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myHIM

Him Barbershop Mobile Application

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Declaration Cover Sheet for Project Submission

SECTION 1 *Student to complete*

Name: **Dylan Mc Keown**	
Student ID: **X14540643**	
Supervisor: **Mr Ron Elliot**	

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 assessment is entirely my own work.

Signature: Dylan Mc Keown. Date: 13th May 2018

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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 college for a specified time,
- expelling a student from college,
- prohibiting a student from sitting any examination or assessment.,
- the imposition of a fine and
- the requirement that a student to attend additional or other lectures or courses or undertake additional academic work.

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1. Executive Summary:

This project idea was selected based on a request from the owner of Him Barbershop. After having several meetings and discussions we came to the verdict that a mobile application was needed to improve the business in various aspects besides profit. The current Him Barbershop website did not provide any real benefit to its users other than the fact it was visually appealing. I decided to accept this project as I am current customer as well as the fact it satisfies a real business need and meets the requirements for my final year project.

The project involved using numerous elicitation techniques to help formulate a detailed Requirements Specification document for the Him Barbershop Mobile Application. The following techniques were utilised; survey, brainstorm, four interviews, prototype, interface analysis and a requirements workshop. All information/details/requirements gathered from these techniques were documented and analysed. The results gathered from the requirements elicitation were then used to formulate a high detailed IEEE Document for the new Him Barbershop Mobile Application. The document contains details of both functional and non-functional requirements of the Him Barbershop Mobile Application.

2. Requirements Elicitation & Analysis Planning

2.1 Introduction

This project involves gathering and verifying requirements for the new Him Barbershop mobile application. The current Him Barbershop website is very basic and lacks any real features beneficial to its users. In recent months my client has had numerous inquiries from customers about booking appointments. This is in fact is where the idea was brought to light after several meetings myself and my client formulated the idea for a new Him Barbershop mobile application including an appointment booking system as a main requirement. Once all requirements have been gathered and finalised they will be listed in a comprehensive requirements specification document.

The preliminary task of gathering requirements for the new mobile application will be carried out using numerous elicitation techniques. A brainstorming session with several key stakeholders will be conducted. The main objective of this session will be to gather some initial thoughts on the applications design, layout and features. Surveys will also be distributed to stakeholders to help confirm existing features and highlight new ones. Interviews will also be conducted to gather thoughts from key stakeholders such as current and former customers.

Interface analysis will be conducted to assess possible interfaces type which will be related with barbershops application. A requirements workshop will be conducted to prioritise requirements. Several carefully chosen stakeholders will attend the workshop which will be scheduled on a specific day within the barbershop. The Moscow Analysis will also be utilised in the prioritisation of all requirements gathered.

2.2 Business Need:

The business owner believes there is a need for a mobile application to add on from the current basic website available. He believes in order for the expansion and growth of his business this mobile application will provide him with the platform to move on to the next level. He feels as if his lack of technological infrastructure is now restricting both himself and his business from moving on to the next level. He believes that this proposed mobile application will allow him help satisfy and maintain his current customers as well as attract potential new customers. Due to the large increase in customers within the barbershop there is now a large demand for a mobile application with various functions such as an online booking system. The business need was originally introduced by myself and several current customers. We vocalised our opinion to the business owner/my client. We as a group felt as if the barbershop needed a mobile application to manage its large clientele.   Some current and former customers also outlined how the business was falling behind its competitors in relation to an online presence other than social media pages.

The application which was both myself and the project owner's idea will have some basic functioning requirements which we both want to see on the application. These will include;

- Appointment booking system.
- Card Payment
- Simple but effective GUI.
- Price List

In order to gain a deep understanding of the business need and what is expected/required from stakeholders for such an application requirements elicitation will be carried out using various elicitation techniques. Following the requirements elicitation, I will use all results to assist in the development of the mobile application.

2.3 Business Case:

The owner of Him Barbershop has outlined a budget for implementing this new mobile application, which is being developed for both profit and non-profit related reasons. This idea formulated after several discussions with myself and my client and therefore we have decided to go into partnership to develop this proposed idea. My client is an enthusiastic entrepreneur who believes the development of this application will further enhance his successful barbershop. Both myself and my client have sat down and discussed the budget for the project and we have both agreed to go ahead with requirements elicitation to gather feedback, information, thoughts and suggestions related to the project.

Once a profile is registered on the mobile application this will provide the user with exclusive member capabilities such as booking future appointments online through the mobile application as well as ordering/reserving hair products and entering several yearly competitions. Guests who have not registered will not be able to avail of these member privileges but can still browse application content such as price list, location, opening hours and gallery.

