MyNCI: Student Information Tool

IEEE Website Requirements Specification Document

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Course Name: *BSc (Honours) In Technology Management*

Course Specialisation: *Business Analysis*

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Declaration Cover Sheet for BSHTM4 Project Submission

SECTION 1 *Student to complete*

| **Name:** |
| Daire Byrne |
| **Student ID:** |
| x13505413 |
| **Supervisor:** |
| Dr Eugene F.M. O'Loughlin |

SECTION 2 Confirmation of Authorship

The acceptance of your work is subject to your signature on the following declaration:

I confirm that I have read the College statement on plagiarism (summarised overleaf and printed in full in the Student Handbook) and that the work I have submitted for this assessment is entirely my own work.

Signature: Daire Byrne

Date: 10th of May, 2017

NB. If it is suspected that your assignment contains the work of others falsely represented as your own, it will be referred to the College's Disciplinary Committee. Should the Committee be satisfied that plagiarism has occurred this is likely to lead to you failing the module and possibly to you being suspended or expelled from college.

Complete the sections above and attach it to the front of one of the copies of your assignment.

What constitutes plagiarism or cheating?

The following is extracted from the college's formal statement on plagiarism as quoted in the Student Handbooks. References to "assignments" should be taken to include any piece of work submitted for assessment.

Paraphrasing refers to taking the ideas, words or work of another, putting it into your own words and then crediting the source. This is an acceptable academic practice provided you ensure that credit is given to the author. Plagiarism refers to copying the ideas and work of another and misrepresenting it as your own. This is completely unacceptable and is prohibited in all academic institutions. It is a serious offence and may result in a fail grade and/or disciplinary action. All sources that you use in your writing must be acknowledged and included in the reference or bibliography section. If a particular piece of writing proves difficult to paraphrase, or you want to include it in its original form, it must be enclosed in quotation marks and credit given to the author.

When referring to the work of another author within the text of your project you must give the author's surname and the date the work was published. Full details for each source must then be given in the bibliography at the end of the project.

Penalties for Plagiarism

If it is suspected that your assignment contains the work of others falsely represented as your own, it will be referred to the college's Disciplinary Committee. Where the Disciplinary Committee makes a finding that there has been plagiarism, the Disciplinary Committee may recommend:

- That a student's marks shall be reduced.

- That the student be deemed not to have passed the assignment.

- That other forms of assessment undertaken in that academic year by the same student be declared void.

- That other examinations sat by the same student at the same sitting be declared void.

Further penalties are also possible including:

- Suspending a student from college for a specified time.

- Expelling a student from college.

- Prohibiting a student from sitting any examination or assessment.

- The imposition of a fine.

- The requirement that a student to attend additional or other lectures or courses or undertake additional academic work.

Contents

1. Requirements Elicitation & Analysis Planning

1.1   Introduction

MyNCI is a student App for the National College of Ireland located in the IFSC in Dublin. This project will require the gathering, analysation and documentation of the functional and non-functional requirements for the development of the App. The reasoning for this project is to do with the current App available to the student body to download. The Apps demographic is the student's union. The App is broken and has a connectivity problem making it unusable to students. Another reason for picking this project is due to a feeling that students may be at a disadvantage not having access to an NCI app in comparison to other 3rd level colleges. College students in DCU, UCD and TCD have access to a college affiliated apps called. The applications are available on the Google play store and Apple store. The apps give students access key features including time tables, modules, customisable calendars and other features. In recent years' Higher education officials are concerned at the high dropout rate and students not progressing past the first year in math related and IT courses which in NCI is relative to the majority of the courses. This included 1 in 6 not progressing to the second year between 2012-2014. The project I am currently working on will be targeted towards the under-grad and post-grad student body from first year to masters.

The project will involve a huge amount of stakeholder input. Various different elicitation techniques will be used to gather information from the stakeholders. The initial task of gathering the requirements will involve a large volume of input from various elicitation techniques that have been proven effective. Brainstorming sessions with stakeholders will be implemented from a very early stage to obtain different potential ideas that come forward. The brainstorming session will be concluded with a document analysis procedure that will allow a report for the findings to be produced and analysed. Interviews will also be a dominant part of the project. Interviews will allow the main stakeholders to voice their opinion on major requirements that they feel will be crucial or essential on the App. Numerous interviews will take place involving four different stakeholders. The use of surveys in the project will also be utilized for requirements elicitation. The survey will be used on a much bigger scale compared to the interview process which will only target four stakeholders. The survey process will allow me to identify numerous amounts of features desired in the app and how the stakeholder ranks their priority to the MyNCI app. During the life span of the project the business need and elicitation techniques may be changed or added due to a change in direction of the app. This may be due to requirements being ejected or new requirements added due to the Agile approach being used as opposed to the traditional waterfall approach. Prototyping will also be utilized using wireframes and also requirements workshops.

Part of the elicitation techniques used will help in the appearance of the app and how the features acquired though the requirements will look on the App. This part of the project will be developed though prototyping of the app. The features that will feature on the MyNCI app will be prioritized using techniques such as MoSCoW analysis.

The project will benefit from the use, understanding and development non-functional requirements analysis, Agile methodologies and prioritisation techniques such as MoSCoW analysis.

1.2   The Business Need:

NCI has never had a functional app like most other 3rd level colleges. NCI have been allowing students to access their time tables, exams results, modules and notes though Moodle. Moodle has been very well received by most students but a demand for an App has not been addressed correctly. The demand for the app has emerged due to the amount of time and effort exerted when navigating through numerous pages and logins to retrieve exam results, timetables, e-mails and other features accessible on Moodle. The current app in regards to the college is the NCISU App but lacks functionality along with connectivity problems which have come to light in the review section of the google play and apple store deeming it a 1-star app. This has increased pressure for the development for an app. With the high rates of college drop outs in Ireland particularly first year students the college feel like it will be highly beneficial to students to have an app.

With the notable issues associated with Moodle and the numerus page logins and information being scattered though out the student portal the college feel it will be of mutual acceptance and benefit that an app be developed that allowed students to access all of these features on the same platform. The same platform design of the app will allow the students to access material and features faster and easier. The college feel that having the information so readily available will increase attendance to lectures, labs and keep students updated more so than though the Moodle and e-mail systems currently in place.

Exam results can also be hard to access tough the navigation system of the student portal. Students have complained about this. The college feel that an App where Continues assessment results are available along with exam results will be beneficial to the students. The college feel student to student communication could be improved in the college. The main way of communication on Moodle is though their messaging system that a lot of students do not avail of. The main fault with the Moodle messaging system is the poor notification system. The message can only be viewed once going through various different log in screens. The college suspects that students are using other means of contact such as social media. The collage would like to keep this communication on a college platform as this means every student will have access to this communication feature.

The requirements specification document using IEEE standards that will be complete following the completion of this project can be used to design the desirable app.

Approach:
Due to the possibility of changing requirements the MyNCI app project would be best suited to an Agile approach as opposed to a traditional approach. By adapting an agile approach, the MyNCI app will foster change and allow stake holders to add new requirements as the project progresses as opposed to a traditional waterfall approach where requirements are set out at the beginning and can be timely and increase costs significantly.

1.3   The Business case:

The college have decided to develop this app for non-profit reasons. Other colleges have similar apps in place in their colleges this is not only in Ireland but in other countries such as Australia, USA, UK and Canada. The reasoning for developing this app is to help students. The college understands that they cannot decide the features that the app will have but will use the help of various stakeholders to gain a vantage point on the project by taking advantage of their different viewpoints throughout the college and different areas.

The app will be designed to make it easier for students to navigate, communicate with other students and include various features to make their college experience easier to manage and enjoyable. Though the eyes of the various different stakeholders involved in this project the college hopes to include as many of the features requested in regards to how strong the requirement is. The development of this app is expected to benefit students and help them adjust to college life by having this information on a readily accessible platform. By accommodating the students' needs the college hope the drop out and fail rate will drop. Upon the project's completion it is desired that MyNCI will be able to compete with the likes of UCD, TCD and DCU who all have a strong online presence though their apps.

Before undertaking this project, it must be understood that there are risks that are present though out the elicitation and development phases of this project. It is of utmost importance that the stakeholder's needs are printed clearly and understood with complete clarity by both the business analysist and the developer. The requirements must be complete, clear, correct and consistent. The development phase will require a lot of thought and the potential programmer must be interviewed in depth to ensure that they are not incompetent. An incompetent programmer could undermine the whole project. The requirements specification document could be perfect but in the hands of the wrong developer could drain the value from the project. If the project is not completed in the correct manor it could lead to a useless app, create tension with stakeholders and increase costs. It is important to the health of the project that all requirements are discussed in a face to face environment.

It is crucial that the app is easy to navigate and easily accessible. A difficult app is easy to misuse and cause students not to extract the full value. As the app is released it would be a good idea for students to have a tutorial available to them either within the app or externally i.e. though the college campus. Any user who will be adding information such as update from the student's union must be trained on how to update information on the app. This is important as it decreases confusion and allows information that may be important to the students to be uploaded faster. These risks can be avoided by putting in the proper procedures to help manage them before or when they accrue.

1.4   Stakeholders List & Power/Influence Matrix:

A.   Business Analysist
B.   Project Owner
C.   Developer
D.   The student body
E.   Student services
F.   The Student Union representative
G.   Clubs and society representative
H.   Norma Smith Library
I.   IT services
J.   NCI Lecturer representative
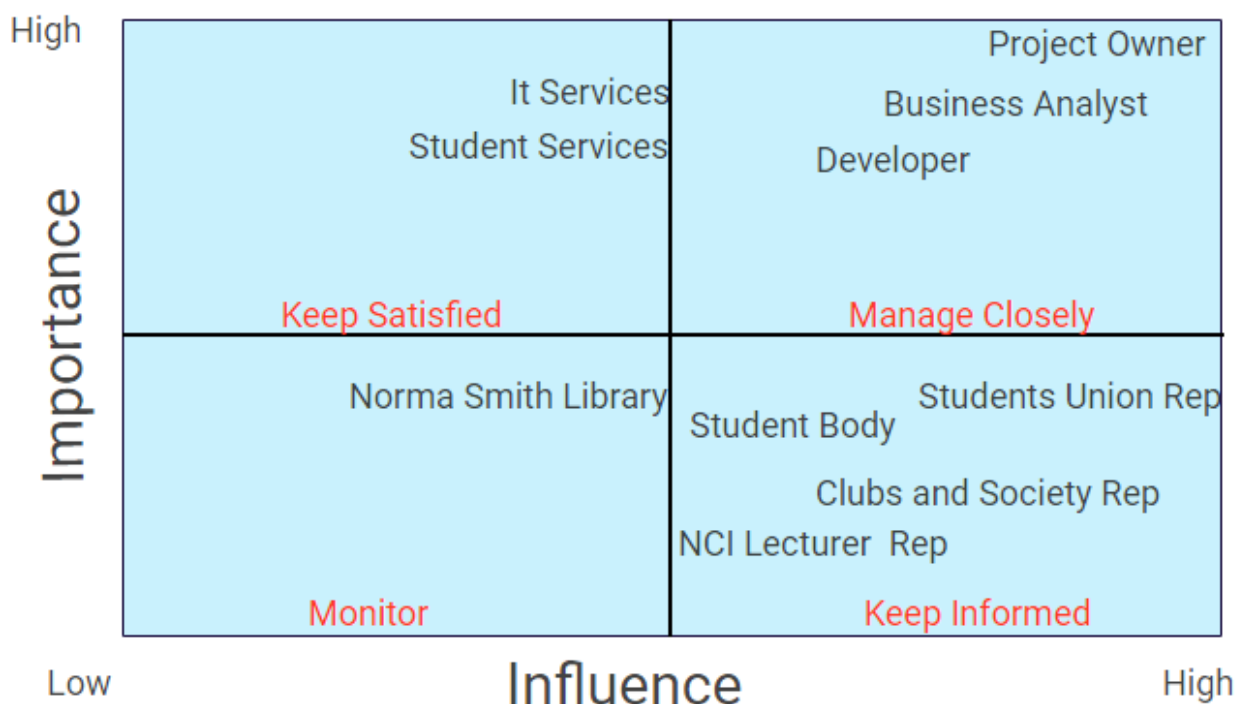
Importance/Influence Matrix in regards to NCI App:

The Importance/ Influence matric shows where the stakeholders rank within the project. In relation to the MyNCI app the business analyist and the product owner are the most important to the project. They are the most important as the Product owner would have the final say in the requiremnets list and how the app will be designed when the prototype is compelted. The business analyist is also in the higher right quadrant because of the dept of understanding is very detailed and the business analyist must undertand the stakeholder requirnments with percise calrity. The bottom right quadrant of the matrix contains the stakeholders with the very high influence on the project in the case of the MyNCI app is the student body representatives, clubs and societies representative, student union representative and the NCI students representative. They are located in the bottom right qaudrant because the information gatherd from them during the eliciation process is going to shape the final App and the contents. The lower left quadrant contains the stakeholders that have a lower influence and lower importance on the project in terms of the MyNCI app this is the Norma Smith Library . They will have an influence on the app just not as much as the stakeholders in the bottom right quadrant. The top left quadrant contains the stakeholder of high importance but have little influence to the NCI app. They are still important just not as important as the stakeholders in the top right/ bottom right. This area contains students services.

1.5   Requirnments Elicitation Techniques
1.5.1 Survey

Survey Participants:

The student body:

    a.   1st year student

    b.   2nd year students

    c.   3rd year students

    d.   4th year students

    e.   Post Graduate

Distribution:

There were various different methods of distribution used for the survey:

1) The surveys were distributed throughout the NCI campus for student to fill out. This process involved printing the survey and approaching students that were sitting in the canteen area and around the atrium.
2) Another method of distribution was contacting Dermott Bradfield a lecturer in NCI who agreed to share my survey that was created though Google forms on his Moodle page for his current students to access.
3) The survey was also shared using a link on various social medias such as Facebook, Twitter and Instagram.

Objectives:

The object of the survey is to gain an insight in to how the student body of NCI would feel about a new App. The survey will also gather requirements for the NCI App. The survey questions are also designed to evaluate how much of a demand there is for different features. The survey allows the view points from different year groups by identifying them at the beginning of the survey. The survey will allow the business analyst to learn more about the target audience. The survey allows a positive relationship between stakeholders.

Questions:

Q1: What year are you currently in?

- 1st year
- 2nd year
- 3rd year
- 4th year
- Post Grad

Q2: As an NCI student how interested would you be in the MyNCI App?

- Definitely
- Very probably
- Possibly
- Probably not
- Definitely not

Q3: On a scale of 1-5, 1 being the lowest how beneficial would MyNCI be to students
- 1
- 2
- 3
- 4
- 5

Q4: How often would you say you check Moodle for course related updates?
- 3+ times a day
- 1-2 times a day
- 3+ times a week
- 1-2 times a week
- 3+ times a month
- 1-2 times a month

Q5: How do you currently contact your class mates in relation to course work?
- Facebook
- Viber
- WhatsApp
- SMS
- Other _____

Q6: If available on the MyNCI App which would you use?
- Clubs and Societies
- Norma Smith Library
- NCI Restaurant
- Students Union
- Student Support

Q7: Are you part of any clubs and societies? if so, please tick below

Are you part of any clubs and societies? if so, please tick below
- Badminton
- Basketball
- Chess
- Gaelic Football
- Golf
- Hockey
- Hurling
- Karting
- Pool and Snooker
- Soccer
- Table Tennis
- Tennis
- Ultimate Frisbee
- Art
- Business
- Christian Union
- Comedy
- Computing
- Dance
- Darts
- Fantasy Football
- Fashion
- Peer Mentor
- Reachout
- Wargames
- Xbox
- None
- Other _____

Q8: How would you rate the current NCI app
- Very Good
- Good
- Acceptable
- Poor
- Very Poor
- Never accessed the app

Q9: How interested would you be in a Recent News section regarding your course within the

MyNCI App?
- Definitely
- Very Probably
- Possibly
- Probably Not
- Definitely Not

Q10: How important do you feel a feature for student support in regards to leaning difficulties

would be?
- Very Important
- Important
- Moderately Important
- Of little importance
- Unimportant

Q11: MyNCI should display student discounts and vouchers, Do you
- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

Q12: How important do you think a course notification system would be for MyNCI

(timetable changes, deadlines, etc.)
- Very Important
- Important
- Moderately Important
- Of little importance
- Unimportant

Q13: If MyNCI had a course community board do you think it would increase communication

and prevent social loafing?
- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Q14: Would you be interested in an integration system between MyNCI and other social

medias where updates can be shared?
- Yes
- No
- Maybe

Link to survey:

1.5.2 Interviews:

Interview one: The Student Union

Participants:

Senior member of the student's union

Interview location:

 The location of this interview took place in Lab 2.04 on the National College of Ireland campus

Date of interview:

The interview took place on Thursday the 02/03/2017.

Time of Interview

The interview was conducted at 3:01 pm and lasted 13 minutes and 22 seconds.

Objective of this interview:

Understanding the view of the student's union in regards to how they feel about the app and their understanding of the app. How they feel and rank certain features in regards to the way the student's union will be represented on the MyNCI app. By conducting this interview issues with the app can also be recognised, addressed and resolved also resulting in requirements for the MyNCI App. This interview will be of significance due to the app that already exists. The app that already exists for the NCISU does not function correctly. The input and ideas that went in to their failed app could be beneficial for the MyNCI App. The senior member of the student's union will give us an insight in to what way the students unions feature on the app will be displayed and as a stake holder will supply the business analysist with key requirements that will be incremental to the development of the student's union feature on the MyNCI App.

Interview Questions:

MyNCI is an App that will be developed for the students of NCI. The purpose of this Interview is to get the opinion of the NCI students Union and how they would feel about the App through a series of confidential questions. The MyNCI app will involve communication between courses, timetables, exam results etc. The interview will help gather requirements for the app

Q1: would a student's union feature for the MyNCI app be beneficial to the students like the surveys suggested? Why? (54% percent of students asked said they would use thus feature)

Q2: would this feature be successful in increasing student's awareness to upcoming student events. This refers not only to party related events but also events like mental awareness week and shag week that take place during the academic year?

Q3: Do you think this section would bring more students to the Students Union events? If so why?

Q4: it would be possible to link a vouchers/ student discount area within the student's union feature? (over 95 percent of students stated they were interested in this idea) would this be a welcomed combination? why?

Q5: The NCISU already has had an application launched on the app store. The app itself lacks basic functionality and has connection problems. Results from the survey shows that 52% of students never accessed it and 23 percent of students rated it poor or very poor. Are you aware of this app and if so where do you think the app development went wrong?

Q6: There are loads of different features that other college apps such as DCU, TCD and DIT avail of are there any other features not discussed in this interview that you would like to mention?

Interview two: Clubs and Societies

Participants:
The interview was conducted with the founder and president of a society (Not names due to anonymity) in National College of Ireland.

Interview location:
 This interview took place in Lab 3.04 on the national college of Ireland campus.

Date of interview:
This interview was conducted on Monday 06/03/2017

Time of Interview:
The time of the interview was 2:34 pm and lasted 11 minutes and 54 seconds.

Objective of this interview:
The objectives of this interview was to get an understanding of how the clubs and societies members feel about the MyNCI app and their understanding of the app. Areas addressed during the interview include how they feel and rank certain features in regards to clubs and societies, the benefits of the clubs and societies to the MyNCI App and other features not mentioned or addressed that may add value to the MyNCI app. By conducting this interview issues or concerns with the app can also be recognised, addressed and resolved also resulting in requirements for the MyNCI App. The founder of the unnamed society was selected and interviewed as representative for the clubs and societies community as he has had 3 years' experience running a society, managing members and trying to create awareness for multiple societies that he is heavily involved in. This level of commitment and dedication made him a suitable candidate to gather suitable, honest and reliable feedback from the selected questions.

Interview Questions:

Q1: Would a clubs and society's feature on the MyNCI app be beneficial to students? If so why?

Q2: Would a clubs and society's notification system be a success in terms of keeping students up to date with what is going on in their selected club(s)?

Q3: If students could sign up to clubs and society's though the MyNCI app do you think more students would? why?

Q4: Would it be acceptable for NCI SU and Clubs and Society's to be under the same feature page? Why?

Q5: There are loads of different features that other college apps such as DCU, TCD and DIT avail of are there any other features not discussed in this interview that you would like to mention?