Like every project there are risks involved. Some risks which have being discussed between myself and my client are financial/budget risks and implementation risks. In terms of financial/budget risks this would entail going beyond the allocated budget for the mobile application. The implementation risks would include the selection of an appropriate developer. The selection of a developer is vital to the overall success of the project, therefore the developer must be a suitable fit.

2.4 Stakeholders:

Please find below a list of all identified stakeholders as well as a supporting Importance/influence matrix.

- A) Business Analyst
- B) Customers
- C) Staff
- D) Project Sponsor
- E) Developer
- F) Supervisor

2.5 Importance/Influence Matrix

High

	Business Owner
	Developer
	Business Analyst
	Customers
	Staff
Supervisor	

Low **Influence** **High**
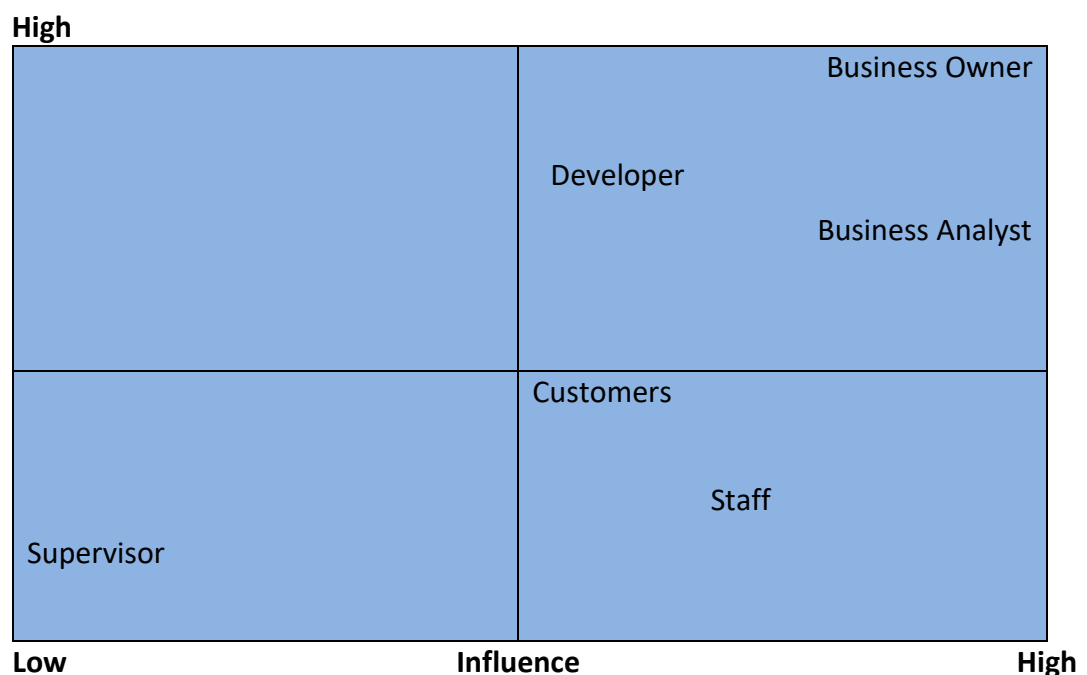
2.6 Requirements Elicitation Techniques

2.6.1 Brainstorming

Overview:

This brainstorming session is designed to bring all relevant stakeholders together and gather viewpoints from various stakeholders in relation to the design and features of the proposed application.

Objectives of the Brainstorming Session:

Throughout this session, stakeholders will be discussing their ideas for the new application. Each idea will therefore be handwritten by the moderator along with any other important information throughout the session. A large list of application designs and features should therefore be retrieved from this session. After the session the handwritten notes taken by the moderator will then be typed into a Microsoft Word Document.

Participants:

1. One Student Customer.
2. One Full Time Employed Customer.
3. Business Owner
4. 1 Staff Member
5. One Potential Customer
6. Business Analyst

Time: 13.00 – 14.00

Date: 22nd January 2018

Location: Him Barbershop.

Rules:

1) All participants are required to arrive 15 minutes prior to the start time in order for the session to begin on time.
2) All participants will be allocated with time slots to vocalise their ideas.
3) During each individual's allocated time all participants are required to stay quiet and listen to each individual's ideas and thoughts.
4) The use of mobile phones is strictly prohibited, all mobile phones must be switched off and placed in a drawer inside the room.
5) Participants will be asked to leave if the moderator feels their behaviour is unsatisfactory.
6) The meeting must remain professional an objective driven, participants should remain focused on the tasks outlined in the sessions agenda.