Interview three: NCI Lecturer representative

Participants:
 This interview was conducted with an NCI Lecturer.

Interview location:
This interview took place on the National college of Ireland Campus.

Date of interview:
The interview took place on Tuesday 14/03/2017

Time of Interview:
The interview took place at 13:30 pm and lasted 16 minutes 22 minutes

Objective of this interview:
The objective of this interview was to get requirements for the MyNCI app though a series of question that were directed towards an NCI lecturer. The reason for interviewing an NCI Lecturer was to get the perspective of someone who is not a student but is in direct contact with students on a daily basis. The idea was that the lecturer would be able to provide insights in to specific features that would add value to the user experience of the App.

Interview Questions:
Q1: Would a moderator role for lecturers be a successful feature for the MyNCI app? Why?

Q2: Do you think that the MyNCI app should be broken up? i.e. By year groups or by class groups? Why?

Q3: Do you think a notification system that reminds students of rescheduled classes/ extra classes would improve attendance to the classes? do you think the same could be applied to reminders for ca's and would it be successful in terms work quality as they are getting reminded in advance?

Q4: Do you think having access to student support such as academic help from the MyNCI App would make it more approachable

Q5: As a lecturer would you like some sort of communication between you and the students as an alternative to email?

Q6: Is there any other features that have not been mentioned above that could be suggested?

Interview 4: Developer

Participants:
This interview was conducted with a Developer

Interview location:
This interview took place on the National college of Ireland Campus.

Date of interview:
The interview took place on Tuesday 22/03/2017

Time of Interview:
The interview took place at 16:34 pm and last 16 minutes and 22 minutes

Objective of this interview: Interview 4: The purpose of this interview with a developer was to get a clearer understanding of what the MyNCI app will be able to provide from a functional point of view. This interview gives us details on security features and functional features spread throughout the MyNCI app. This interview will give me the ability to prioritise requirements based on their complexity. The results will be used for analysis during a MoSCoW Analysis.

Questions:
Q1: Could it be possible if necessary to link the MyNCI App with Moodle, this would involve a feed of Course data (Modules, notes and details regarding the module), How?

 Sub question: Would they be able to upload ca's from the app?

 Q2: Would it be visible to add a notification system within the MyNCI app and how would this notification system work? The notification system would include Ca reminders, Applications being reviewed, emails, reminders and upcoming events. How would this be accomplished?

Sub question: would this notification system be able to be customised according to the students need?

Question 3: Would it be possible to have a link between Facebook and the MyNCI App. This would include sharing Content from the MyNCI app with your personal Facebook?

Question 4: If necessary would it be possible to display YouTube videos on the MyNCI app that would allow course specific videos to be accessible on the MyNCI app? How?

Sub question: If required would it possible to link the summon and exam past papers database to the MyNCI app?

Question 5: Would it be possible to use a single sign on feature? This meaning that when I log in to the app I am automatically logged in to my student email, summon and My details?

Question 6: Would it be possible to book the group room in the library though the MyNCI app?

Question 7: What sort of safety percussions can be implemented in to the MyNCI app that ensures that their password and details are safe?

Question 8: Would an Administrator role be possible on MyNCI app?

1.5.3 Brainstorming:

Why brainstorming?
Brainstorming allows you to collect and gather information about the App from different viewpoints. The brainstorming session will allow different stakeholders to hear different opinions and how each stakeholder feels about certain features

What is the objective?
The objective of the brainstorm for the MyNCI app was to get students for different colleges together to discuss the idea of the MyNCI App. The reason for having other students from various colleges was due to their respective colleges all having a student based app available to students. One of the main objectives was to understand from the viewpoint of other students which features were most beneficial to them and what features MyNCI could have to reach its full potential.

Who will take part:
Five different students from four different colleges took place in this brainstorm. The colleges included

- Two National College of Ireland
- Dublin City University
- Dublin Institute of Technology
- University College Dublin

Location of brainstorm:
The brainstorm took place at Café Venue at Debenhams Henry street
Date of brainstorm:
This brainstorm took place on Wednesday the 02/11/2016
Time of brainstorm:
This brainstorm took place at 3:32pm and lasted 26 minutes.
Brainstorm guidelines:
  a) Mobile phones must be switched off or on silent mode
  b) Attendees must not discuss their views prior to the brainstorm with other participants.
  c) Participants must defer judgment on other participants.
  d) Participants must not interrupt each other and one conversation at a time.
  e) Accept every idea and opinion as no one is wrong in this situation.
  f) Participants are required to arrive early to ensure the brainstorm commences on the allotted time.

1.5.4 Prototype:

Objective of the prototype:
The objective of constructing a non-functional prototype using wireframes was to show a visual representation of the MyNCI app for stakeholder to view what the finished product might look like. By making a first draft of wireframes the use of a requirement workshop may indicate that maybe some requirements were not best suited to the MyNCI app and it may be more evident when the potential layout of the MyNCI app is graphically displayed. The first set of wireframes will be conducted by hand using sketches but the second set of wireframes will be made using online software that will display any potential changes that the stakeholder might want to make. This includes removing or adding content.

Participants:
1. The clubs and Societies representative
2. The student's union clubs and societies representative
3. Two NCI Students
4. Business analysist.

1.5.5 Requirements Workshop:

Objective:
The objective of the requirements work shop is to discuss the layout of the NCI app and the design elements of the app. The idea of this workshop is to allows the stakeholders an indication of how the app is going work and gain a generally understanding of the features. This involves improving on the prototype provided this can be done by comparing to other apps from other colleges. following the workshop, the goal is to have a general understanding of the app and how it will work while also gaining information about potential features that may not have been picked up during the elicitation process. This information will be presented in the final prototype that can be analysed by the developer.

Participants:
- Business analysist
- Two NCI students
- The Students union representative that took place in the interview.
- The Clubs and Societies representative that took place in the interview

Workshop location:
The requirement workshop took place in room 3.04

Date of workshop:
The work shop took place on the 24/4/2017

Time of workshop:
The workshop took place at 11:00 am and lasted 56 minutes and 18 seconds

2. Requirements elicitation results and conclusions:

2.1   Survey results & conclusion:

What year are you currently in?
87 responses
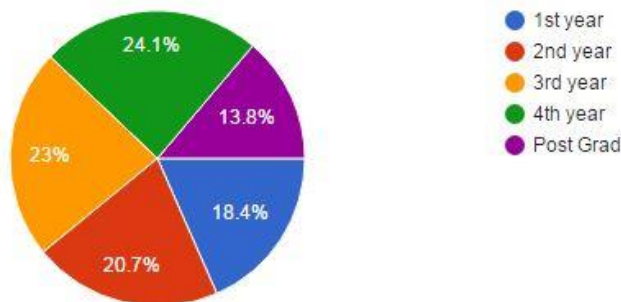
- ● 1st year
- ● 2nd year
- ● 3rd year
- ● 4th year
- ● Post Grad

24.1%
13.8%
23%
18.4%
20.7%

As an NCI student how interested would you be in the MyNCI App?
87 responses

- ● Definitley
- ● Very probably
- ● Possibly
- ● Probably not
- ● Definitely not
- ● Very propably

26.4%
35.6%
33.3%
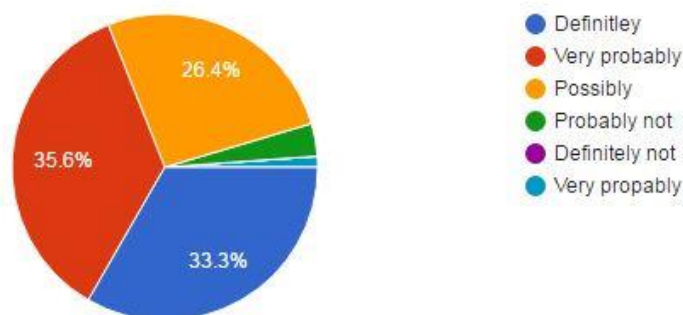
On a scale of 1-5, 1 being the lowest how beneficial would MyNCI be to students
86 responses

1 (1.2%)
9 (10.5%)
14 (16.3%)
33 (38.4%)
29 (33.7%)
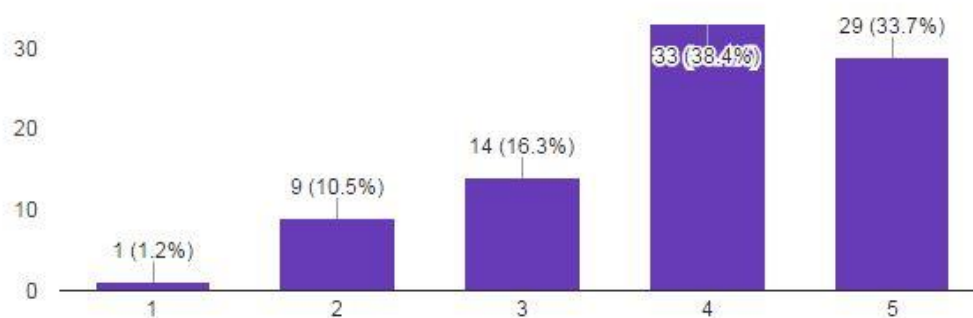
How often would you say you check Moodle for course related updates ?

87 responses

- 3+ times a day
- 1-2 times a day
- 3+ times a week
- 1-2 times a week
- 3+ times a month
- 1-2 times a month

26.4%
39.1%
21.8%
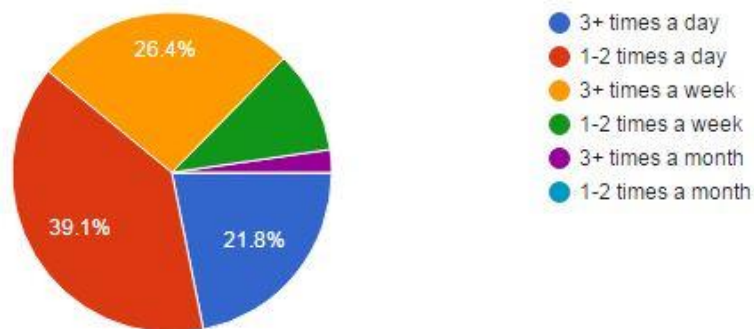
How do you currently contact your class mates in relation to course work?

86 responses

Facebook	54 (62.8%)
Viber	36 (41.9%)
WhatsApp	49 (57%)
SMS	18 (20.9%)
Other	3 (3.5%)
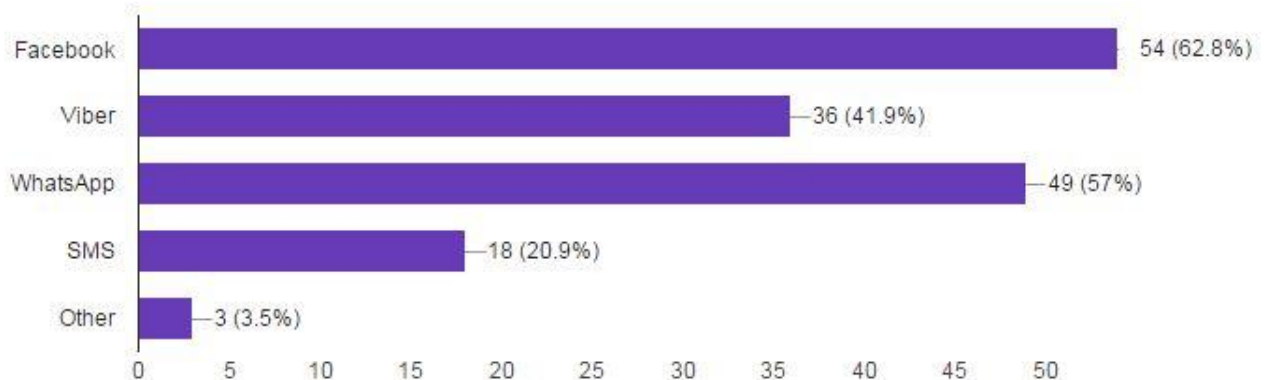
If available on the MyNCI App which would you use ?

86 responses

Clubs and S...	45 (52.3%)
Norma Smit...	58 (67.4%)
NCI Restaur...	25 (29.1%)
Students Uni...	47 (54.7%)
Student Sup...	51 (59.3%)
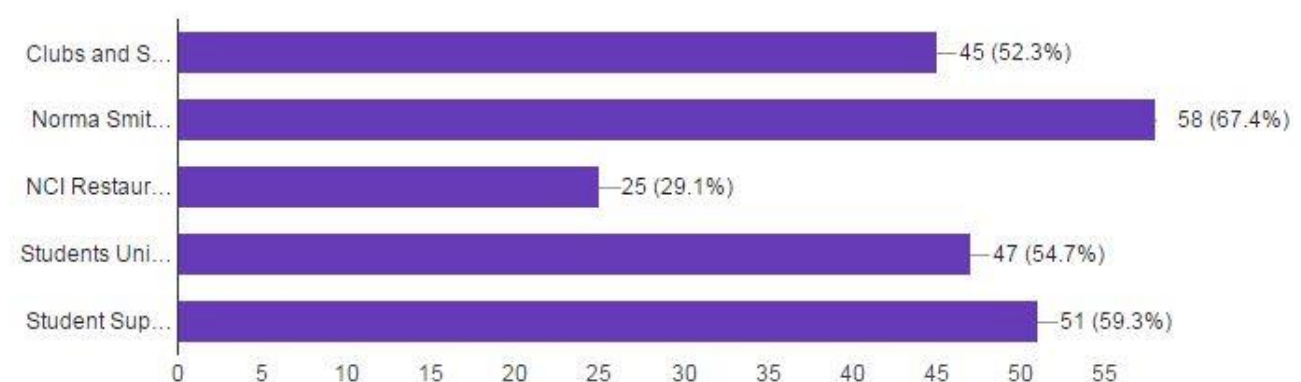
Are you part of any clubs and societies? if so, please tick below

84 responses

Club/Society	Count
Badminton	4 (4.8%)
Basketball	14 (16.7%)
Chess	4 (4.8%)
Gaelic Football	3 (3.6%)
Golf	1 (1.2%)
Hockey	1 (1.2%)
Hurling	0 (0%)
Karting	2 (2.4%)
Pool and Snooker	6 (7.1%)
Soccer	15 (17.9%)
Table Tennis	2 (2.4%)
Tennis	1 (1.2%)
Ultimate Frisbee	3 (3.6%)
Art	1 (1.2%)
Business	2 (2.4%)
Christian Union	0 (0%)
Comedy	4 (4.8%)
Computing	6 (7.1%)
Dance	2 (2.4%)
Darts	1 (1.2%)
Fantasy Football	0 (0%)
Fashion	1 (1.2%)
Peer Mentor	1 (1.2%)
Reachout	0 (0%)
Wargames	0 (0%)
Xbox	8 (9.5%)
None	32 (38.1%)
Other	5 (6%)

How would you rate the current NCI app

87 responses
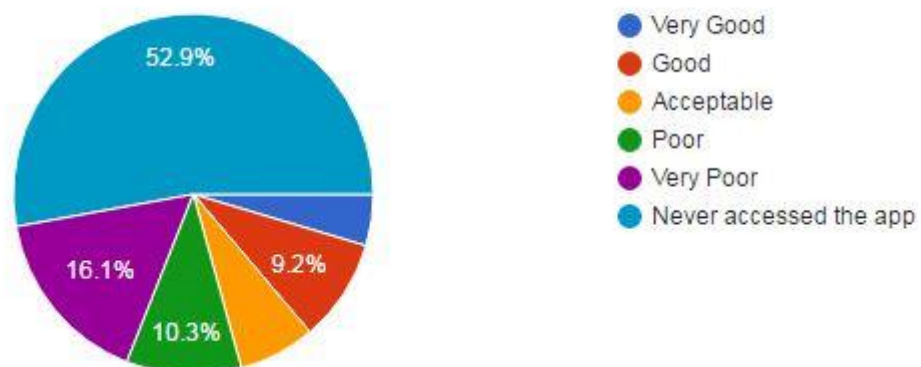
Pie chart legend:
- Very Good
- Good — 9.2%
- Acceptable
- Poor — 10.3%
- Very Poor — 16.1%
- Never accessed the app — 52.9%

How interested would you be in a Recent News section regarding your course within the MyNCI App?

87 responses

- Definitely
- Very Probably
- Possibly
- Probably Not
- Definitely Not

31%
33.3%
32.2%
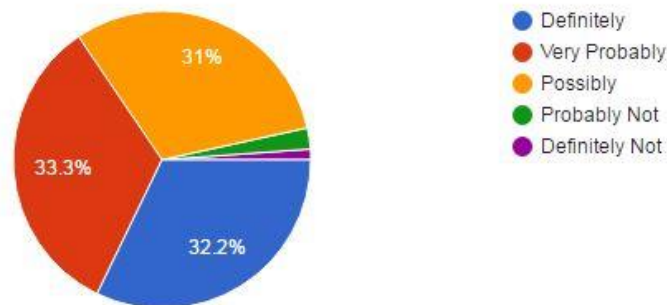
How important do you feel a feature for student support in regards to leaning difficulties would be ?

87 responses

- Very Important
- Important
- Moderately Important
- Of little importance
- Unimportant

35.6%
20.7%
42.5%
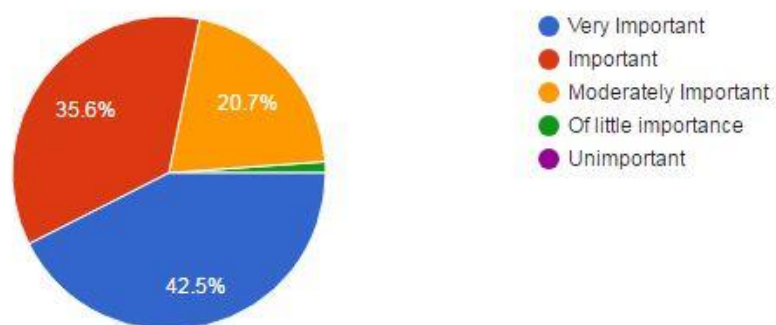
MyNCI should display student discounts and vouchers, Do you

86 responses
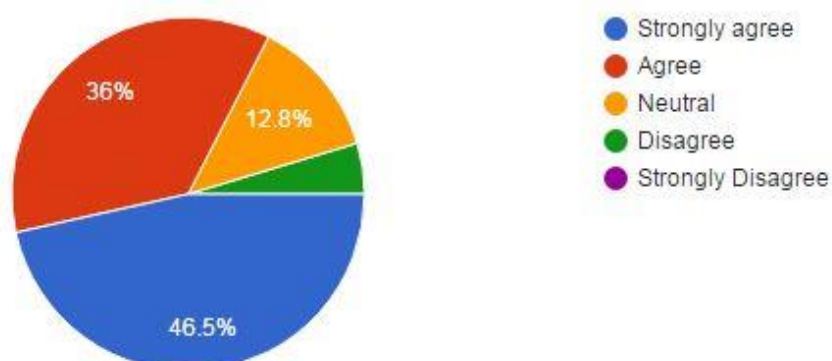
- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

36%
12.8%
46.5%

How important do you think a course notification system would be for MyNCI (timetable changes, deadlines, etc.)

86 responses
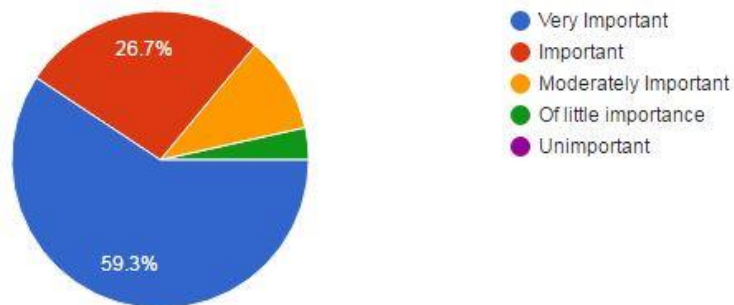
- Very Important
- Important
- Moderately Important
- Of little importance
- Unimportant

26.7%

59.3%

If MyNCI had a course community board do you think it would increase communication and prevent social loafing?