2.6.2 Survey

Survey Participants:

1. Current Customers
2. Former Customers
3. Potential Customers
4. Parents of customers

Distribution Method:

- Online through social media platforms.
- In store through hard copies.
- Email.

Objectives of the Survey:

This survey is designed to gather requirements/information from various stakeholders involved with Him Barbershop particularly the customers -current, -past and -potential. The survey will be used to gather and identify any early requirements and to notice any demand for potential features for the application. All participants will be encouraged to take part in this survey and to answer as truthfully as possible.

Survey Questions:

https://docs.google.com/forms/d/1VEUvvdFIgfrhLm5fvOfhe8yHGBsuxFZCafJfmtghj4g/edit

1. **Please indicate your gender.**
   - ➢ **Female**
   - ➢ **Male**

2. **In which age group are you?**
   - ➢ **Teens**
   - ➢ **20's**
   - ➢ **30's**
   - ➢ **40's+**
   - ➢ **Child**

3. **What is your current employment status?**
   - ➢ **Employed**
   - ➢ **Self Employed**
   - ➢ **Student**

➢ **Retired**
➢ **Unemployed**

4. **How often do you get a haircut?**
   ➢ **Every Week**
   ➢ **Every 2 weeks**
   ➢ **Every 3 weeks**
   ➢ **Every 4 weeks+**

5. **How long do you wait on average each time?**
   ➢ **No Wait**
   ➢ **Up to 15 minutes**
   ➢ **Up to 30 minutes**
   ➢ **45 minutes+**

6. **If booking an appointment was available how likely would you be to use this? (Rank 1-5)**
   ➢ **1 (Definitely Not)**
   ➢ **2**
   ➢ **3**
   ➢ **4**
   ➢ **5 (Very Likely)**

7. **Which of the following device(s) do you own?**
   ➢ **iPhone**
   ➢ **iPad**
   ➢ **Android Phone**
   ➢ **Laptop**
   ➢ **Other**

8. **Have you downloaded apps to your device(s) before?**
   ➢ **Yes – Always Free**
   ➢ **Yes – Free & Paid**
   ➢ **Yes – Always Paid**
   ➢ **No**

9. **If there was an app developed with the function to book an appointment how likely would you be to use this? (Rank 1-5)**
   ➢ **1 (Definitely Not)**
   ➢ **2**

➢ 3
➢ 4
➢ 5 (Very Likely)

10. If the possibility to pay through the app for your haircut was available how likely are you to use this function? (Rank 1-5)
➢ 1 (Definitely Not)
➢ 2
➢ 3
➢ 4
➢ 5 (Very Likely)

11. Please indicate which features and information you would like to see on the app.
➢ Price List
➢ Location
➢ Hair Products available to purchase
➢ Link to Social Media Pages
➢ Contact Details
➢ Calendar
➢ Booking System
➢ Opening Hours
➢ About us
➢ Gallery
➢ Other:

12. The current Him Barbershop website fulfils all my requirements. (Rank 1-5)
➢ 1 (Strongly Disagree)
➢ 2
➢ 3
➢ 4
➢ 5 (Strongly Agree)

13. What rating would you give the current website? (Rank 1-5)
➢ 1 (Poor)
➢ 2
➢ 3
➢ 4

> ➤ **5 (Excellent)**

14. How would you describe the visual content on the current Him Barbershop website?
> ➤ **Text size and font type is satisfactory.**
> ➤ **Text size is too small, but font type is suitable.**
> ➤ **Text size is satisfactory, but font type is unsuitable.**
> ➤ **Other:**

15. Which of the following Him Barbershop social medias do you interact with or track the most?
> ➤ **Snapchat**
> ➤ **Facebook**
> ➤ **Instagram**
> ➤ **Twitter**
> ➤ **Other:**

16. In which way are you associated with Him Barbershop?
> ➤ **Current Customer**
> ➤ **Former Customer**
> ➤ **Potential Customer**
> ➤ **Other:**

2.6.3. Interviews

Interview One:

Participants: Current Customer

Interview Location: Costa Coffee Finglas Village, Dublin.

Date of Interview: 12th March 2018.

Time of Interview: 13.00-14.00.

Objectives of the Interview:

This interview is designed to gather requirements from a current customer related to Him barbershop. The issues being encountered by this customer will be discussed as well as any recommendations they have for the new proposed mobile application. The desired outcome of this interview is to gather key requirements from the customer on his expectations for the future mobile application and his thoughts on proposed features. Responses from this interview will be typed out by myself to ensure the feedback is precise.

Interview Questions:

1. How often do you visit the current Him Barbershop website? What is your primary reason for visiting the website?
2. What features do you utilise the most on the current Him Barbershop website? Do these features need to be improved in any way?
3. Based on importance which feature of the following would you want to see on the new mobile application; - Booking System, - Location, - Card Payment, - Price List.
4. Do you purchase any hair products in store and if so how likely would you be to purchase online and have them available for pickup on your next visit?
5. What types of features are not being delivered on the current Him Barbershop website that you feel should be implemented onto the new mobile application?
6. Who do you feel is affected by the absence of the feature/features on the current Him Barbershop website and how will these features be beneficial?
7. What do you feel could be implemented on the mobile application to attract new customers to Him Barbershop?

Interview Two:

Participant: Current Staff Member

Interview Location: Him Barbershop

Date of Interview: 19th March 2018

Time of Interview: 9.00am-10.00am

Objectives of the Interview: This interview is designed to gather requirements from a current staff member of Him barbershop. The issues being encountered by this staff member will be discussed as well as any recommendations they have for the new proposed mobile application. The desired outcome of this interview is to gather key requirements from the staff member on his expectations for the future mobile application and his thoughts on proposed features. Responses from this interview will be typed out by myself to ensure the feedback is precise.

Interview Questions:

1. How often do you use/visit the current Him Barbershop website? What is your primary reason for visiting the website?
2. What features do you utilise the most if any on the current Him Barbershop website? Do these features need to be improved in any way?
3. Based on importance which feature of the following would you want to see on the application; Booking System, Price List, Opening Hours, Card Payment.
4. What types of features are not being delivered on the current Him Barbershop website that you feel should be implemented onto the new mobile application?
5. Who do you feel is being affected by the absence of the feature/features on the current Him Barbershop and how will these features be beneficial?
6. What do you feel as a staff member should be implemented on the mobile application to attract new customers to Him Barbershop?

Interview Three:

Participant: Former Customer

Interview Location: Costa Coffee Finglas Village, Dublin.

Date of Interview: 26th March 2018

Time of Interview: 15.00-16.00

Objectives of the Interview: This interview is designed to gather requirements from a former Him Barbershop customer. The issues which the former customer may have encountered will be discussed as well as any recommendations they have for the new proposed mobile application. The desired outcome of this interview is to gather key requirements from the former customer on his expectations for the future mobile application and his thoughts on proposed features. I hope to get an insight into why the customer choose to go elsewhere and if there is any way we can prevent this from occurring again. The Responses from this interview will be typed out by myself to ensure the feedback is precise.

Interview Questions:

1. Interview Questions: How often do you visit/did you visit the current Him Barbershop website? What is/was your primary reason for visiting the website?
2. What features do/did you utilise the most on the current Him Barbershop website? Do these features need to be improved in any way?
3. What was the reason which resulted in you becoming a former customer rather than a current customer?
4. Based on importance which feature of the following would you want to see on the new application; - Booking System, Price List, Card Payment, Location.
5. What types of features are not being delivered on the current Him Barbershop website that you feel should be implemented onto the new mobile application?
6. Who do you think is affected by the absence of the feature/features on the current Him Barbershop and how will these features be beneficial?
7. Would the implementation of these features help persuade you in returning to him Barbershop? If so explain why.

8. What do you feel could be implemented on the mobile application to maintain customers for Him Barbershop?

Interview Four

Participant: Developer

Interview Location: Costa Coffee Finglas Village, Dublin

Date of Interview: 9th April 2018

Time of Interview: 14.00-15.00

Objectives of the Interview:

The idea of the proposed app will be discussed at the beginning of the interview to ensure the developer understands the idea and clear up any confusion. The objectives of this interview with the developer is to gather functional and non-functional requirements as well as gathering layout and design feedback. It may provide requirements that have been previously overlooked.

Interview Questions:

1. What are your initial thoughts on the idea presented to you?
2. How long roughly would an app like this take to be developed?
3. What requirements are expected of this application?
4. In relation to storage of information for appointments what is needed to incorporate this feature?
5. What features do you think this application needs?
6. Are there any security issues?
7. Have you any advice going forward in the development of this App?