87 responses
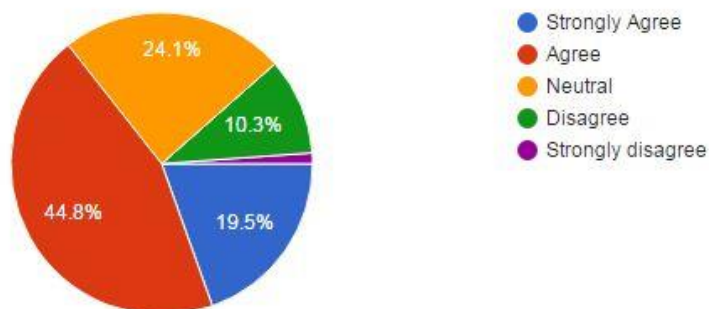
- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly disagree

24.1%

10.3%

44.8%

19.5%

Would you be interested in an integration system between MyNCI and other social medias where updates can be shared?

87 responses

- Yes
- No
- Maybe

23%

21.8%

55.2%
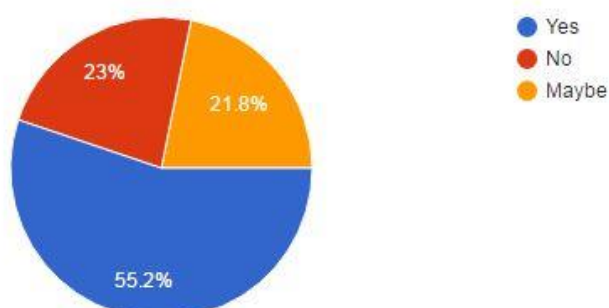
Survey Conclusion:

The survey was conducted among the students of NCI. The survey was conducted over the space of 2 weeks and the stakeholders involved in the elicitation varied in year group allowing a view point from five different year groups. This is shown in question one. The results of question one show that the sample group of 87 students that took the survey captured a good distribution of class groups (1st years: 18.4% 2nd years: 20.7% 3rd years: 23% 4th years: 24.1% postgrad: 13.8%). This allowed the survey to be balanced and not skewed towards one-year group and only capturing their opinions in regards to the MyNCI App. A balanced viewpoint was desired before the survey took place and was a main objective. The results from the survey are based off the 87 results that were obtained though both personal interactions on the NCI campus and also though an online medium. The results are displayed graphically though Google Forms. The survey results indicated that every student that took place in the survey was in some way interested in the MyNCI app with 33.3% of students answering 'Definitely' (question 2). Of the 87 students that took place when asked to rate how beneficial MyNCI would be to students 84% percent rated between 3-5 (1 being the lowest and 5 being the highest). From the first three questions it is clear that there is a high demand and interest for the MyNCI App. Of Students who took the survey 39.1% check Moodle 1-2 times a day and 21.8% stated that they check Moodle for course related updates 3+ times a day. This shows that students are heavily dependent on Moodle for updates in regards to their modules and course work. This sort of response could relate to the question regarding current news section in regards to their course with 32.2% of students answering 'Definitely', 33.3% answering 'Very Probably' and 31% answering 'Possibly' leaving only 3 % of students not interested in the recent news system. The survey results also indicated that a lot of students are interested or are involved with the student's union and also with clubs and societies. 52.3% of students stated that they would use the clubs and societies feature on the MyNCI app and 54.7% of students stating they would use a student's union section. This shows a strong demand for these features on the MyNCI app. Although the results and demand for the student unions and clubs and societies is very high the students stated that the two most desired features are Norma Smith Library (67.4%) and Student Support access (59.3%).

Results of the survey:

After analysing the survey results the results clearly show there is a requirement for:

- Course related updates must be available on the MyNCI app.
- A link between Moodle and the app
- A clubs and societies feature/page
- A student's union feature/page
- A Norma Smith Library feature/page
- A Restaurant feature/page
- A student support feature/page
- A discounts/vouchers feature/page
- A recent news feature/page
- A communicated board for year and course specific groups.
- A notification system for MyNCI.

2.2   Interviews results and conclusions
2.2.1   Interview one conclusion and results:

Interview questions for NCI Students Union:
MyNCI is an App that will be developed for the students of NCI. The purpose of this
Interview is to get the opinion of the NCI students Union and how they would feel about the
App through a series of confidential questions. The MyNCI app will involve communication
between courses, timetables, exam results etc. The interview will help gather requirements for
the app

**Q1: would a student's union feature for the MyNCI app be beneficial to the students like
the surveys suggested? Why? (54% percent of students asked said they would use thus
feature)**

- Yes, of course there are many benefits to be had with the student's union feature on
  the App I think it would actually be one of the main features used on the app. I think
  that it would help students make a lot more friends *how?* Like if the student's union
  posted about activities and parties that were going to happen more people might be
  more informed and come down as opposed to the SU not having any presence on the
  App.
- It could also make them more aware were the physical SU is located. Because the SU
  is very out of the way down in the basement near the car park and a lot of new
  students might not be aware it exists. Because in my opinion from the atrium there is
  no indicator that it is located down there. It would be great if it was also represented
  on the app though a campus map or something like that.
- Could offer information about events and competitions as well.
- Also I think it is import to show the SU in a different light I know a lot of people
  think that the SU is normally associated with drinking and partying etc. but it's not it
  is also a scene of community and there is a lot a good people to interact with and
  socialise with.

**Q2: would this feature be successful in increasing student's awareness to upcoming
student events. This refers not only to party related events but also events like mental
awareness week and shag week that take place during the academic year?**

- Yes, that is exactly what I was saying in the previous question. Showing students that
  it is also about socialising and being part of community. It is like a family.
- A lot of students do not use the notice boards enough and events just get passed by
  and then people often do not find out about tickets or details until the event about to
  take place or over. We do have notices on Facebook but not every student is on
  Facebook or if they are they may not be connected with us. *Do you think an
  integration system between the app feature and the Facebook page for the SU would
  be a successful way of spreading awareness of upcoming events?* Yeah defiantly I
  think the idea is solid it's just the way that it is integrated will be away of judging
  whether it can be successful. But the idea is certainly there.

Q3: Do you think this section would bring more students to the Students Union events? If so why?

- Of course in any situation where more information is available it will become more popular.
- The more events are publicised the more attention they will get allowing a wider audience of students to have details and information for the event.
- *If the information is there and clear it could attract more students what type of students could you attract that you are not already reaching?* I think it would attract more mature students at the moment not a lot of mature students attend the events or go to the SU compared to the younger group.

Q4: it would be possible to link a vouchers/ student discount area within the student's union feature? (over 95 percent of students stated they were interested in this idea) would this be a welcomed combination? why?

- I think this feature would be widely appreciated by students and would be a great idea. Especially if students are on a budget.
- I also think that it would give the students more of an initiative to visit the student's union section of the app.
- (Could be integrated with the notification system)

Q5: The NCISU already has had an application launched on the app store. The app itself lacks basic functionality and has connection problems. Results from the survey shows that 52% of students never accessed it and 23 percent of students rated it poor or very poor. Are you aware of this app and if so where do you think the app development went wrong?

- Yes, the app lacks basic functionality and does not work.
- Personally I am not sure who made the app but I would say by looking at it that the app was rushed.

Q6: There are loads of different features that other college apps such as DCU, TCD and DIT avail of are there any other features not discussed in this interview that you would like to mention?

- Meet the team section that has info about the Su main staff like the president etc.
- Forum/ communication board *expand?* I mean for students to chat, requests for events, sign up for competitions etc.
- A blog of some type

Interview one conclusion:

The interview with the student's union representative was very informative and resulted in various different requirements. The objective of the interview was to understand the view of the student's union in regards to how they feel about the app and their understanding of the app. How they feel and rank certain features in regards to the way the student's union will be represented on the MyNCI app. By conducting this interview issues with the app can also be recognised, addressed and resolved also resulting in requirements for the MyNCI App.

Q1: validated the point that a student's union feature on the MyNCI app would be very beneficial to the student body as previously suspected. It was state that it would be one of the main attractions to the app. It is believed that the student's union presence will allow students to make more friends though posting of activities and party's that are going on (use of a notice board could be used here). The presence on the app will allow more student's to be aware of the physical presence of the student's union on the NCI campus as it can be hard to locate being down in the basement. The NCISU could be represented on a campus map. The app could also offer information in regards to competitions that may be taking place. The presence on the app could also allow the students union to be cast in a ''different light''. With the idea of attracting new student union members the student's union feature is required.

Q2: addressed the issue of creating student's awareness in regards to upcoming events. This question was based around events like mental health week and shag week that take place during the academic year. It was stated that having the presence on the app and being able to reach more people with the information on upcoming events shows the students union as 'being part of a community'. The App presence of the SU and using features like upcoming events on an online notice board. A request for an integration between the Students union feature on the app and their Facebook app also arose during the interview.

Q3: validated the point that student's union presence on the app would bring more students to the events.

Q4: isolated the idea around vouchers being displayed. This idea was brought forward though survey results in which 95% of students said they would be interested in this idea. It was stated that it would give the students more reason to visit the page. It was also stated that an integration between the notification system and the vouchers could be useful.

Q5: was used as a request for information regarding the already existing standalone student's union app. When the question was asked it resulted in no definitive answers but it was stated that the app seemed to be rushed and it was also acknowledged that the app lacked basic functionality.

Q6: was used as an open table for suggested features not mentioned in the interview. A meet the team page was requested that provided information about the SU staff. Also a forum/ communication board was suggested where student could chat and sign up for competitions as such. A blog for member of the SU to use was also suggested.

Requirements outcomes of interview one:

- A standalone student's onion page
- A student's union notice board
- A campus map locating the SU
- Calendar for upcoming events
- Vouchers/discounts page
- Link between the vouchers and the notification system
- A meet the team page
- Forum/communication board for students to chat/ post quires
- A blog for SU members to use
- Integration between the NCISU feature on the app to be integrated with the NCISU Facebook page

2.2.2 Interview two conclusion and results:

Clubs and society's interview questions:

MyNCI is an App that will be developed for the students of NCI. The purpose of this Interview is to get the opinion of the NCI Clubs and Society's and how they would feel about the App through a series of confidential questions. The MyNCI app will involve communication between courses, timetables, exam results etc. The interview will help gather requirements for the app

Q1: Would a clubs and society's feature on the MyNCI app be beneficial to students? If so why

- Yes, the clubs and societies feature for the App would be very beneficial to students in NCI. It would be beneficial for both new students (1st year) and returning students (2nd year onwards).
- There is a lack of information regarding the clubs readily available for interested students and the use of an app might increase awareness and encourages students to read and acknowledge the large amount and variety of different clubs and societies available to them. You would be surprised the amount of different clubs and societies that would cater to and interest people.
- I think individual pages for each club and society would be the best way to break up the page as it gives every page its own individuality and their own unique way to appeal to students. *What do you mean by that comment?* I mean that it would look odd if the football and Pokémon society for example were on the same page due to their different demographics they are appealing to.
- The App could also encourage meet ups and activities due to more information being available to the users.

Q2: Would a clubs and society's notification system be a success in terms of keeping students up to date with what is going on in their selected club(s)?

- Yes, I think this would be a welcomed addition to the clubs and society app features. The reason being that a lot of texts and emails go un-noticed and could just go passed as spam particularly automate ones.
- The notification system could be used on the persons selected club and spam could be kept to a minimum. B*ut how would the spam on the notification system be different to the spam via sms?* Sorry let me explain more clearly I mean like in comparison to Facebook event groups your provided with more information and its clear unlike getting a text from a random number.
- The notification could then be linked to say an activity that you can RSPV to that will allow the club or society to get a rough headcount of how many people will be attending the event or whatever it is.

Q3: If students could sign up to clubs and society's though the MyNCI app do you think more students would? why?

- Yes of course because in NCI most students across the business streams and computing streams have a day or even two off every week and this means they could miss the sign on day for the clubs and societies during fresher week.
- After the sign on days it seems to be a case of your either in or your out and there's not much more presence of the clubs and society unless you keep your eye on the notice boards. The notice boards are over flowing with different articles, posters (which some are out of date). This causes them to be overlooked.
- Also allowing students to sign up on the app may encourage people who are shy or anxious to sign up as it eliminates the sign on day when the atrium is packed and may discourage them from approaching certain clubs and societies.

Q4: Would it be acceptable for NCI SU and Clubs and Society's to be under the same feature page? Why?

- No, if the clubs and society pages were joint with the student's union page it would be far to cluttered and a bit of an overload to try and find specific information.
- I feel that the SU would get more of the attention because it is generalised in terms of party's and session are really open to everyone and that the clubs and societies are tailored towards specific people
- This club also stop the clubs and societies from being easily accessible not solving the problem that the clubs and society is currently faced with.

Q5: There are loads of different features that other college apps such as DCU, TCD and DIT avail of are there any other features not discussed in this interview that you would like to mention?

- Yes, there are some that come to mind. Off the top of my head there
- The Clubs and societies feature could display results for example results of football matches, snooker matches for everyone to see. Kind of like a results board to acknowledge achievement
- Individual forms for each club *would this be monitored for content or how would it work?* There could be an administrator role put in place for the president or someone like that to authorise comments or even there could be something to stop anything graphic or offensive from being posted like some sort of security feature. But you would have to ask someone else about how that works it is just an idea.
- The moderator/ admin role could also give feedback on the post and solve inquires that are asked by members or potential member.
- A RFQ on the individual pages providing information
- A notice board for each club that can display information in regards to upcoming events or results

Interview two conclusion:

The interview conducted with the clubs and societies representative was very informative. The main objective of the interview was to get an understanding of how the clubs and societies members feel about the MyNCI app and their understanding of the app. Areas addressed during the interview include how they feel and rank certain features in regards to clubs and societies, the benefits of the clubs and societies to the MyNCI App and other features not mentioned or addressed that may add value to the MyNCI app. By conducting this interview issues or concerns with the app can also be recognised, addressed and resolved also resulting in requirements for the MyNCI App. The interview was deemed a success as the interview resulted in a number of requirements for the MyNCI in regards to the Clubs and Societies features.

Q1: question asked had validated the point that a Clubs and Societies feature wold be beneficial to the NCI students. The reason that this feature would be beneficial was because there is a lack of information about the various clubs and societies available to the students. The feature on the App could increase awareness and encourage students to get involved. It was also stated during the interview that each Club and Society should have their own page within the Clubs and Societies feature, the reason for this being to allow each clubs to show their individuality. The individual pages would give the Club or Society a unique way of appealing to students. Another benefit of the feature was the encouragement of meet ups and social interactions.

Q2: also validated the requirement for a notification system. This notification system was said to be a welcomed addition to the clubs and societies feature. It is felt that a lot of texts and email go un answered as they can appear as spam. If the notification system could be altered to be like the way a Facebook event is conducted it could increase interest and attendance for example instead of the text message you are getting an event reminder to which though the app you can RSVP. This could allow a club or society to have a rough head count of how many people will be attending.

Q3: showed the interest for allowing students to sign up for clubs and societies though the app. It is felt that due to different streams having different days off that a high number of students could potentially miss the sign on day that is held during the fresher's week and the start of the first semester. By having information available through the app and allowing students to sign on it would increase the number of students joining different clubs and societies. Also slowing students to sign up though the app would encourage shy students to participate with a club or society as it would eliminate approaching an overcrowded table for information. The sign on would encourage students to sign on all year around as opposed to on that one day.

Q4: indicated that the clubs and societies must have a separate page to the student's union. This would result in information being cluttered and stop it being as easily accessible as desired. It was stated that Students union may receive a lot more of attention if they were merged together due to the student's union being more generalised and appeals to more students.

Q5: then allowed and open discussion to features that the app could include. This resulted in numerous ideas that resulted in requirements. Results could be displayed tough the clubs and societies feature/app perhaps on a recent news section generalised to the clubs and society features. Also mentioned was individual forms/ discussion boards for each club and society. It was suggested that it could be monitored though an administrator role that could be utilized by the club or society president or someone in a similar role. A FRQ could also be present on the individual pages.

Results of interview one: Clubs and Societies:

- Clubs and Societies should have their own section on the app separate from the student union to increase awareness and traffic towards the section as opposed to be merged with the student's union.
- Within the clubs and societies section of the app the individual clubs and societies should have their own pages to allow them a personal and unique way of appealing to students.
- Notification system in place for the clubs and societies feature
- An RSPV system in place for students to respond to the notification
- Ability to sign up to Club and Societies though the app
- Recent news section on the front of the clubs and society pages that could include information that include results.
- Individual discussion boards for each club and society
- FRQ section on each page to display commonly asked questions.
- A notice board for each club.

2.2.3 Interview three conclusion and results:

Interview questions for NCI Lecturer:
MyNCI is an App that will be developed for the students of NCI. The purpose of this Interview is to get the opinion of an NCI Lecturer and how they would feel about the App through a series of confidential questions. The MyNCI app will involve communication between courses, timetables, exam results etc. The interview will help gather requirements for the app

Q1: Would a moderator role for lecturers be a successful feature for the MyNCI app? why?
- No the moderator role would not be a successful feature due to the extra work load put on lecturers, it is also unpredictable, there is no value for the lecturer using the MyNCI App.
- The App itself should be more student based

Q2: Do you think that the MyNCI app should be broken up? i.e. By year groups or by class groups? Why?
- Yes, the App should be broken up for students and based on course specific information and also general information

Q3: Do you think a notification system that reminds students of rescheduled classes/ extra classes would improve attendance to the classes? do you think the same could be applied to reminders for ca's and would it be successful in terms work quality as they are getting reminded in advance?
- Yes, this could be more effective then student receiving emails because a lot of students don't check their student email.
- The notifications can be knocked off but could be useful.
- Maybe a calendar could be used for each class instead of the pdf files used. The notification feature could have default reminder notification

Q4: Do you think having access to student support such as academic help from the MyNCI App would make it more approachable?
- Yes, Support should be represented on the app.
- Support services should use the app presence and could be used to provide information about seminars like on bullying, writing, referencing etc.

Q5: As a lecturer would you like some sort of communication between you and the students as an alternative to email?
- Not necessarily because Moodle updates already get sent out as emails.
- Messages on Moodle should be connected to the App. This could involve the notification system.

Q6: Is there any other features that have not been mentioned above that could be suggested?

- A RAQ with different sections on the App could be used. The information could be provided to students regarding commonly asked questions
- YouTube channels per module to help students.
- E-Learning sites available on the App. App connect to plural site
- The use of single sign on for the app. (Moodle has multiple log ins to different pages)
- Share links with their specific course.
- Exam results available on the App.
- Students can check and change their personal information on the App. (phones numbers, next akin for example)
- The app could have an academic calendar that is easier to find then the current one located on the NCI website.
- Notifications of student achievements (football results, raising money, etc.)
- Only allow NCI students to register for the App.
- Share content on social media via the App.
- Text book exchange, Sell old textbooks via the app.
- Facility to form study groups (class based)
- Book the group room (library group room) or available labs during their free time.

Interview three: conclusion and results:

The interview conducted with an NCI lecturer was very informative and results in a huge amount of requirements for the MyNCI app. The objective of this interview was to get requirements for the MyNCI app though a series of question that were directed towards an NCI lecturer. The perspective of the NCI lecturer was very important as it was crucial to get a variety of viewpoints that were not just from the student's perspective. This interview gave an insight and perceptive of what the NCI lecturer believed was going to add value to the MyNCI app. Having a lecturer as a stakeholder was extremely successful and payed a huge role in securing requirements.

Q1: indicated that a moderator role for lecturers would not be successful. The reason for this not being successful was due to the extra work load that would be put on the lecturer. There is not value to be had for the lecturer and should be more student based.

Q2: resulted in the requirement for the MyNCI app to be broken up in to different groups that are based on course and year group. This feature would allow specific information about their course only be sent to them for example a class being rescheduled would only be sent to that year group and not the whole course.

Q3: questioned whether a notification system could be used to notify students regarding re-scheduled class/ extra class but also used to remind students of upcoming ca's that they had due and possibly give them more notice. This option was seen as a better alternative to contacting/ reminding students as opposed to student email. One of the main issues with the notification system is that if it could be knocked off a lot of students would do so. Also requested was an academic calendar for students in regard to when their ca's are due as an alternative to the pdf. File that is used.

Q4: generated a requirement for a student support feature/page on the app. This feature would include academic help and student assistant fund. The support services should use the app presence s it would allow them to provide more information to students. Information that could be provided include seminars and videos.

Q5: indicated that some sort of commination between lecturer's and students as an alternative to email should not be represented on the MyNCI app. This is due to Moodle already sending out messages and emails when a lecturer has some sort of activities' such as uploading notes etc. As an alternative it is requested that messages and notifications on Moodle are integrated and involve the notification system.