2.6.4. Prototyping:

Objectives of the Prototype:

This prototype will be the first visual representation created of the new Him Barbershop mobile application. The main purpose of the first prototype is to receive feedback from relevant stakeholders and it will be used in my Requirements Workshop. This prototype will be a created from my understanding of the requirements gathered from the brainstorm, survey and interviews. This will be very beneficial as it will reduce the chance of any confusion between the business analyst and stakeholders. The second prototype will incorporate any changes or alterations that arise from the requirements workshop.

Resources Required:

- Laptop with internet connection.
- Results from the brainstorming session, survey and the four interviews will be used to develop the prototype.
- Balsamiq will be used to create the prototype.

Prototype Development Checklist:

- Examine interview results and combine the features into the prototype.
- Interpret and examine the results from the brainstorming session and include the relevant features in the prototype.
- Gather and implement requirements based on the results of the survey.
- Develop a prototype for use at the Requirements Workshop.
- Implement any relevant alterations to the prototype based on the feedback gathered at the Requirements Workshop.

Participants:

- Business Analyst
- Project Sponsor
- Current Customer
- Potential Customer
- Former Customer
- Staff Member

2.6.5. Requirements Workshop:

Workshop Preparation Checklist:

- Invite all participants via email or text message and list the time, date and location of the workshop and attach copy of the rules and agenda.
- Finalise an appropriate time, date and location for the workshop.
- Create an agenda for the Requirements Workshop.
- Organise all resources required prior to the Requirements Workshop.
- Ensure all invited participants are available to attend.

Participants:

- Business Analyst.
- Business Owner.
- One Current Customer.
- One Staff member.
- Potential Customer.

Requirements Workshop Location: Him Barbershop

Date of Requirements Workshop: 23rd April 2018

Time of Requirements Workshop: 13.00 – 15.00

Objectives of the Requirements Workshop:

The requirements workshop has been organised to discuss mainly the design and layout of Him Barbershops new mobile application. The main goal of this workshop is to gather an understanding of what is required from key stakeholders in relation to the type of layout and design. This will be accomplished by evaluating the first prototype of the new mobile application as well as exploring competitor's websites. The second goal of this workshop is to identify any features that were not discussed in any previous elicitation techniques sessions. We will also review the features that were listed on the first application prototype and discuss any possibilities of editing, adding or removing any features. All participants will be encouraged to offer their opinion and may discuss the possibilities of using/exploring features already utilised by competitors if they feel they are appropriate.

Agenda:

1) Define the reason for conducting the Requirements Workshop to all participants.
2) Clarify all rules in relation to the workshop to all participants.
3) Outline the end goal and deliverables required
4) Evaluate the current website and the first prototype with all participants.
5) Research competitor websites with participants.
6) Discuss layout and design options with participants.
7) Identify new and/or additional features which are required on the application.
8) Agree on layout, design and additional features for the new prototype with all participants.

Resources Required:

- Internet Connection
- Tables & Chairs
- Mobile Phones, Laptops, iPad etc.
- Microsoft Power Point in order to display the first prototype.
- Private Room
- Microsoft Word to document all relevant input.

Workshop Rules:

1) All participants are required to arrive 15minutes prior to the start time to prevent any delays from occurring.
2) Mobile phones and other electronic devices are permitted but only on the condition they are used for research purposes.
3) The workshop must remain professional and each participant must work in collaboration with others to help accomplish the final deliverables of the workshop.
4) All participants are required to listen at all times to instructions and to any input provided by fellow participants.
5) In order for the workshop to be successful participants are required to work collaboratively. Any disruptive behaviour will result in the end or postponement of the workshop, or the disruptive participant/participants will be asked to leave.
6) The organizer of the workshop will be in control with all aspects in relation to the workshop.
7) Participants are encouraged to share their opinions and ideas but should only be related to the relevant topics.

2.6.6. Interface Analysis:

Objectives of Interface Analysis:

After the requirements workshop and the prototype were successfully completed a use case diagram was then created. This in depth diagram demonstrates the interface types which are related with the app. The diagram will outline how stakeholders will interact with the new Him Barbershop mobile application. For example, customers should not be able to edit or change any content on the price list page. The main objective of this diagram is to visually represent how the users/stakeholders will interact with the system/application.

Resources Required:

Use Case Diagram Stakeholders:

- Current Registered Customer
- Staff Member
- Unregistered Customer/ Potential Customer.

Use Case Diagram Checklist:

- Review the prototype for user-app interactions.
- Develop a Use Case Diagram for the myHIM application.

Use Case Diagram Users/Stakeholders

- Current Registered Customer
- Unregistered / Potential Customer
- Staff Member / Admin

3.Requirements Elicitation Analysis and Results

3.1 Requirements Elicitation Techniques

3.1.1. Brainstorming

The moderator documented each participant's comments and ideas as they were presented during the brainstorming session.

Business Owner:

First to present was the business owner, he started with his name suggestions for the application. These ideas were, Him Barbershop App, HimApp, myHim and myHimbarbershop. He also suggested that the new mobile application should have the capability to order and buy hair products which are available in store. Other features mentioned were to include a location and opening hours which are on the current website. He also brought to light the importance of a price list to be listed on the new mobile application as it is absent from the current website. The business logo to be visible on each page and when clicked on brings the user back to the home page. If for any circumstance the business logo is not present on certain page, a specific line of text/title/app name once clicked upon should bring the user back to the homepage. He also recommended having pop-up error messages with instructions for users. Simple but effective GUI is required, he recommended a navigation panel at the top of the pages with a list/links of other pages on the application. Finally, something he mentioned was the capability of paying by card.

Current Customer:

Second to present was a current customer, he started with commenting about the long wait that is often involved with visiting the barbershop. His first idea was to implement a booking system feature in the application which would allow customers pre-book hair appointments through the application. This would be a storage database for the barbers and one they can check on a regular basis to stay on top of demand. Secondly, he mentioned the importance of linking the current Him Barbershop social media pages to the application. The current customer then went on to mention like the Business owner the importance of adding the opening hours to the mobile application. He suggested having the possibility to remain logged in to the app once logged in to prevent having to continuously login. The current customer also mentioned that each customer should have the possibility to creating a profile which allows them to login and logout with username and password. This profile would be then used to make appointments and to receive notifications and reminders.

Potential Customer:

Third to present their ideas was a potential customer, he started by saying the current Him Barbershop website does not provide potential customers like him with much important information. He started with mentioning there is no price list on the current website and feels this is very important to add to the mobile application. He also stated that a gallery/slideshow feature would be very beneficial on the mobile application. He said this would provide not just potential but current customers the ability to browse through the gallery/slideshow of

haircuts carried out in store. He said for potential customers this would provide them with a visual representation of the standard to expect in store and for current customers provides them with a range of haircuts to seek ideas from. He would also like to see general day to day things appear on the application such as a local weather forecast and time just to add to the apps content. The potential customer built on from the current customer's idea of creating a profile and stated that, potential customers who do not what to sign up/ create a profile should be able to access the application through a guest profile offering them limited access compared to signed up customers. Finally, he mentioned about the importance of adding a google map location for the barbershop to allow all new/potential unfamiliar customers locate the shop without any hassle.

Staff Member:

Fourth and last of the group to present their ideas was a current staff member, he started by mentioning the importance of linking the social media pages to the mobile application. He felt due to the rapid growth in the use of social media that it would be vital to add this to the app. He stated that in his opinion the app should be available for free. He also stated the importance of clearly listing the opening hours and price list to prevent customers being unaware of guessing this key information. He was also in agreeance with the current customer about the booking system and felt this would be extremely beneficial for all involved including himself. He mentioned the importance of only registered users having the possibility to book an appointment to prevent any problems from occurring such as users not showing up for appointment and wasting valuable business time. He also stated that the mobile application should consist of several pages with beneficial features and information, rather than one and listed some such as Home Page, Price List Page, Booking System Page, Gallery, Contact Page, Login Page, Initial App start up screen, register page were some pages which he listed. He felt as if staff members should also be able to login with predefined credentials.

Requirements Elicited from Brainstorming:

|	
Name – HimBarbershop App, HimApp, myHim and myHimbarbershop.	Several Pages with beneficial features and information.
Booking System Page	Store Booking Information Database
Opening Hours	Card Payment
Price List Page	Pay via App
Linked to Social Medias	Customer Login (Username & Password)
Gallery	Profile Notifications & Reminders.
Home Page	Simple but effective GUI – Navigation Panel
Staff Log Ins	Logo on every page
Remain Logged in	App should be free.
Local Weather Forecast and time	Error Messages with instructions
Registered users only have access to the booking system feature.	Google Map Location

Brainstorming Conclusion

I felt as if the brainstorming session was a real success, it allowed me to gather some early expectations from the stakeholder's present. Several key requirements were gathered. The stakeholders all cooperated during the session and listened to each stakeholder's opinions. They worked effectively as a team to help narrow down some requirements. Each stakeholder presented something interesting on the day which allowed for a large selection of proposed requirements. The brainstorming session surpassed my expectations greatly as I was quite nervous about how it would go and if any valuable information and requirements would come from it. All participants were very compliant with rules outlined at the beginning of the session which really helped improve the quality of the session. Some key requirements were brought to light during the session which have all been listed in the above chart.