Q6: opened up the floor for suggestions and suggestions that where not already made. This question resulting in multiple requirements. Requested was a RAQ section on the app that could be used to inform students of frequently asked questions. YouTube channels related to the modules to help students. E learning sites that provide course material, the use of single sign on that will remain logged in throughout the app, the ability for a student to share course specific material with other students, exam results being available on the MyNCI app, Students being able to change personal information on the MyNCI App, an academic calendar available, notifications of student achievement, only allowing NCI students to register for the app. The ability to share content from the app via social media, a text book exchange feature to sell old school books, feature to book the college group room (library) and the ability to form study groups with other students.

Requirements from interview three:

- The MyNCI app being broken up in to course and year specific groups.
- A course and year specific notification system that involves alerts for rescheduled lectures and tutorials.
- A notification system for upcoming ca's
- An academic calendar personalised to each student.
- Student support/feature page where information could be displayed regarding academic and financial support.
- The integration of Moodle messages and the MyNCI app
- A RAQ with different sections on the App could be used. The information could be provided to students regarding commonly asked questions
- YouTube channels per module to help students.
- E-Learning sites available on the App. App connect to plural site
- The use of single sign on for the app. (Moodle has multiple log ins to different pages)
- Share links with their specific course.
- Exam results available on the App.
- Students can check and change their personal information on the App. (phones numbers, next akin for example)
- The app could have an academic calendar that is easier to find then the current one located on the NCI website.
- Notifications of student achievements (football results, raising money, etc.)
- Only allow NCI students to register for the App.
- Share content on social media via the App.
- Text book exchange, Sell old textbooks via the app.
- Facility to form study groups (class based)
- Book the group room (library group room) or available labs during their free time.

2.2.4 Interview four conclusion and results

Interview questions for Developer:
MyNCI is an App that will be developed for the students of NCI. The purpose of this Interview is to get the opinion of the NCI students Union and how they would feel about the App through a series of confidential questions. The MyNCI app will involve communication between courses, timetables, exam results etc. The interview will help gather requirements for the app

Q1: Could it be possible if necessary to link the MyNCI App with Moodle, this would involve a feed of Course data (Modules, notes and details regarding the module), How?

- It is possible to link the MyNCI app with Moodle as Moodle is built to be able to talk with other applications. This is due to Moodle offering its services to many Colleges and Universities around the world. The service is made to be adaptable regarding working across different platforms alongside other applications. This can be done with an API if one is made available.

Sub question: Would they be able to upload ca's from the app?

- Again, it is possible to link both services together and this is possible provided access is permitted by the college. However, it's no advised as certain features of Moodle won't be available on the application. Doing so could open opportunities for cheating and plagiarism.

Q2: Would it be visible to add a notification system within the MyNCI app and how would this notification system work? The notification system would include Ca reminders, Applications being reviewed, emails, reminders and upcoming events. How would this be accomplished?

- The MyNCI app will have to be able to talk to Moodle to achieve pulling such data. If granted by the Moodle API, the app could use an internal notification system that reads a user's Moodle feed and notifies them of upcoming CA's and events. The app would then simply display the notifications as push notifications similar to those found on your smart phone.

Sub question: would this notification system be able to be customised according to the students need?

- This is possible. You could allow the user to select what notifications show. This would be done by simply telling your system to make only relevant calls to the Moodle API.
- For example, by default the system will ask the Moodle API for Events and CA dates. Instead, it will only ask for CA dates as requested by the user.

Question 3: Would it be possible to have a link between Facebook and the MyNCI App. This would include sharing Content from the MyNCI app with your personal Facebook?

- This is possible using the Facebook API however, it involves a lot of work and configuration to maintain such a system. It's also not something that will be used as much and it's not at all useful for the user. Furthermore, pulling data from Moodle and outputting it to Facebook using your system can open problems, if the college administration does not approve. Lastly, each user feed on Moodle is unique, regarding the course there in and the CA's they have, whether they uploaded a CA vs another user who has not done so. Giving the user the option to share this could lead to problems and confusion between classmates.

Question 4: If necessary would it be possible to display YouTube videos on the MyNCI app that would allow course specific videos to be accessible on the MyNCI app? How?

- It is possible to pull specific videos on the MyNCI app. You would have to allow the system to identify the course specific videos by using the Moodle API.
- For example, the API will be used to pull only videos from course X.
- The system will make a call to the API to see if there is a video for course X. If there is, it will send back the video provided that its hosted-on YouTube or a YouTube link is provided.

Sub question: If required would it possible to link the summon and exam past papers database to the MyNCI app?

- Yes, it can be done. The database is accessible by an internal service made available by the college. Students can search for past exams as well as books and other resources. If an API is made available, the MyNCI app could be able to search and pull such resources. You would have access to the search function and this would allow the user to submit their search queries through the application.

Question 5: Would it be possible to use a single sign on feature? This meaning that when I log in to the app I am automatically logged in to my student email, summon and My details?

- Such a feature is possible as can already be seen among the services within the college. This is done through a service that links user authentication of apps together. The college already uses such a service known as MyApps, a Microsoft product. If given access to the MyApps service, single sign feature is achievable.

Question 6: Would it be possible to book the group room in the library though the MyNCI app?

- Booking the group room in library could be possible by storing the booking information within a database or using a third-party service that manages events / bookings / timetables.
- When the user books a room, the system will look through the database or third party service to see if the room is booked on the time and date specified. If not booked, it will book the room. If it is booked, the user will receive a message informing them to book at another time or date.

Question 7: What sort of safety percussions can be implemented in to the MyNCI app that ensures that their password and details are safe?

- To ensure a user's password is safe, two steps authentication could be implemented to prevent un-authorised access to a user's account.
- Another safety percussion that could be added is the use of Google's CAPTCHA plugin which will check on verifying if the login was processed by a human or a bot. Bots can be used to enter millions of possible logins information until access to a user's profile is given. Adding the CAPTCHA can prevent this.
- Lastly, a limit can be set on how many times a failed login is entered. Either the user will have to wait for a specified time until trying again or the account can be locked until the user is verified either by an administer or by sending a verification link through the user's account email.

Question 8: Would an Administrator role be possible on MyNCI app?

- Yes, this would be possible by giving specific users differ privileges such as the student union rep being able to have access to change the notice board.
- This feature is very important to keep the MyNCI app relevant and up-to-date

Conclusion of interview 4:

Q1: The first question of the interview with the developer has indicated that it would be possible for having a link between Moodle and the MyNCI app the slink would allow course data to be displayed on the app. The developer has stated that Moodle has been built to talk to other applications as it works with many different colleges. This can be achieved by using an API.

Q2: Indicates that the requirement for a notification system can be achieved again using an API from Moodle that will allow the app to have access to dates such as upcoming CA's and exam dates. The developer also stated that it would be possible for the MyNCI app to have its own personal notification system that users could then alter and edit what notification the user would want to be displayed.

Q3: The requirement for a link between Facebook and the MyNCI app has been described as difficult and may take a lot of work and configuration to maintain on an ongoing basis. The developers stated that pulling data from Moodle and putting it though to Facebook can open up more problems and confusion among class mates.

Q4: the answer to question 4 indicates that it would be possible for the MyNCI app to pull videos from YouTube using an API that will allow the course specific videos to be pulled by YouTube by name and displayed with specific courses. Question 4 also states that it would be possible to use summon on the app and access to the past papers if the college allowed this feature to be accessed within the MyNCI app.

Q5: This question shows that single sign can be achieved though the such of a Microsoft feature that the college already avails of called MyApps

Q6: The developer states that the booking of the group room is achievable on the MyNCI app but it will require a database to store the information that will be relayed back to the Norma Smith Library. Another way of doing this is also using a third party software.

Q7: Provided a lot of useful information to do with security features that could be used to protect MyNCI from attacks. Examples of the security features include CAPTCHA feature to ensure that the user is genuine and not a program trying to crack passwords and gain access. Another features described included a number being put on the number of failed password entrees that can be made.

Q8: This answer specifies that there must be administrator roles for specific users so that information can be updated and post modified. This role will give a specific user specific capabilities on the app that are only applied to the area the user is responsible for.

2.3   Brainstorm:

The Brainstorm that was conducted was a success at it resulted in requirements being gathered from students from other colleges that have the use of a college app in their respective colleges to shed light on some of the features that were successful and features that were unsuccessful. This allowed The NCI students participating to identify and contribute to what they felt were key requirements for the project. There were two separate phases during the brainstorming session the first being the actual brainstorm that allowed the 4 participants to speak openly on what features would be a successful addition to the MyNCI app. Phase two consisted of the individual from each selected college to identify what were the successful and unsuccessful features from their college app experience. This phase is represented as a ''pros'' and ''cons'' list.

The student from Dublin City University:

The student from DCU provided a variety of features that were of value to UCDs college app that included

Pros	
1.	A functional events page that offers dates for different events on the academic calendar, careers events and also lectures
2.	The app also utilized a campus map. This was seen as very beneficial by the student due to the size of the UCD campus as it can be tricky to navigate if you are a new student.
3.	The app allowed you to search summon, although it did redirect you to a web browser it was still seen as benefical.
4.	There was a list of emergency numbers and other notable number available in the app that are ideally placed and easy to find if they were required quickly
Cons	
1.	That the features that were shown on the app the majority of them just redirected you to a web page
2.	There is a lack of content within the pages on the app.
3.	All features are limited to one page, this being the homepage
4.	News section just links to UCD.ie
5.	Very unattractive appearance

The student from Dublin Institute of Technology

The DIT student had some of the same problems that the student from UCD had that being nearly every feature relocated you to the college website. But it was noted that that app had potential:

Pros	
1.	The app had a section for news, email, calendars, library, student's union, maps and a list of contact numbers available
Cons	
1.	Every features relocated you though an in app web browser to the college website
2.	There was no section for clubs and society's
3.	There were no student services

The student from Dublin City University:

The student form DCU had a lot to say about the usefulness of the college app and how well it was put together, there was a strong list of features and pros to the app

Pros	
1.	Phone numbers were available for every department
2.	The student's union page had a lot of regular updates
3.	There was a functioning clubs and society's page
4.	The functioning campus map provided a map for each different campus of DCU
5.	The home page had no scrolling making it a lot clearer and neat
6.	The app provided a list of bus routes on how to get to each campus.
7.	Library search feature on the app.
Cons	
1.	No student support feature
2.	No security stopping you from accessing the app
3.	Some of the app allows you to scroll this causes an issue when scrolling you can end up clicking on pages unintentionally
4.	Separate log ins make the app awkward to use
5.	Can't change personal details on the app
6.	Some connection problems throughout the app particularly on the clubs and societies page

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Results from brainstorm:

The completion of phase one and phase two resulted in the NCI student identifying different features that were considered valuable to the MyNCI app. As seen in the actual brainstorm that has been mapped out the requirnments that have been gathered from the brainstorming session are:

- Exam papers being available on the MyNCI App
- Summon being available on the MyNCI App
- Messaging system
- Students Union page
- Clubs and societies page
- Community forum
- Vouchers and discounts
- Notification system
- Student email access
- Academic support
- Ca results
- Exam results
- The ability to upload ca's from the app
- The library opening times
- Ability to sign up to clubs and societies though the app
- Information for events though a notice board
- Easy to navigate
- Emergency numbers available
- Update your printer credit
- Ability to book the group room
- Ability to order a new student card
- Check computers on campus availability
- See what books you have checked out of the library
- NCI 360 resources.

2.4   MoSCoW Analysis:

Must
FR1:A link between Moodle and the App.
FR2:A student support feature
FR3:A notification system for MyNCI (course specific/c&s,su)
FR4: A calendar feature for upcoming events including clubs and societies, SU and individual calendars.
FR5: MyNCI should be broken up depending on course and year.
FR6: RAQ section on different pages.
NF1: The MyNCI App single sign on.
NF1:Only allow NCI students to access the MyNCI app
FR7:Access to the student email
FR8:Access to exam papers
FR9:Access to summon
FR10:CA/Exam results
NF7:Easy to navigate
FR11:Access to NCI360
FR4: Individual calendar unique to each student.
FR12: Students can view and change personal information on the MyNCI app.
FR13: Each club and society should have their own individual page.
FR38: Clubs and Societies admin role
FR39: Clubs and societies individual page admin
FR40: Students Union administrator
FR41: Library Page administrator
FR42: My Course Administrator

Should
FR14:A clubs and society feature/page independent from the Students union page
FR15:A student union feature/page independent from the Clubs and societies page.
FR16:A library feature/page
FR17:A recent news feature/page
FR18:Comunication boards for year and course specific groups.
FR19:A students union notice board
FR20:SU communication board for students to post query's.
FR21:Ability to sign up for clubs and societies on the app.
FR9:Recent news section on the front of the clubs and societies page.
F13:Indevidual communication boards in the club or society.
FR22:FAQ section on each club
FR3: A course and year specific notification system.
FR23:Intergrated Messages with Moodle.
FR24: YouTube channels/ videos for modules.
FR25: E-learning sites available for students on the app.
FR23:Messaging available on the app
FR26:library opening times.
FR27:emergancy numbers
FR28:Ability to book the library group room
FR29: meet the team feature for the SU page.
FR30: Notice boards for clubs and societies individual clubs

Could
1:A restaurant feature/page
FR31:A discounts/vouchers feature/page
FR32:A link between the vouchers/discounts page and the notification system.
FR36:An RSPV system for upcoming clubs and societies events.
FR37: A notification system feature that includes student achievements.
FR33: Text book exchange system
FR34:Facility to form study groups
FR35: See what books you have checked out of the library.
10: Check computers availability

Wont
1:A campus map for NCI.
2:A blog for the student union
3:Intergreation between the Su page/feature and the Su Facebook page
4: The ability to share links to material between courses
5:The ability to share content from the MyNCI app and social media
6:The ability to top up your printer credit.
7:The ability to upload ca's though the MyNCI app.
8:The ability to order a new student card
9: The ability to book free labs when they are not in use.

The MoSCoW analysis was used to prioritise the requirements that where gathered from the elicitation process that included

- A brainstorm conducted with five students (2: NCI 1: DIT 1: UCD 1: DCU)
- A survey that was conducted among the NCI students
- Interview one which was conducted with a representative of the student's union
- Interview two which was conducted with a representative of the clubs and societies
- Interview three which took place with an NCI lecturer
- Interview four which took place with a developer

The importance of conducting this MoSCoW analysis was to create a clear understanding of how the requirnments ranked that could be understood by all of the stakeholders. The requirnments that have been prioritised and labelled in a table they will be clearly visible in the wireframes and allow a clearer visibility and understanding of where each feature stems from. The requirements in this table have been prioritised according to the importance stated by the stakeholder.

N.B: The requirement number does NOT represent their importance. i.e. all requirements in the 'Must' section carry equal weight.

2.5 Wire Frames set 1:

Page 1: This page represents the log in page for the MyNCI app. The requirnments for this page comes back to requirement NF1 on the MoSCoW analysis and falls under the "must" column.

1: The MyNCI logo will be placed here to give the log in page a unique look and also makes the app an easily identifiable.

2: This box will prompt and allow students to enter their student number

3: This box will prompt and allow students to enter their password. This is the same password used on Moodle.

4. This log in button allows the student top log in and will also be used as a single sign on throughout the MyNCI app. This single sign on function comes from requirement NF1 located in the "must"

My DETAILS 1.	My Course 2.
NCi Students Union 4	NCi cubs and Society 5.
Norma Smith Library 6.	Student Services 7.
Recent News	EXIT MyNci log out.

Page 2: this page represents the page that will appear when first logged in. This page represents the different features/pages that have been identified as requirements during the elicitation process.

1: My details section will be represented on the home screen though a button. This button will lead you directly to the My details page. My details page will be unique to every log in as it will contain personal information. The requirement for this Is requirement FR12 located in the 'Must 'section of the MoSCoW analysis. This requirement was identified in interview 3 question 6.

2: The My Course section will be represented with a button that when clicked will bring the user to their course information. This Information is specific to every log in and contains the students course details. This is requirement FR5 located in the 'Must' section of the MoSCoW analysis.

3: This is where the logo will be represented to make the app attractive and easily identifiable.

4: The NCI student's union page will be represented on the app though a button when clicked will bring you to the student's union feature/page. This is requirement FR15 located in the ''should'' section on the MoSCoW analysis.

My DETAILS 1. 3.	My Course 2.
NCi Students Union 4	NCi Cubs and Society 5.
Norma Smith Library 6.	Student Services 7.
Recent News	EXIt MyNci log out

2
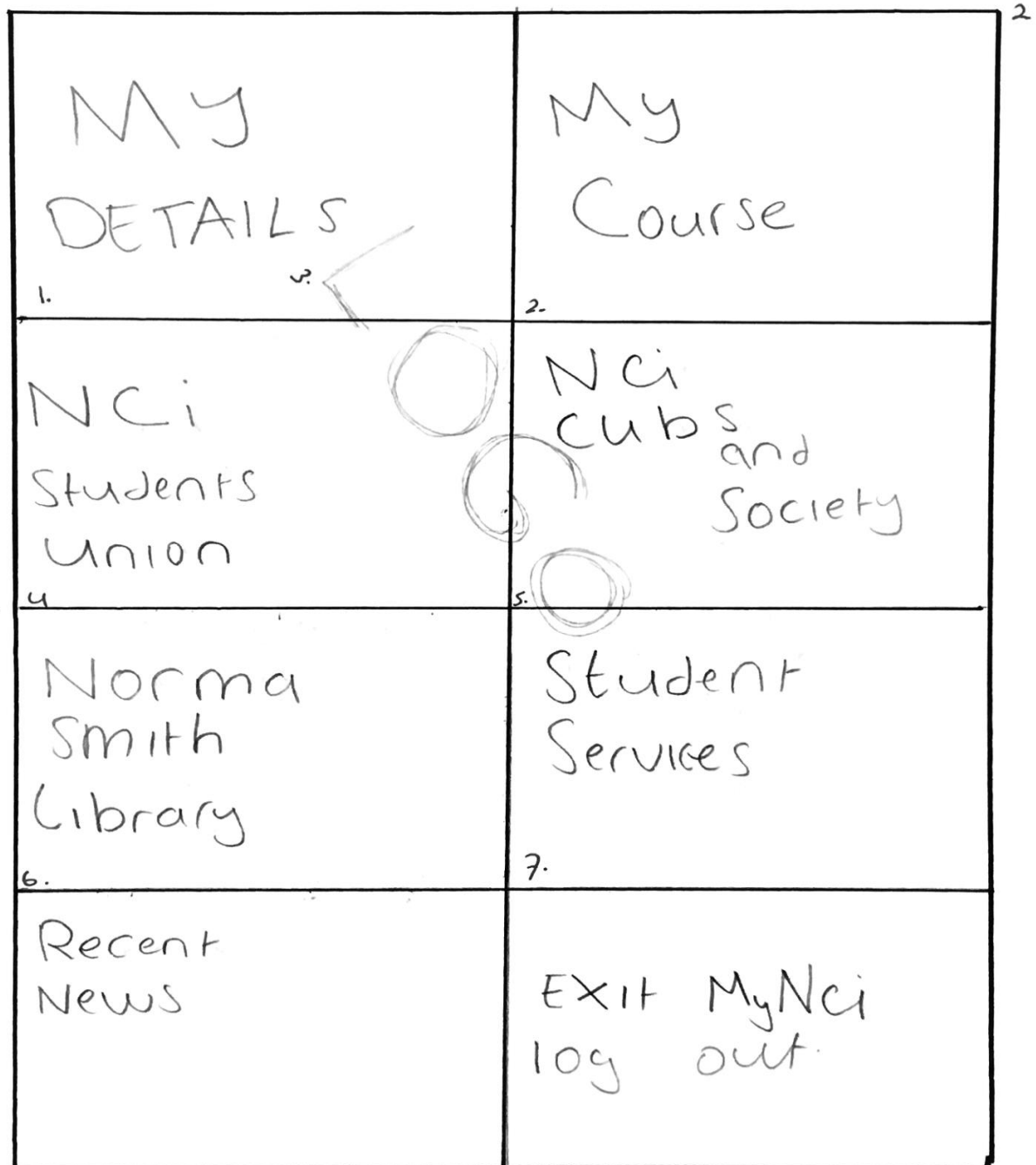
5: The Clubs and Societies page will be represented with a button that when clicked will bring you to the front page of the Clubs and societies page that will then allow you to access their individual features. This is requirement FR14 located in the ''should'' section of the MoSCoW analysis.