3.1.2. Survey

1. Please indicate your Gender

193 responses

- Female
- Male

92.2%

7.8%
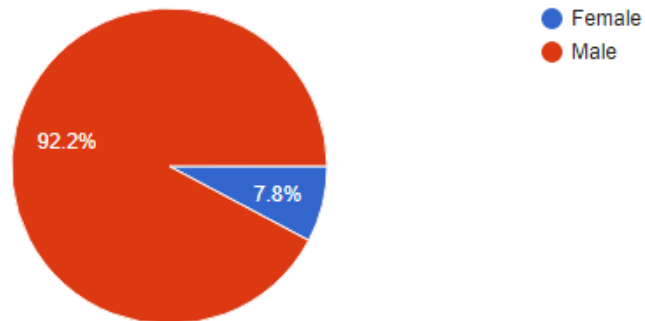
2. In which age group are you?

193 responses

- Teens
- 20's
- 30's
- 40's+

33.7%

13.5%

30.1%

22.8%
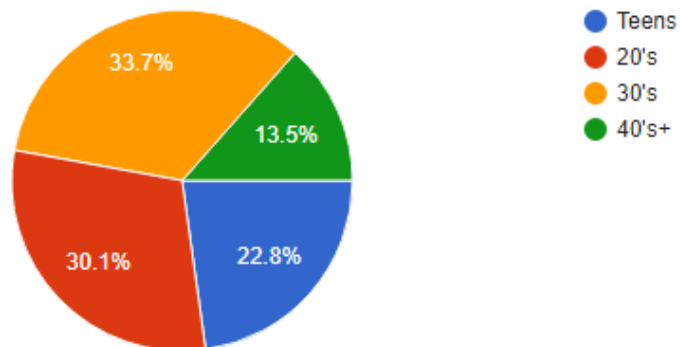
3. What is your current employment status?

193 responses

- Employed
- Self Employed
- Student
- Retired
- Unemployed

30.6%

16.6%

42.5%
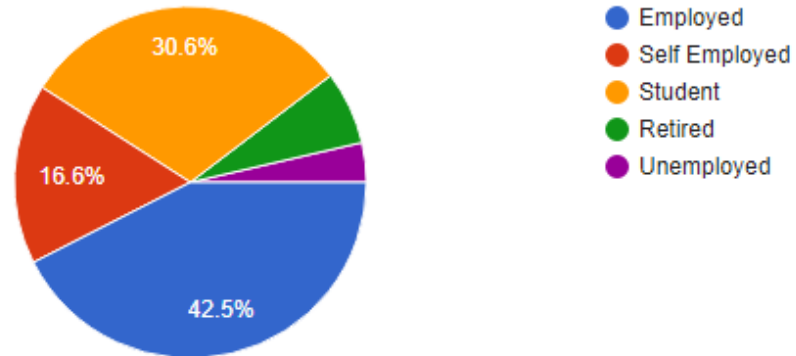
4. How often do you get a haircut?

193 responses

- Every Week
- Every 2 weeks
- Every 3 weeks
- Every 4 weeks+

34.7%

15.5%

43%
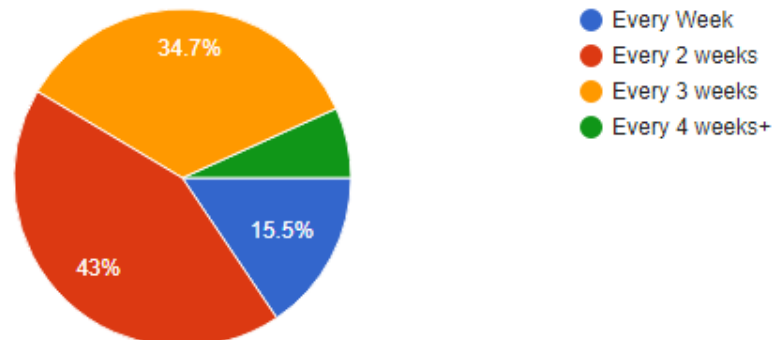
5. How long do you wait on average each time?