6: The Norma Smith Library will be represented on the home screen though a clickable button that will bring you to the Library page/feature. This is requirement FR16 located in the ''should'' section of the MoSCoW analysis.

7: Student services will be represented on the home page with a clickable button that will give the user access to a range of different services provided by the college. This is requirement FR2 located in the 'must' section of the MoSCoW analysis

8: The recent news section is represented by a button that when clicked it will bring you to a feature that displays recent news from different areas of the MyNCI App.

9: the log out button logs the student out returning them to the log in screen.
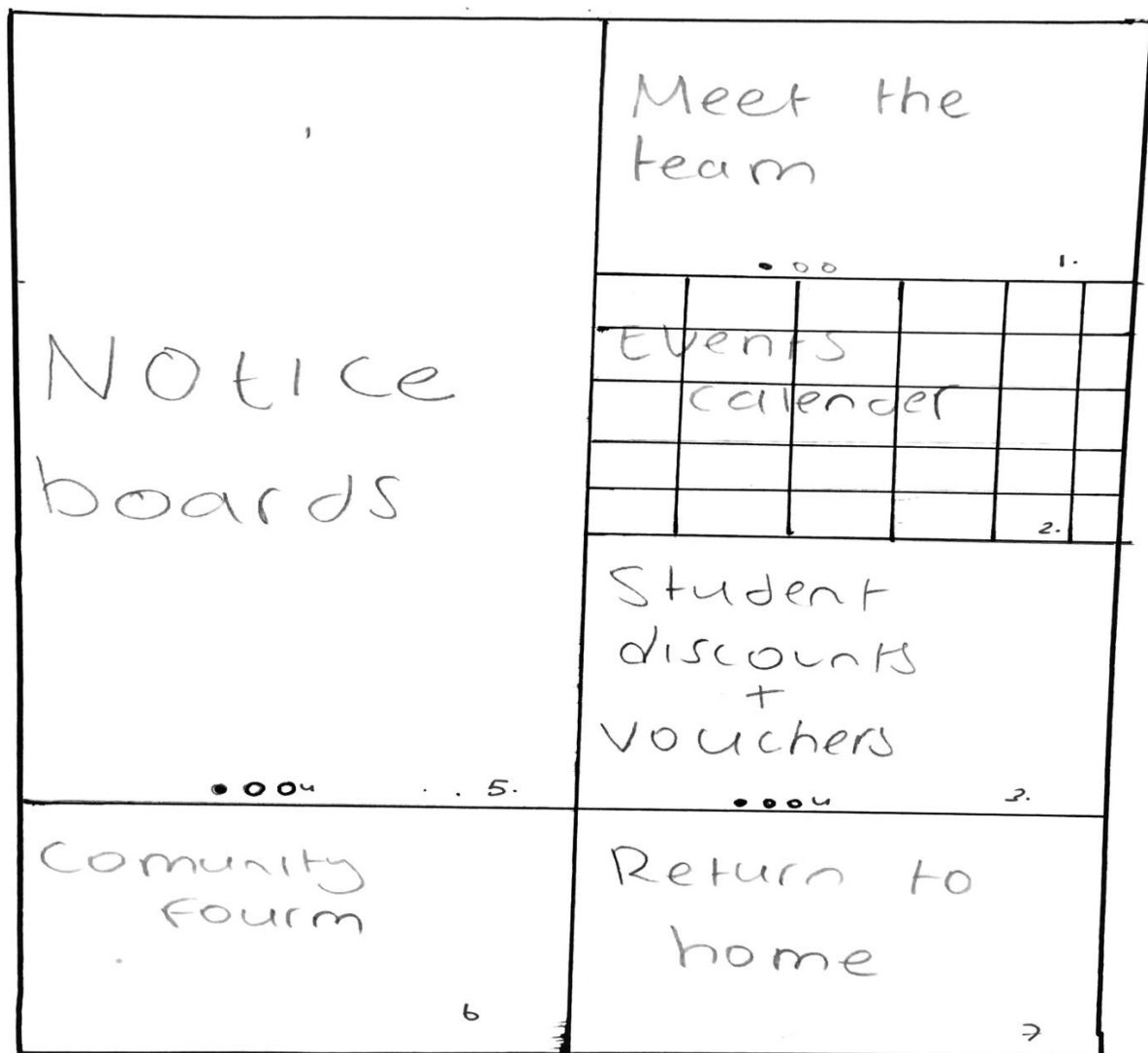
Page 3: This page is the student's union page and is what is displayed when the user clicks the student's union button located on the home page(page2). This page shows requirements gathered from the elicitation techniques

1: Meet the team displays the student's union members and their individual information. This is represented though a slider. This is requirement FR29 located in the ''should'' have section of the MoSCoW analysis.

2. The events calendar will be displayed on this page that shows the upcoming events that relate to the student union. This is requirement FR4 located in the ''must'' section of the MoSCoW analysis.

3: The student discount/voucher feature will be displayed though a slider features similar to meet the team. This is requirement FR31 located in the ''could'' section of the MoSCoW analysis.

4: This indicates that there will be a slide show of different information.

5: The notice board will be used to display information that is preserved as important to the user by the student's union. This is requirement FR19 located in the ''should'' section of the MoSCoW analysis.

6: The community forum is a general purpose communication section geared towards users of the student's union. This is requirement FR20 located in the ''should'' section of the MoSCoW analysis.

7: The return button will bring the user back to the home page.

Recent News

• ⊙⊙

INDevidual Clubs

FAQ

Return to home screen

1

2   3   4
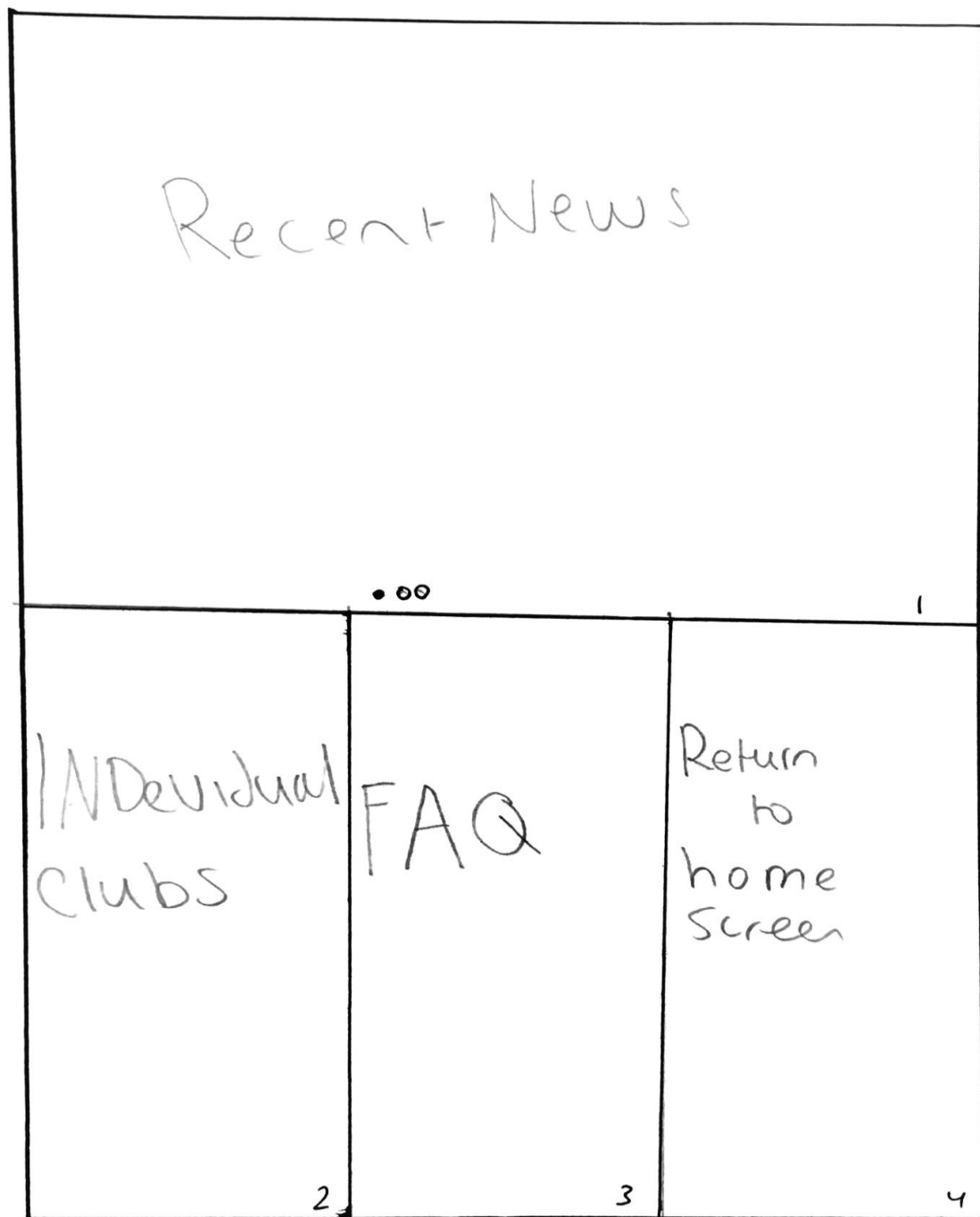
Page 4 is what is shown when the clubs and societies Button is clicked so on the home page. This page displays features that were desired by stakeholders during the elicitation process.

3: The FAQ refers to information that will be readily available regarding the clubs and societies including rules and regulations. This is requirement FR6 located in the 'Must' section of the MoSCoW analysis.

1: The recent news section will show recent going news within each individual clubs. This is requirement FR9 located in the 'should' section of the MoSCoW analysis.

4: The return button returns you to eh home screen. (page 2).

2: The Individual clubs button when clicked will lead you to a list of Individual clubs which can be then views and joined. This is requirement FR13 located in the 'must' section of the MoSCoW analysis

Badminton	Buisness
Basketball	Christian Union
Chess	Comedy
Gaelic Football	Computing
Golf	Dance
Hockey	Darts
Hurling	Fantisy Football
Karting	Fashion
Pool and Snooker	Peer mentoring
Soccer	Reach out
Table Tennis	war games
Tennis	Xbox
Ultimate Frisbee	ART 1.
FAQ 2	3 Return to Prevsou) Screen

Page 5: Page five is what is shown when the individual clubs button is selected by the user on page 4. This page lists the different clubs allowing you to select a view their pages.

3: This button redirects you to the Clubs and Societies home page (page 4)

1: The clubs shown are all selectable and when clicked will lead to their unique page to where the user can sign up for the clubs or society and view their notice board. This is requirement FR13 located in the ''must'' section of the MoSCoW analysis.

2: represents the FAQ questions regarding the clubs and societies that includes information like how to join, start a club and other miscellaneous information that is commonly asked. This is requirement FR6 located in the 'must' section of the MoSCoW analysis.
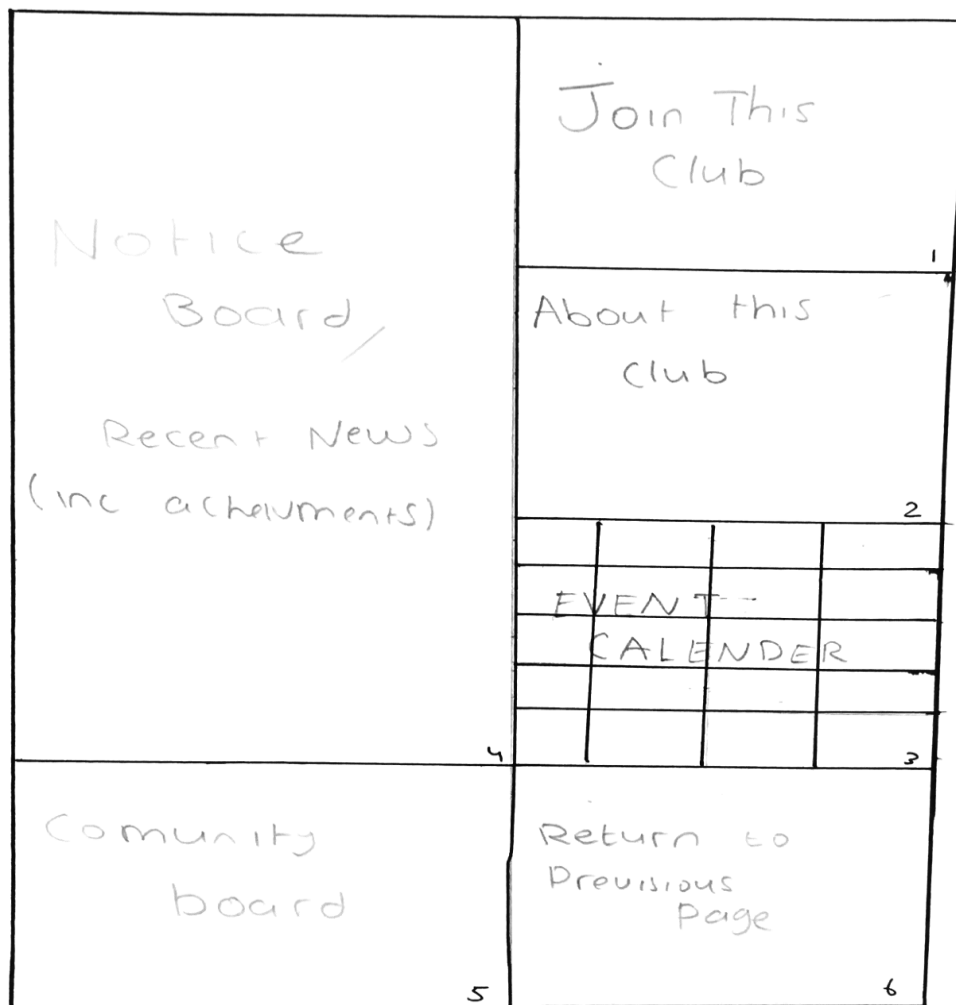
Page 6: Page 6 is an example of an individual club's page. This is what is displayed when a club from section 1 on page is clicked.

1: allows the user to join the club from the app as opposed to the sign up day during fresher weeks. This is requirement FR21 located in the 'should' section of the MoSCoW analysis.

2: The about this clubs gives the user an insight in to the club and provides information that is deemed useful for the user when deciding if this club in right for them.

3: The calendar will show upcoming events that are specific to the club. This is requirement FR4 located in the 'must' section of the MoSCoW analysis.

5: The communication board in club or society based and can be used by member of the club or society to post topics/ queries. This is requirement FR13 located in the ''should'' section of the MoSCoW analysis.

4: the notice board located within each individual club will give updates in regards to event updates past and present. This is requirement FR30 located in the ''should'' section of the MoSCoW analysis.

6: This button will return the user to the previous page of club selection (page 5)
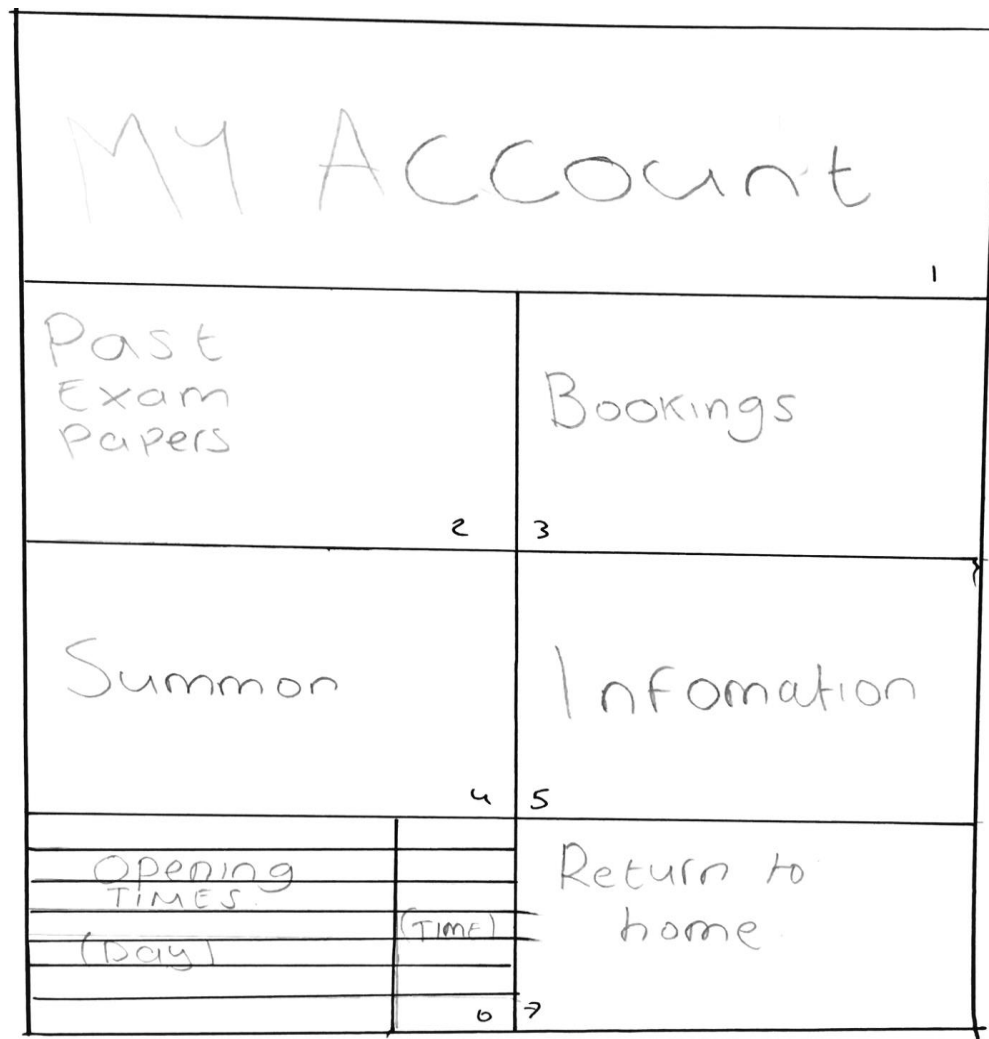
Page 7: Page 7 represents the Norma Smith Library. This page will be displayed when clicking the Norma Smith Library page on the home page (page 2)

5. The information page gives the user information regarding the library. This is requirement FR6 located in the 'must' section of the MoSCoW analysis.

1: This represents the user's library account. This can be used to view information such as the books you have check out of the library. This is requirement FR35 located in the 'could' section of the MoSCoW analysis.

6. This section displays the opening times of the library for each day of the week. This is requirement FR26 located in the ''should'' section of the MoSCoW analysis.

2. The past papers feature will be represented by a button and allows the user to access past exam papers this is requirement FR8 located in the 'must' section of the MoSCoW analysis.

3. The bookings feature allows the student to book and manage their bookings for the group room. This is requirement 19 located in the 'should' section of the MoSCoW analysis

4. The summon feature will give students access to the summon database. This is requirement FR28 located in the 'could' section of the MoSCoW analysis

Academic Support 1	Careers & opertunities Services 2
Councelling Services 3	Class reps 4
Disability Support Services 5	Financial Assistance 6
Library Services 7	Medical Services 8
Peer mentoring 9	Personal development Programe 10
Personal support and guidance 11	Sport and recreation Service 12
Sports Scholarship 13	Return to home 14

Page 9: This page shows different areas of student support. The different areas are represented by individual buttons that when clicked with bring you to the correspondent page with the relevant information regarding the selected area. This is requirement FR2 located in the 'must'' section of the MoSCoW analysis.

13. This button when clicked allows the user to return to the homepage.

1,2,3,4,5,6,7,8,9,10,11,12,13. Are all under requirement FR2 located in the 'Must' section of the MoSCoW analysis.

MyNCI
Students
    Union
Recent
      News

1

MyNCI
Clubs
    and
    Society
    Recent
        News

2

Norma
Smith
    Recent
        News

3

Return to
Home

4
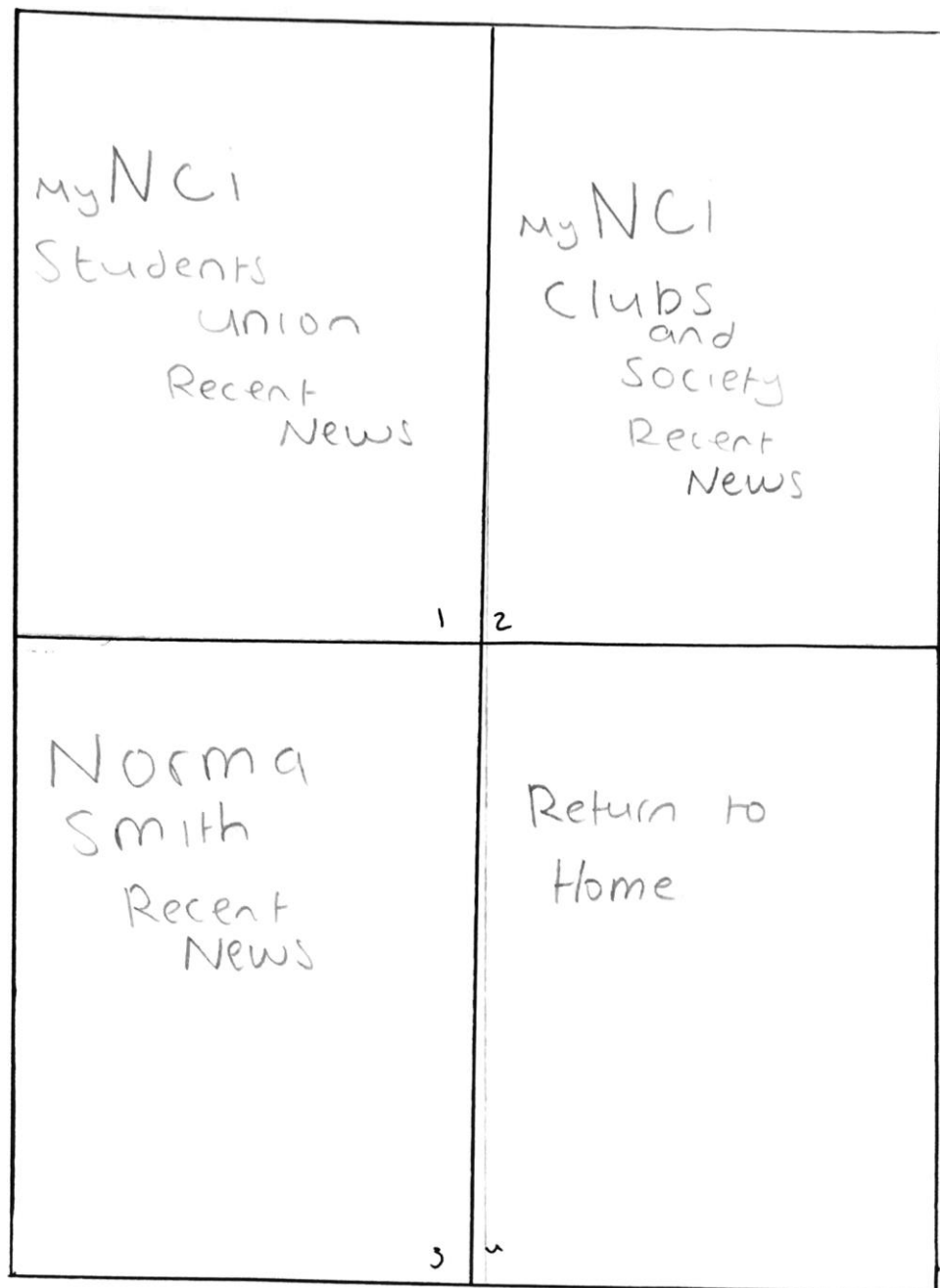
Page 9: This page is an over view of all the recent news throughout the MyNCI app in one place. This allows the user to catch up on all the latest updates without having to go in to individual pages.

3: This button will be representative of the recent news that is relevant to the Library section of the MyNCI app. This is requirement FR17 located in the 'should' section of the MoSCoW analysis.

1: This button will feature all of the recent news that is relevant to the Students Union section of the app. This is requirement FR17 located in the 'should' section of the MoSCoW analysis.

4: This button when clicked will redirect the user to the homepage.

2: This button will feature all of the recent news that is relevant to the Clubs and Societies section of the app. This is requirement FR17 located in the 'should' section of the MoSCoW analysis.

1.

MYNCI
EVENT REMINDER··"_____
_____ ''
Slide for more
———>

2.

MYNCI :
EVENT REMINDER:"_____
_____ ''

RSPV | VIEW | Clear

———>
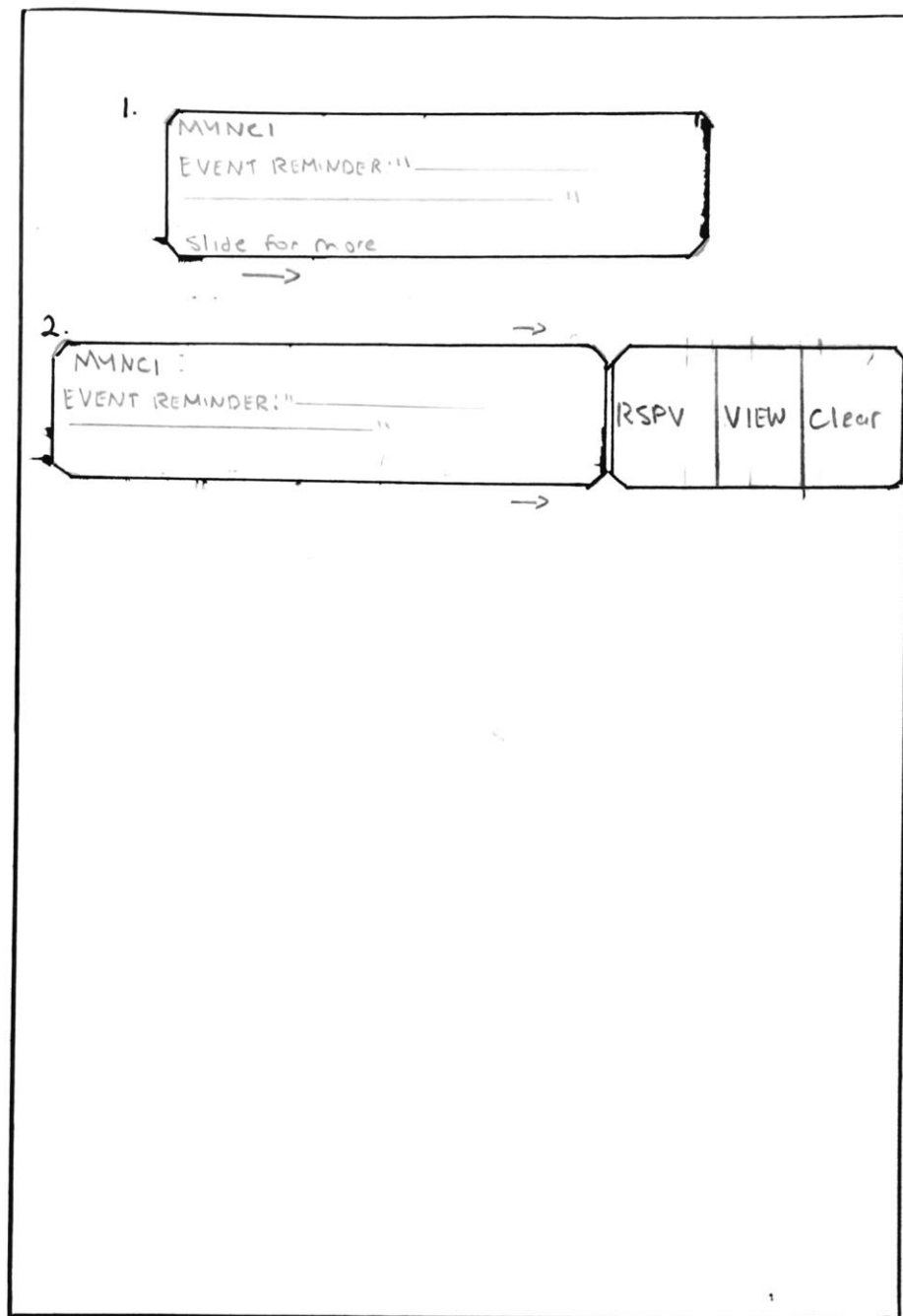
Notification 1: This notification is an example of an event reminder for a user that has signed up to a specific club or society. This is requirement FR3 located in the 'must' section of the MoSCoW analysis.

1: This will be the notification that will appear on the user's phone. This will contain details about the event such as the name and date/time. This will prompt the user to slide for more.

2: When the user slides for more it will allow them to either RSPV to the event (requirement FR36 located in the 'could' section), Allow them to view the event within the app and also clear the notification from their phone.

1A

Would you like to Join the " " Club/Society ?

| Yes | NO |

2:

Thank you " " for Joining the " " club/society would you like to receive notifications

| Yes | no |

3.

NEWS

Comunity board's updates

Upcoming Events

| Save + Exit |

1B.

Would you like to Join the " " Club /Society?

| Yes | NO |

Notification 2: This notification is an example of what is displayed when selected the button (1 on page 6) to join a club or society within the MyNCI app.

1A: after the button has been clicked by the user the user will be asked ''would you like to join this club/society''.

2: If the user selects ''yes'' they will then be asked if they would like to receive notifications from the club/society.

3: if the user selects ''yes' 'they will be promoted to select which notifications they would like to receive this include news, community board updates and upcoming events. If the user selected ''no'' they will be returned to the club/society page but will not receive notifications.

1B: if a user has accidentally or has chained their mind about the club/society they can select no. This will not sign them up for the club/society and will return them to the club's page.

My Modules | Course Comunication Board
1 | 2
E-learning Sites / youtube Videos | My Study groups
3 | 4
Course Spesific Calender | Return to Home
5 | 6
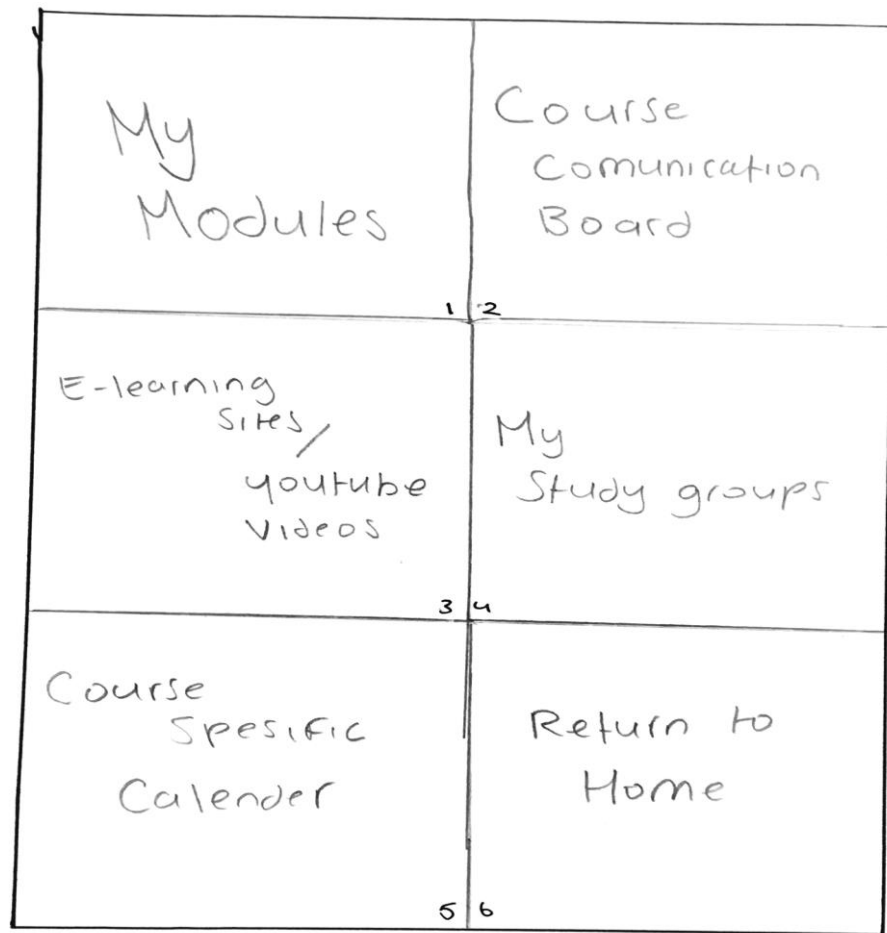
Page 10: This is the page that is displayed when the user clicks my course button located on the homepage. This page will contain user specific information about their course. This is requirement FR5 Located in the 'must' section of the MoSCoW analysis.

1: My modules section will display the modules that the user takes. This will be updated quarterly and yearly as the student's modules change. This is requirement FR5 located in the 'must' section of the MoSCoW analysis

2: The course communication board will allow students to post topics or queries about modules/ their course. This is requirement FR5 located in the 'should' section of the MoSCoW analysis.

3: This feature will allow students to access martial from e-learning sites and YouTube regarding their course work. This is requirement FR25 located in the 'should' section of the MoSCoW analysis.

4: This feature will allow students to create/ join a study group that is course/module specific. This is requirement FR34 located in the 'could' section of the MoSCoW analysis.

5: The course specific calendar will display the dates of upcoming CA's that is unique to the user. This is course and module specific. This is requirement FR4 located in the 'Must' section of the MoSCoW analysis.

MY information | My messages
1 | 2

My grades/Exam results | Notification centre
3 | 4

Student Email | My clubs & Society
5 | 6

My Personal calender | Comunity board Posts
7 | 8

Student support los | Return to Home
9 | 10
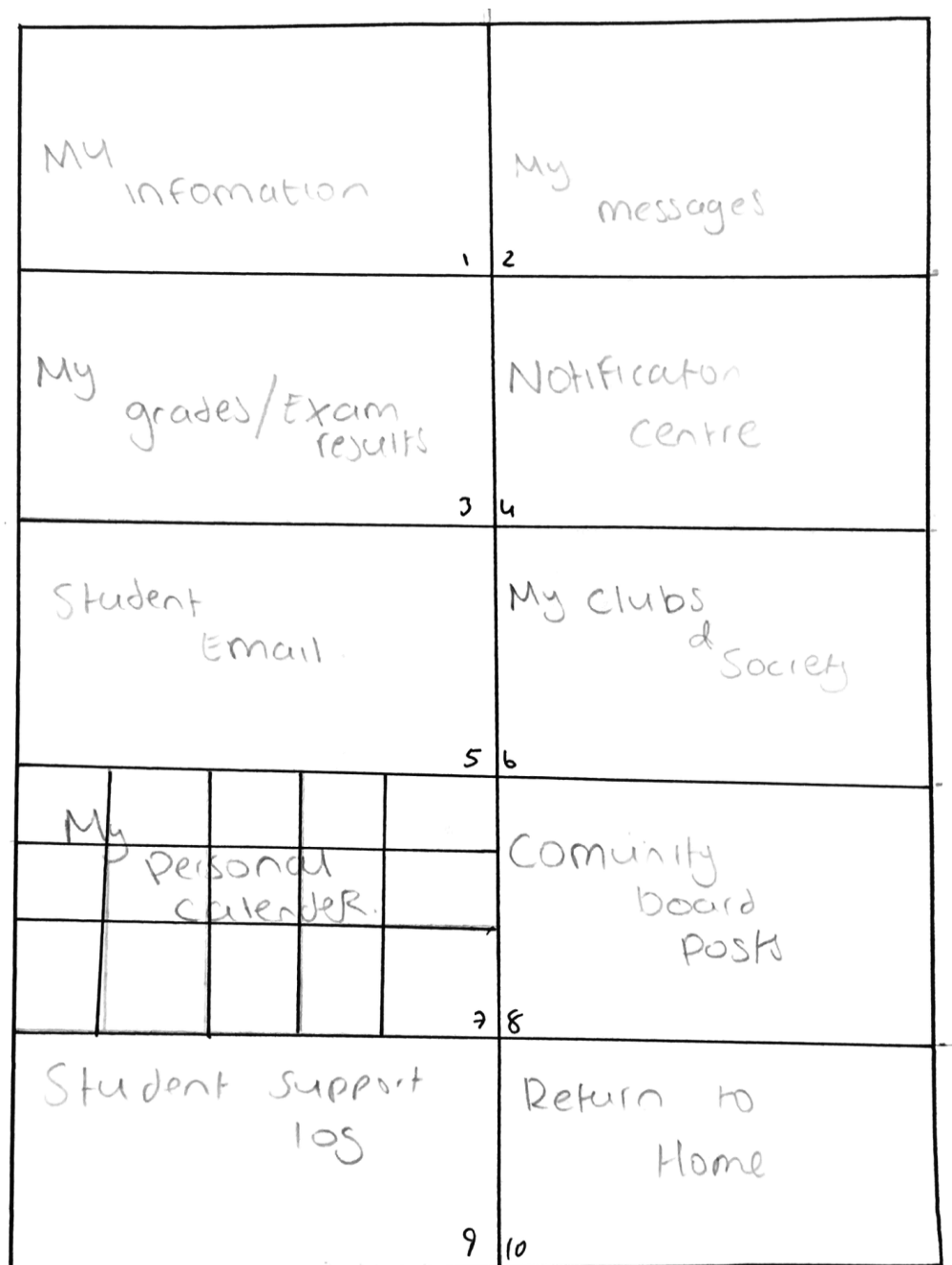
Page 11: This page shows the page accessed when the user accesses my details page. From here the user can access their personal features that include messages and student email. This feature will be unique to each student.

3: The My Grade/ Exam results gives the user access to their results. This is requirement FR10 located in the 'must' section of the MoSCoW analysis.

1: My information feature will allow a student to view and change their personal information via the MyNCI App. This is requirement FR12 located in the 'must' section of the MoSCoW analysis.

4: The Notification centre allows students to edit what type of notifications they would like to receive. This is requirement 3 located in the 'must' section of the MoSCoW analysis.

2: The My Messages feature will allow students to send and receive messages in the MyNCI App but also this will be integrated with messages from Moodle. This is requirement FR23 located in the 'should' section of the MoSCoW analysis.

MY information
1

My messages
2

My grades/Exam results
3

Notification centre
4

Student Email
5

My clubs & Society
6

My Personal calender
7

Comunity board Posts
8

Student support log
9

Return to Home
10
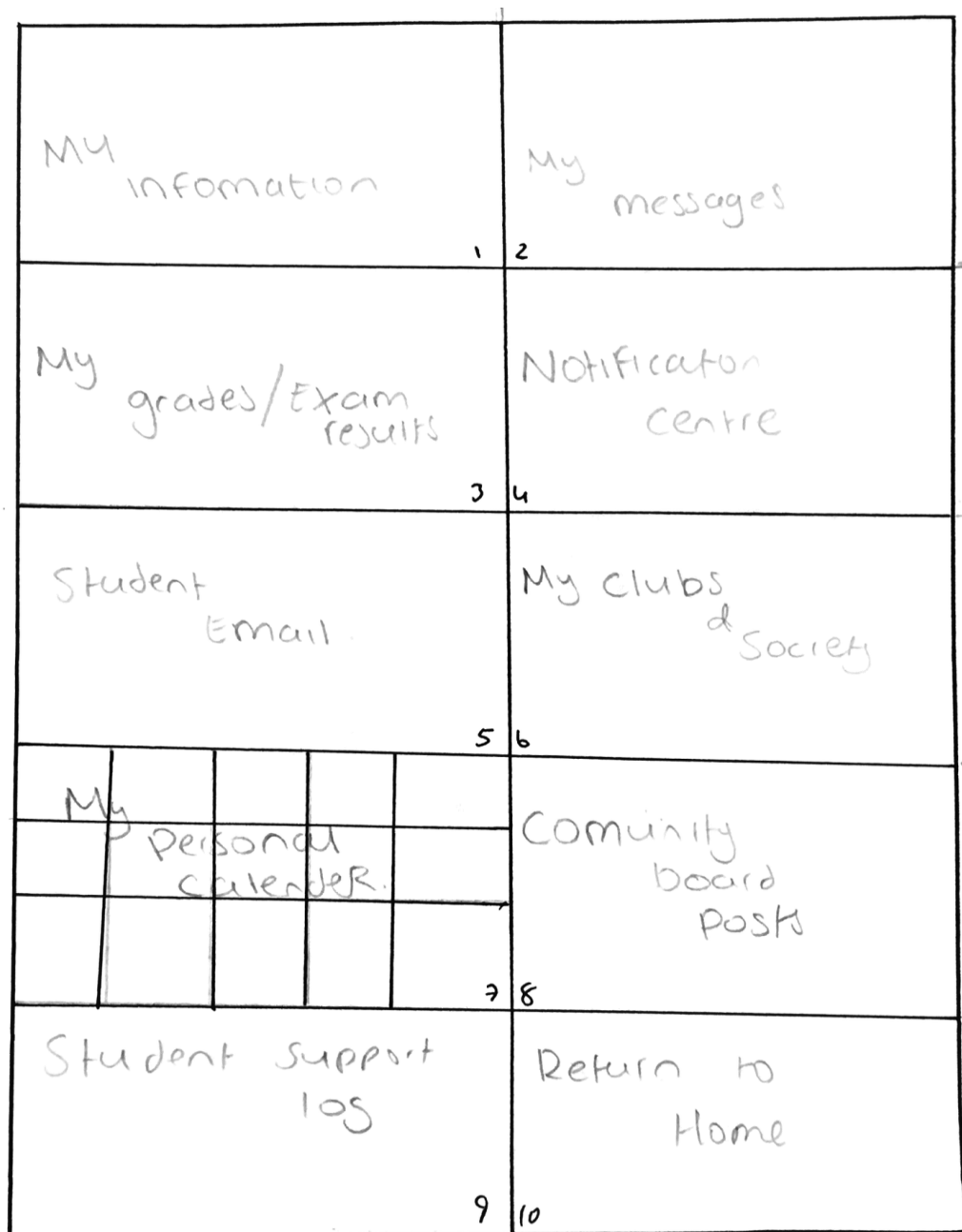
5: This feature will allow students to access their student email while on the app. This is requirement FR7 located in the 'must' section of the MoSCoW analysis

8: The community board posts feature allows the user to view the posts they have made in different community boards that include the student's union, clubs and societies and the course communication boards.