193 responses

- No wait
- Up to 15 minutes
- Up to 30 minutes
- 45 minutes+

30.1%
12.4%
57.5%
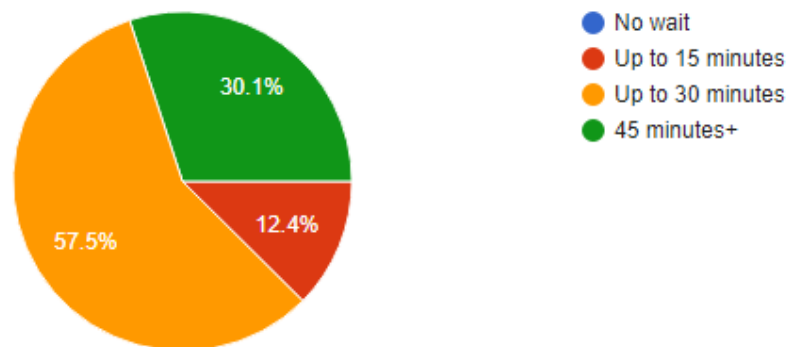
6. If booking an appointment was available how likely would you be to use this?
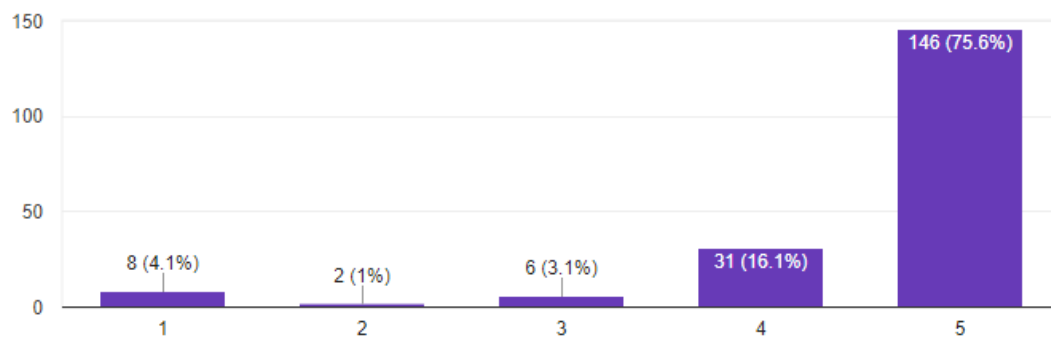
193 responses

7. Which of the following device(s) do you own?

193 responses

Device	Count
Iphone	110 (57%)
Ipad	57 (29.5%)
Android Phone	82 (42.5%)
Laptop	41 (21.2%)
None of the above	1 (0.5%)
None of the above	1 (0.5%)
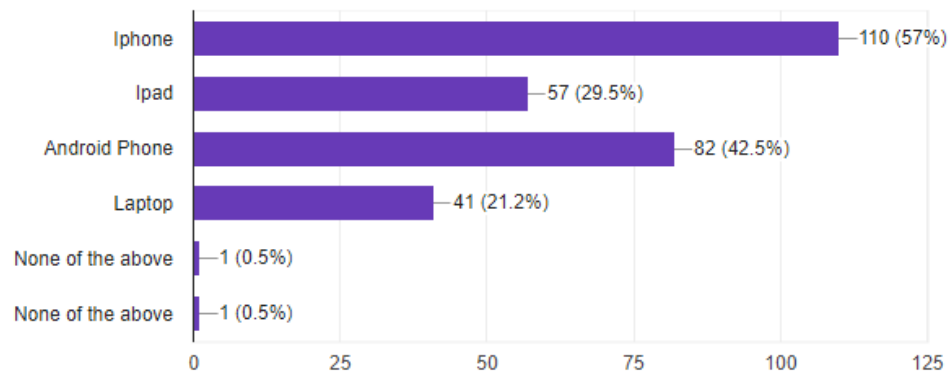
8. Have you downloaded apps to your device(s) before?

193 responses
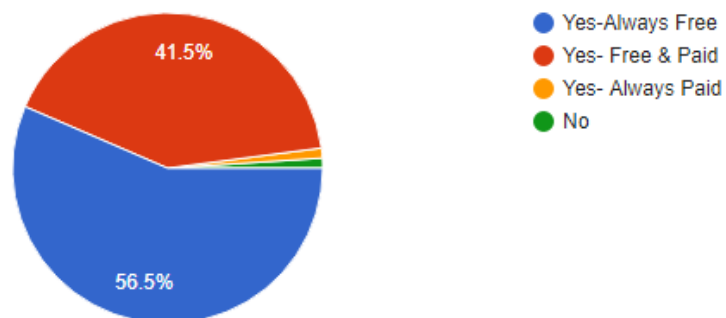
- Yes-Always Free — 56.5%
- Yes- Free & Paid — 41.5%
- Yes- Always Paid
- No

9. If there was an app developed with the function to book an appointment how likely would you be to use this?