6: This feature will allow students to manage their clubs and societies that they have joined.

9: This allows the user to view their student support submissions and their status.

7: The personalised calendar shows upcoming caps and personal events that are unique to the user. This is requirement FR4 located in the 'must' section of the MoSCoW analysis.

10: This button when clicked returns the user to the home page.

2.6 Requirements workshop: conducted after wire frames set one:

The requirnments workshop took place after the first set of wireframes were completed. The goal of the requirements workshop was to get feedback on the layout of the MyNCI App. The wireframes were created based on the requirements gathered during the elicitation techniques that were prioritised using the MoSCoW analysis technique. The wireframes depicted the main pages of the app where the majority of the requirement that fell in to the 'must' and 'should' have sections of the MoSCoW analysis were located. The wire frames also included a sample of the notification system and how it would look graphically. The stakeholders that participated in the workshop include two NCI student, The NCI student union representative that was interviewed and the NCI clubs and society representative interviewed.

The stakeholders were very pleased with the look of the app and noted the use of clickable 'boxes' as opposed to a scrolling feature. Also complemented was the easy to navigate look which was also a 'must' have requirement. The log in page was seen as very benefcal to keeping the MyNCI app strictly for students. My details page was seen as a positive as it allowed a student to keep track of their community board posts, clubs and societies and also personal messages. The use of the notification centre to enable and disable certain notifications was complemented. The Students unions representative was satisfied by what would be shown within the student's union feature page and agreed along with the two NCI students that the page would be both benefcal and informative to current and new NCI students. The clubs and societies representative also stated that he was satisfied with wireframes as they indicated that each club would have their own unique page that would help them Appeal to different students. Both representative expressed satisfaction that the student's union and the clubs and societies had their own standalone pages. The two NCI students displayed interest in the student support page stating that they were not aware of the various different amount of support areas available to students.

There were criticisms made regarding the first set of wireframes that the stakeholders would like to see addressed in the second set of wireframes and they included

1. The logo on the homepage being changed to each section having their own unique logo as opposed to one large background one. The reason for this being it will make it easier to navigate.
2. On the homepage the recent news section be changed to a 'slideshow' like feature as opposed to a whole page.
3. It was recommended that on the wireframe for student's union page that the 'return to home' button be changed to 'return to homepage' this was also the case with the library page.
4. On the clubs and society page the FAQ section on page 5 be changed to only have a FAQ on each individual club or society page as the FAQ on page 5 is not of any value.
5. It was also stated that on the clubs and society page 5 that the individual boxes would be too small to click and may lead to user frustration.
6. It was recommended that the ''my information'' tab on page 11 be changed to ''my details''

7. Also stated was that it would be benefical to change the 'notification centre' on page 11 to ''my setting'' allowing other options to be added in to the feature. One feature recommended was log in setting.
8. The library page ''information page'' be renamed to ''FAQ''.

2.7 Wire Frames set 2: Digital

Meteor

DJ Society

Xbox Society

FAQ

Return to Previous Page

Meteor

Notice Board

Join This Club

About This Club

◀			April 24, 2017			▶
Su	Mo	Tu	We	Th	Fr	Ss
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

○ ◉ ○ ○

Example Club
community forum

Return to Previous Page

Meteor   21:45   89%

My Account

Exam Papers

BOOKINGS

Summon

FAQ

Library Opening Times	

Return To Home Page

Meteor ✉ 21:45 89%

Academic Support

Careers & Opportunities

Councelling services

Class Rep

Disability Support

Financial Support

Library Services

Medical Services

Peer Mentoring

Personal Development

Personal Support

Sport And Recreation

Sports Scholarship

Return To Home Page

Meteor ✉   21:45   👤🔇⁕📶 89%🔋

My Details

My Messages

My Grades

MySettings

Student Email

My Clubs and Societies

◄			April 22, 2012			►
Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

My Community Fourm Posts

My Student Support Log

Return To Home Page

Meteor   21:45   89%

My Module

comunication board

E-Learning

My Study Groups

April 22, 2012						
Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

Return To Home Page

2.8 UML Use Case Diagram:
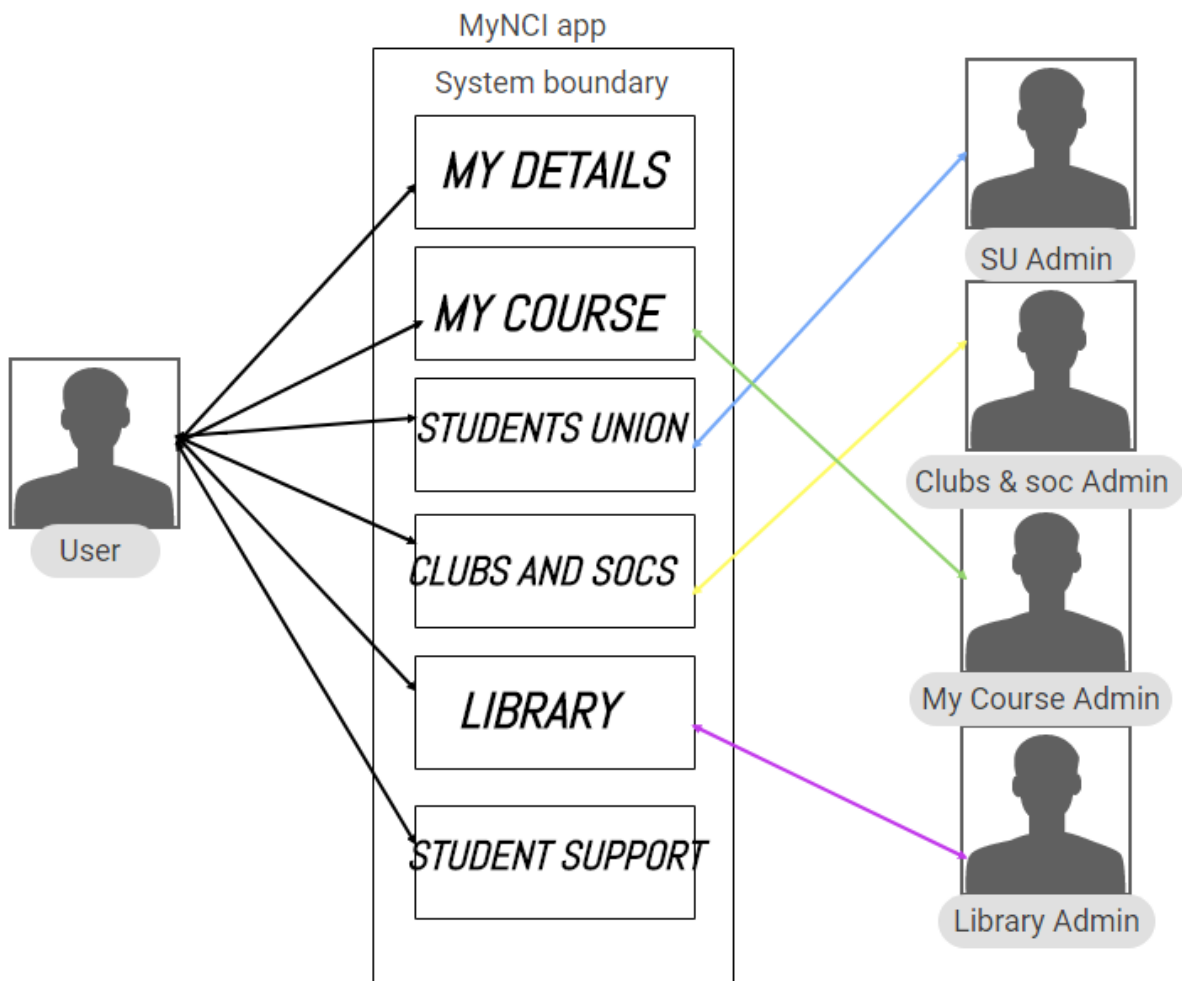
The use case diagram is used to represent the interaction between the stakeholders and the MyNCI app. The stakeholders are represented outside of MyNCI system boundary. Inside the boundary represents the different pages that exist within the MyNCI student app. The different colour lines that link the stakeholder to the specific page represent their administration permissions. The user has access to each area of the app. This includes communication boards with in the student's union, clubs and societies, library, student support, My course and My details. The four admin roles have only access to the specific areas where their permission lie. If the administrator is also a student user, they will have the same access as a user along with their specific permissions that will be identified at the log in with their student number.

3.IEEE Requirement Specification

3.1Introduction

Purpose:

The purpose of the IEEE requirement specification document is to clearly identify and list the key functional and non-functional requirements that are required to ensure that the MyNCI App is developed correctly and that the finished product meets the stakeholders needs and expectations for this reason the finished IEEE document will be analysed by all stakeholders to ensure all changes that are necessary are made and expectations are met prior to development.

Scope:

NCI has never had a functional app like most other colleges. NCI have been allowing students to access their time tables, exams results, modules and notes though Moodle. Moodle has been very well received by most students but a demand for an App has not been addressed correctly. The demand for the app has emerged due to the amount of time and effort exerted when navigating through numerous pages and logins to retrieve exam results, timetables, emails and other features accessible on Moodle. The current app in regards to the college is the NCISU App but lacks functionality along with connectivity problems which have come to light in the review section of the google play store deeming it a 1-star app. This has increased pressure for the development for an app.

The MyNCI app will give students an easy to navigate app for IOS and Android that will allow students to access the Students Union page, Clubs and Societies page, Library privileges while giving the students a unique experience by being able to join clubs and societies on the app, change personal details on the app, access and submit student support tickets and queries while being able to manage their posts and queries though their own individual my details page. The MyNCI app will allow students to keep up to date with their own personalised calendar allowing the student to prepare for upcoming exams and ca's while also managing their personal life which includes upcoming events with in their selected clubs and societies.

MyNCI will promote self-organisation for students while providing students with a medium to interact and create new friendships with likeminded people. MyNCI aims to create a warm college experience that helps balance social life and college life.

3.2 Functional Requirements

3.2.1   Class one: User

Functional requirement 1	
Identification Code:	FR1
Title:	link between MyNCI app and Moodle.
Description:	The MyNCI app must be able to draw information from Moodle to gain information such as the users personal information their specific course information and exam results.
Location:	This is located throughout the MyNCI app.
Priority:	Must have.

Functional requirement 2	
Identification Code:	FR2
Title:	Student support feature.
Description:	The student support feature gives the student access to multiple support services provided by NCI. This section allows students to submit queries/ tickets to the appropriate support feature and queries/tickets can be managed within the My Details section of the MyNCI app
Location:	The student support page is located on the home page of the MyNCI app and can be managed in the My Details section of the app.
Priority:	Must Have

Functional requirement 3	
Identification Code:	FR3
Title:	MyNCI notification system
Description:	The notification system will be used in many different areas of the app that include clubs and societies (specific to the users selected clubs), the students union page and course specific updates (time table updates, rescheduled class's, support classes and upcoming ca's) .
Location:	Throughout the MyNCI app.
Priority:	Must have.

Functional requirement 4	
Identification Code:	FR4
Title:	Calendar features
Description:	The calendar feature will be specific to different pages and will contain different information. The calendar will allow students to remain up to date in different areas.
Location:	There are a number of different calendars located throughout the MyNCI app: 1. Students union page, 2. Individual Club & Society pages, 3. My Course page and 4. My Details page all containing different dates. The calendar located in My detail should be customisable to the user as only they can view this calendar.
Priority:	Must have

Functional requirement 5

Identification Code:	FR5
Title:	MyNCI should be broken up by course.
Description:	This will mean when a user logs in that they can only access their own modules an course material.
Location:	My course page
Priority:	Must have,

Functional requirement 6

Identification Code:	FR6
Title:	FAQ sections throughout the MyNCI app.
Description:	The FAQ sections will attempt to solve any student quires that may occur. This will be commonly asked questions that are typically asked and will provide the curious user with an answer.
Location:	There are FAQ sections located 1.The clubs and societies selection page and 2. The Norma Smith Library page.
Priority:	Must have

Functional requirement 7

Identification Code:	FR7
Title:	Student Email
Description:	The MyNCI app will have access to student email. This will be the users own personal outlook page.(i.e. x1234567@student.ncirl.ie)
Location:	My details page
Priority:	Must have

Functional requirement 8

Identification Code:	FR8
Title:	Exam papers
Description:	MyNCI will have access to exam papers. This is possible though the link being made with Moodle.
Location:	The library page
Priority:	Must Have

Functional requirement 9

Identification Code:	FR9
Title:	Summon
Description:	MyNCI will have access to Summon. This will allow students to search Summon from within the app.
Location:	The library page.
Priority:	Must have

Functional requirement 10

Identification Code:	FR10
Title:	Ca/Exam results
Description:	MyNCI should display the users exam and ca results within the app.
Location:	My Details page
Priority:	Must have

Functional requirement 11

Identification Code:	FR11
Title:	NCI 360 access
Description:	The user can access NCI 360 material within the MyNCI app.
Location:	Student Support page, My Course page
Priority:	Must have

Functional requirement 12

Identification Code:	FR12
Title:	Edit personal information
Description:	The user can view and edit their personal information though the MyNCI app. This information will include contact information, next akin and address.
Location:	My Details page
Priority:	Must have

Functional requirement 13

Identification Code:	FR13
Title:	Each club and society will have individual pages & community board
Description:	When the user access the clubs and society page they will be able to select an individual club. This will also contain their individual communication board
Location:	Clubs and Societies page.
Priority:	Must have

Functional requirement 14

Identification Code:	FR14
Title:	Clubs and Societies page
Description:	This page will allow users to browse all of the available clubs and societies in NCI. The page will also have other features such as a notice board, individual clubs and society pages, community boards.
Location:	Home page
Priority:	Should have.

Functional requirement 15

Identification Code:	FR15
Title:	Students union page
Description:	The students union page will allow students to view the students union notice board, community board and view members of the SU team.
Location:	Home page
Priority:	Should have.

Functional requirement 16

Identification Code:	FR16
Title:	Library page
Description:	The library page will represent the Norma Smith Library located on the NCI campus. From this page students will have access to past exam papers, summon and FAQ regarding the library.
Location:	Home Page
Priority:	Should have.

Functional requirement 17

Identification Code:	FR17
Title:	Recent News sections
Description:	The recent news section will update users with information regarding the college. i.e. results of the football team, Upcoming student's union event. But individual pages will contain more specific news relevant to that section
Location:	Home page, clubs and society home page.
Priority:	Should have.

Functional requirement 18

Identification Code:	FR18
Title:	Communication board that is course and year specific.
Description:	This communication board allows students from the same course to communicate. This will only be accessible by a student of the course.
Location:	My course
Priority:	Should have

Functional requirement 19

Identification Code:	FR19
Title:	Students union notice board

Description:	The student union page will have a notice board that will display information that is relevant to the students union
Location:	Students Union page
Priority:	Should have

Functional requirement 20

Identification Code:	FR20
Title:	Students union community board
Description:	The students union communication board will allow students (not course specific) to post queries/ topics relevant to the students union
Location:	The Students Union page
Priority:	Should have.

Functional requirement 21

Identification Code:	FR21
Title:	Sign up to clubs and societies on the MyNCI app.
Description:	This feature will allow students to select an individual clubs and sign up though the app.
Location:	Clubs and Societies.
Priority:	Should have

Functional requirement 22

Identification Code:	FR22
Title:	FAQ section for each club
Description:	This FAQ section will give the user information regarding the individual club. This will be styles as 'about this club'
Location:	Clubs and Societies
Priority:	Should have.

Functional requirement 23

Identification Code:	FR23
Title:	Integrated messages with Moodle
Description:	This feature will allow students to show message from within the app but also their messages from Moodle
Location:	My Details
Priority:	Should have

Functional requirement 24

Identification Code:	FR24
Title:	YouTube channels/ video access.
Description:	This features course specific and allows videos to be shared and views that will be benefical to the users learnings
Location:	My Course
Priority:	Should have

Functional requirement 25

Identification Code:	FR25
Title:	E-learning websites
Description:	This feature is similar to the YouTube channel/ video sharing. This will allow users to share/view benefical material from E-Learning site. i.e. W3schools
Location:	My Course
Priority:	Should have

Functional requirement 26

Identification Code:	FR26
Title:	Library opening times
Description:	This feature will show what times the library is open at on a weekly basis.
Location:	Library page
Priority:	Should have

Functional requirement 27

Identification Code:	FR27
Title:	Phone numbers
Description:	Emergency numbers should be available on the MyNCI app that include security, It support and register office.
Location:	My Details
Priority:	Should have

Functional requirement 28

Identification Code:	FR28
Title:	Book the group room
Description:	This feature will allow the student to book the group room for specific times and dates.
Location:	The Library page
Priority:	Should have

Functional requirement 29

Identification Code:	FR29
Title:	Meet the team page for the students union
Description:	This will introduce the students to the members of the students union i.e. the students union president.
Location:	Students unions page
Priority:	Should have.

Functional requirement 30	
Identification Code:	FR30
Title:	Notice board for Clubs and Societies
Description:	The notice board for the main clubs and society page and also the individual page will display information that is first of all for the main clubs and society page relevant to all users but the individual page will display information only specific to their own members.
Location:	Clubs and Societies page
Priority:	Must have

Functional requirement 31	
Identification Code:	FR31
Title:	Students discounts / vouchers
Description:	The students discounts/ vouchers page will be used to display relevant discounts for students.
Location:	Students union page
Priority:	Could have

Functional requirement 32	
Identification Code:	FR32
Title:	Students discounts/ vouchers link with the notification system.
Description:	This will be accessible though the My Settings feature located in the My Details page. This will allow students to enable or disable receiving the notifications of new discounts/vouchers
Location:	Notification centre located in My Details
Priority:	Could have

Functional requirement 33	
Identification Code:	FR33
Title:	Text book exchange
Description:	This feature of the app will allow students to sell old text books that are not needed anymore. This will be done though the communication board located in My Course as this feature will be course specific
Location:	My Course
Priority:	Could have.

Functional requirement 34

Identification Code:	FR34
Title:	Form study groups
Description:	This feature of the app will allow students to form study groups within their course.
Location:	My Course
Priority:	Could have.

Functional requirement 35

Identification Code:	FR35
Title:	Books you have checked out of the Library
Description:	This feature will allow students to view which books they have checked out of the library this includes when they were checked out and when they are due back.
Location:	Library
Priority:	Could have

Functional requirement 36

Identification Code:	FR36
Title:	RSPV system for upcoming clubs and societies events
Description:	This system will be integrated with the notification system allowing students to specify if they will attend the upcoming event
Location:	Notification centre
Priority:	Could have

Functional requirement 37

Identification Code:	FR37
Title:	Student achievement notification
Description:	This feature to the notification system will recognise student achievement and can be disabled and enabled in the notification centre located in the My Setting section of the My Details page
Location:	My details
Priority:	Could have

3.2.2   Class two: Admin

Functional requirement 38	
Identification Code:	FR38
Title:	Clubs and Societies head administrator
Page permissions:	Strictly Clubs and Societies main page
Description:	This role sees the clubs and societies administrator change the notice board with new content for users to see. This role also sees the admin add new individual clubs when they are formed.
Outcome:	This will allow the admin to change content as he sees fit. This provides students with up to date news and post.

Functional requirement 39	
Identification Code:	FR39
Title:	Clubs and Societies individual clubs administrator
Page permissions:	Strictly Individual club or society that they are responsible for
Description:	As there are many individual clubs within the MyNCI app it is crucial that there is an administrator for each group. They will be responsible for moderating community board post and also updating the notice board for their club and upcoming events management.
Outcome:	This allows each club to be monitored properly and provide up to date news and changes about the club. This will keep club and society members up to date on upcoming events.

Functional requirement 40	
Identification Code:	FR40
Title:	Students Union administrator
Page permissions:	Strictly Students Union page
Description:	This administrator will be responsible for updating the notice board, monitoring the community board posts and updating upcoming events.
Outcome:	Users will be kept informed of upcoming events that are taking place along with a safe and friendly community board that is being monitored correctly

Functional requirement 41	
Identification Code:	FR41
Title:	Library page administrator
Page permissions:	Strictly Library page
Description:	This administrator role involves updating and continuous assessment that all function are working correctly this includes summon, group room booking system and updating library opening times during times of change i.e. Easter time.
Outcome:	With the constant monitoring the user will receive an always functioning service and up to date opening and closing times.

Functional requirement 42	
Identification Code:	FR42
Title:	My Course Administrator
Page permissions:	Strictly My Course
Description:	This role will be filled by a class rep to ensure that all course information is correct and that all member of the course are official students and not from other courses. The administrator will be responsible for monitoring the communication board, study group feature and ensuring all modules are available.
Outcome:	Users will have the correct information available and will have their course material quick and efficiently without any mix ups that may occur.

3.3 Non-functional requirements:

3.3.1   User class one: Security requirements

Non-Functional requirement 1	
Identification Code:	NF1
Title:	Login
Description:	Only NCI students can access the app due to the course information and My Details section being student specific. This prevents outside sources gaining sensitive information. The use of Captcha can be used here to ensure that automated programs are not entering various combinations to gain access to the MyNCI app. This should allow a student to stay logged in to each features.

Non-Functional requirement 2	
Identification Code:	NF2
Title:	Administrator access
Description:	The administrators access abilities will be tied to their student number. As a result, only the student can access the administrator permissions. The permissions that the user has will be strictly restricted to this area. This is known as Authorization and Access Control

Non-Functional requirement 3	
Identification Code:	NF3
Title:	Buffer Overloads
Description:	Buffer overload attacks consist of large amount of data being sent that the app is not used to causing it to act differently to how it normally would be allowing the attacker to make the application submissive to their demands. By putting limits on the input field length this can be controlled i.e. only allowing the user input field to support 9 characters to support the student number.

Non-Functional requirement 4	
Identification Code:	NF4
Title:	Encryption of valuable data
Description:	Encrypting valuable data such as students personal information assures that all information is securely stored.

3.3.2   User class two: Performance requirements

Non-Functional requirement 5	
Identification Code:	NF5
Title:	Group Room booking
Description:	Once the user selects their time and day for their booking the confirmation should appear within 10 seconds. This booking should then be accessible from the my account feature located in the Library page.

Non-Functional requirement 6	
Identification Code:	NF6
Title:	Log in credentials
Description:	When I potential user attempts to log in they should be notified within 15 seconds if their log in was successful or un-successful. There are two outcomes from this process. A) the user successfully logs in and is redirected to the home page B) They are prompted to try log in again if the student number and password do not match

Non-Functional requirement 7	
Identification Code:	NF7
Title:	Easy to navigate
Description:	The MyNCI must be easy to navigate for the user. This includes easy to read buttons and easy to navigate pages. The MyNCI wireframes show an easy to navigate app that does not use scrolling or menus.

Non-Functional requirement 8	
Identification Code:	NF8
Title:	Joining a club or society
Description:	When a user selected the button to join a club or society the user will be prompted with the confirmation menu within 10 seconds of the initial click. When the user has joined the club or society the user would then be able to manage their clubs and societies from their My Details page.

Non-Functional requirement 9	
Identification Code:	NF9
Title:	Administrator log in
Description:	Once a user with administrator permissions logs in they should be able to make changes to their specific page(s) without any delay. After a change has been made the page should reload and the update applied within 30 seconds.

Non-Functional requirement 10	
Identification Code:	NF10
Title:	Community board posts
Description:	Once a user submits their post the post should be available to view by all other students within 30 seconds. After the post is uploaded it must be available for moderation by the user from the My Details section. Any user with administrator permissions to the specific board must get a notification indicating that a post has been made. If the post is unrelated content is must be able to be deleted immediately.

Non-Functional requirement 11	
Identification Code:	NF11
Title:	Return to homepage/ return to previous page
Description:	When the user selects the return to home/ previous page button they should be redirected within 10 seconds of clicking the button.

Non-Functional requirement 12	
Identification Code:	NF12
Title:	Log out
Description:	When a student logs out of the MyNCI app the app should close the app within 10 seconds of the student clicking the button.

Non-Functional requirement 12	
Identification Code:	NF12
Title:	Page loading times
Description:	Every page on the MyNCI app should load between 10-15 seconds after the user has selected the page.

3.3.3   User class three: Availability requirements:

Non-Functional requirement 13	
Identification Code:	NF13
Title:	MyNCI available 24/7
Description:	It is crucial that the MyNCI student app is available at all times for users to access.

Non-Functional requirement 14	
Identification Code:	NF14
Title:	Admin log in
Description:	The administrator log in must be accessible at all times to make updates to their applicable pages to ensure students are always up to date with the latest news and information.

Non-Functional requirement 15	
Identification Code:	NF15
Title:	Student support
Description:	Student support features must be available 24/4 for students. This element is crucial for the MyNCI app.

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N.B: The accessed date states 06/05/17 due to having all references saved in a separate word document.

5 Appendix

5.1 Project Proposal:

5.1.1 Project objectives

There are a number of objectives for my requirements document for the NCI student app. While completing my document I hope to

- Analysis other apps from other colleges In Ireland
- I plan to gather information from my stake holders though surveys, Interviews brainstorming techniques.
- The target of my information gathering is to find out what the stakeholders rank the most important features and what they would like the app to include.
- One of the biggest objectives of the NCI Student App is to enable students who are entering the college for the first time to settle in and adjust to life in NCI more smoothly.
- The NCI Student App will allow students to communicate with their class mates.
- One of my objectives is to form a prototype of how the app will look using wire frames
- I will meet with my project supervisor on a regular basis
- The final product will be a final detailed requirements specification document that will be used to develop an NCI college app

Over the course of my information gathering I am sure my objectives will have changed and when I am done all of my gathering there will be new objective that will be addressed. I plan on utilizing viewpoints from my stakeholders. My stakeholders in this project are the product owner, the business analyst, the student body, Clubs and society's, the student union and anyone who may have an effect on the App that have not been identified at this point. Not only will my information gathering provide me with different aspects of the app it will give me an insight in to how the design and the navigation of the app will work. This will then be translated to a visual representation though wire frame diagrams.

I will follow the grading rubric very closely to make sure all of the relevant information is present during my mid-point and final presentation.

The final objective of the whole project is to bring all of the information that a student needs to a simple and easy to navigate Application such as timetables, notice boards, communication features, Student Information, Exam and CA results, Module descriptors, Clubs and Society's and project due dates. This App will be exclusively for students of NCI campus. These are just a few ideas of what may be displayed on the NCI App but the list will be discussed and finalized with the stakeholders. As well as current students I would like the app to make the transition to 3rd level education easier for new students.

I will also delegate my time for this project effectively around my other subjects and exams. By using time management techniques, I will avoid penalties in both my project and other assignments.

5.1.2 Background

The App will be for National College of Ireland located in IFSC in Dublin. Their current App is only directed towards the student Union and currently does not connect properly. The Idea for my project came when I was talking to my brother who studies in trinity and he showed me their student app called 'Trinity My Day' From that app they could access a lot of different features that included timetables, Notice boards and announcements. This made me curious as to why there was not one for NCI and when I did a quick check of the app store and google play I came across the NCISU app and when I downloaded it I realized it did not work correctly and was having connectivity problems.

After a short conversation with my brother and talking about the benefits that an app like this can bring to a college I put it to the back of my mind and when fourth year came around and it was time to pitch my idea for the requirements document project I was having a lot of trouble thinking and accepting a project. I then arraigned to meet with Eugene O Laughlin the course director for guidance. After we had discussed all of the possible ideas we both agreed it would be a good idea to use the college App for my requirements document as we both agreed the app would be beneficial for the college, particularly the students.

Also I feel like the App would be very useful for first time students of NCI particularly the students who are entering 3rd level education straight from their leaving cert. This was my case when becoming a student in NCI in 2012. I found it very hard to adjust at the start I had meetings with dare/hear schemes, Induction and then not having labs the first week I found it hard to manage and confusing. I really feel like the NCI App would really benefit a lot of people if it was done correctly. I read an article on the Irish times that stated Higher education officials are concerned at the high dropout rate and students not progressing past the first year in math related and IT courses which in NCI is relative to the majority of the courses. This included 1 in 6 not progressing to the second year between 2012-2014 they claim this has attributed to the kills shortages in the information and the computer technology sector. Could having an App for the college stop this problem effecting our college? I certainly think it could help.

The app will also help increase communication not only from student to student but also college to student. At times though out my college life I found my student email to be cluttered with emails and I am not proud to say but the majority of them went un-read. I am not the only one who has done this and defiantly not the last. Another thing that seems to get mixed up and add to the confusion is managing deadlines for different modules. This attributes to late submissions and rushed assignments resulting in some students receiving penalties. An app could also help manage these date by having them all on the same notice board as opposed to being on the individual Moodle pages. I am only one student out of over a thousand in this college and I understand that this app is not built around me or for me.

It is my plan to gather information and write the requirements for the students want. I Also want to know how secondary school students feel about an app that will help them transition better by having all of this information available to them. I would also like to interview students from other college who have an app for their college and ask them how they feel about the app and if it helped them manage and stay on top of their classes, timetables, assignments, projects and if it increased student to student communication and college to college communication.

Walking around the college there are a number of notice boards the notice boards encountered most are in each lift lobby. I don't think I have ever looked at one poster on them until yesterday and that was for the pool society. I think that an App would get the idea of clubs and societies across a lot

better. During the fresher week they have an open day where you can sign up for these clubs and society's and then they seem to just disappear and there's no real presence in the college from them. An app could allow students who have changed their mind or were absent when the sign up day was held to view and sign up for the clubs and societies whenever they want. This would defiantly be beneficial for the clubs and societies and also the students. Another factor that drives me towards writing the requirements for the app is allowing the class to know when a lecture is cancelled or rescheduled. I know normally and email is sent but in my personal experiences I have always been too late to see the email and only when I am in the actual class. This Is the case for a lot of students if the app had a notice board that relayed when the class was cancelled or rescheduled and then sent a notification to the students who it effected. As I mentioned above over the course of my information gathering phase my objectives and goals may vary.

5.1.3 Technical Approach:

My approach to the requirements document for NCI App will be heavily guided by the results I will get from the information gathering process. This information will be collected though my various different stakeholders. My research phase of the project will be mainly directed towards other college apps. I plan to look at colleges not only in Ireland but also in the UK and USA. Researching these apps will allow me to have an insight in to how their Apps run what they view as the most important features and what details and layout they have used in their Apps.

Other research will involve interviewing college students throughout the college on what they think are the most important elements and features for the app. I plan on interviewing students from other colleges where these apps exist and what their opinions are. One of the main areas I would like to focus on is on first year students and how they fell about the app along with 6th year students who are thinking about going on to 3rd level education and how they think having all the information in one place will benefit them and help them adjust to college.

There are a number of different sources of literature I plan on reviewing for my project one of them being BABOK v3. BABOK will allow me to understand and deliver business value and create better outcomes. BABOK will also help me understand and tend to my stakeholders more effectively.

I also plan on using a number of different sources to help me in the field of requirements gathering. This is allowing me to understand that the project is not all about me and just because I am a student does not mean I know what all of the students in the college want because are opinions are different. Enabling me to form a clear scope that will gain clarity if there is any doubt among stakeholders.

Using wireframe to construct how the app will look after coding using programs such as ''Moqups''. This will be used as a visual representation of the project during midpoint presentation.

5.1.4 Special Resources Required.

The special resources that I require to complete my project are

    A. A drop box account
    B. Wire Frame construction tools
    C. Access to a variety of books such as BABOK v3
    D. The IEEE guide for effective requirements gathering
    E. The IEEE requirements document template

5.1.5 Technical Details

I will be using programs such as Moqups.com to develop my wireframes. This allows me more flexibility towards the way I want it done and the different customization features.

5.1.6 Evaluation

Now that I have a full understanding of my project objectives I will use a variety of elicitation techniques to gain the data from my stakeholders. This will involve the techniques I have mentioned above in detail. I have mentioned my objectives above and as time and the project progresses I am sure some of them will change and I will be able to facilitate the change in objective and their importance to my requirements document. All of these techniques will allow me to gather mass amounts of information crucial to me final project.

The wire frame for the mid-point presentation will contain features that will be determined on my finding from my information gathering process. When the wire frame is done I will have to show my stake holders to see what they think of the layout of the app.

The improvements to both my App and my wireframes will be added and edited up until the final submission date to ensure the best possible finished outcome.

6   Reflective Diary's:

Student name: Daire Byrne

Programme: BSc in Technology Management

6.1 September

This journal I will be writing and updating on a monthly basis as part of my final year project. I plan to keep this in my own words and as truthfully as possible. The first heading is

Achievements: So far the idea of the project was to get are idea nailed down and have it ready to pitch to our Lecturers/supervisor in a hope of getting the go ahead. This took place in a dragon's den type scenario and involved presenting are idea to the three dragons and I call them dragons because they grilled my idea. I pitched my idea to them of my betting website that took bitcoin as payment. They told me that it would have been to technical to attempt. I am very great full for the feedback I got back from them as they have saved me a lot of headaches and an inevitable car crash of a project. So at the moment as I write this journal I am trying to think of an idea for another project I have a few other ideas floating around and I look forward to meeting with either Ron or Eugene early next week to discuss these ideas and hopefully get my idea approved and ready to go as things stand I am hoping to keep in the same area of gambling as I am interested in this area.

Reflection: Looking back on where I am at this point 3 weeks in to the semester I feel I should have been more prepared for the project pitch and had more answers for them. I underestimated the pitch assuming I would get the go ahead. I am defiantly feeling the pressure of thinking and finalising my idea for my next meeting with Ron or Eugene but I am defiantly not discouraged.

Intended Changes: Next time we meet as in me and the Diary for The end of October I will have my idea and I will have started this mountain of a project but I am motivated and encouraged by the challenges that stand in my way at present.

6.2 October:

This journal I will be writing and updating on a monthly basis as part of my final year project. I plan to keep this in my own words and as truthfully as possible. The first heading is

Achievements: The month has been a very busy month and a lot has changed. Last month my project idea was the Bitcoin bulldog the bitcoin betting idea that got refused. I am very grateful for this as it saved me a lot of hassle. I said I was going to look for an idea that was still in the area of gambling but my plan has since changed over the space of the last 3 to 4 weeks I have had various meetings with Eugene and as of last week I actually found out he is my project supervisor and I am very pleased with this as he has already guided me and helped me pick my new idea. My new idea was developed with his help and is an App for NCI. The app will be for students and is similar to other colleges such as DIT. DCU, UCD and Trinity's mobile apps that allow students to access features quickly on the same platform. I have already submitted my project proposal and am in the middle of getting my first deliverable done.

Reflection: this month I feel a lot better about the project and now that my idea is set in stone I have an idea of the time scale of my activity's that I will doing including my elicitation techniques over the coming months. I am very happy I chose to seek guidance from Eugene as this has gave me good indications of where to start and ideas for the coming weeks. Intended Changes: I hope to become more productive and have a decent chunk of my survey and interview questions ready to be used following approval from my project supervisor.

6.3 November:

Achievements: this month again has been a very busy month for me in regards to college work. I can defiantly feel the difference between 3rd year and 4th year already. We have a lot of CA's and assignments due and I can't help feel a bit pushed for time. At the very start of December, we have 3 assignments due on the same date. So far I have begun prioritising them and have started to tackle them. In regards to my project I have uploaded the second upload and have identified stakeholders and I have drafted up a survey. The first draft of the survey has been analysed by Eugene and needs some changes but I am defiantly happy he reviewed and told me to reference the 'likeard' stale.

Reflection: Looking back on where I was a month ago when writing the reflective journal, I am making progression and looking forward to putting my midpoint presentation together and hopefully I can answer all the questions I am asked. I am not nervous but I do feel a little anxious about it considering the last time I was in a room presenting the project it was my bitcoin idea. I hope they are happy with the progression I am making in the project and give back both negative and positive feedback that will help in the long run. I am working harder now under the time constraint for the upload for the 2nd Sunday in December there was a death in the family and now I am making up for a bit of lost time.

Intended changes: I plan on reviewing the feedback I received from Eugene from my survey and fixing the final survey pending another review. I also hope to have some interview questions reviewed and finalised before my presentation. The next time I will be writing will be a lot closer to the Christmas holidays and hopefully I will have constructive feedback in regards to my project.

6.4 December:

Achievements: Completed my presentation and had sample questions to show Eugene before Christmas that got me going on my way to gathering requirement.

Reflection: The presentation went better than expected and Eugene and Joe seemed happy enough with the progress that was made with the project to date. They noted that there will be an increase in tempo and work load in year two in regards to the project but this is because we will only have two modules next semester. I noted that the college president will have no huge influence on my project and it must be changed from my power influence matrix. I have been advised to take a break from my project to focus on upcoming exams.

Intended changes: I plan to change my power influence matrix to indicate the change in the influence that the college president will have on my project. I plan to take a break and continue in late January after my exams.

6.5 January:

Achievements: Completed my first semester exams

Reflection: this month has been a productive month for me in terms of exam prep and completion but not so much in terms of project work. I have just begun to finish my survey questions which have to be accepted by Eugene before I conduct my survey.

Intended changes: I plan on finishing my final draft for my survey and also distribute and receive my results by the end of February.

6.6 February:

Achievements: Conducted my survey and analysed my results

Reflection: This month was productive as I conducted my surveys this included on the NCI campus and also though online mediums including social media and tough Moodle. I did get a lot of responses that did result in a lot of requirements being gathered. It was harder than I realised to get people to actually do my survey. A lot of people when approached where reluctant to do complete it but after a cool 3 hours of approaching people in the NCI campus canteen I had about 30 hand done surveys that I myself had to put in to google forms.

Intended changes: I intend to extract the full list of requirements form my survey and also start to finalise my interview questions to be approved by Eugene.

6.7 March:

Achievement: This month was very productive day for me as I got my survey rests analysed, got my interview questions approved and conducted my interviews. I conducted three interviews in the month of march and got them wrote up in to my word document the three interviews were conducted with the student's union representative, the clubs and society's representative and the NCI lecturer

Reflection: I am very pleased with the progress made this month and will focus on my ca's and exams that will take place in the middle of April.

Intended changes: I intend to analyse the results from all of my elicitation techniques and form a list of requirements to conduct a MoSCoW analyses before starting my wireframes.

6.8 April:

Achievement: this month was heavily focused on exams but I did manage to get my MoSCoW done and my requirements prioritised this allowed me to start doing my first set of wireframes to show during the requirements workshop. I consulted Eugene before starting my wireframes. The requirements workshop showed where changes could be made. The changes were recommended by the stakeholders and were a guiding force to how the wireframes would be done the second time around.

Reflection: This month although heavily focused on the exams still I was able to get a good bit of my project done in terms of the design of the wireframes and then the changes from the second set of wireframes.

Intended changes: I plan to change my wireframes for the second draft to suit the stakeholder's needs.

6.9 May:

Achievement: This month was solely spent finishing project work and preparing my document

Reflection: this month was spent finishing the second set of wireframes, the use case diagram and preparing the document along with doing the poster for the show case. I met Eugene to show him my heading to make sure that they were ok and also I asked him questions regarding the IEEE document.

Intended changes: just to finish editing my project and get it printed and bound.

Gant Chart: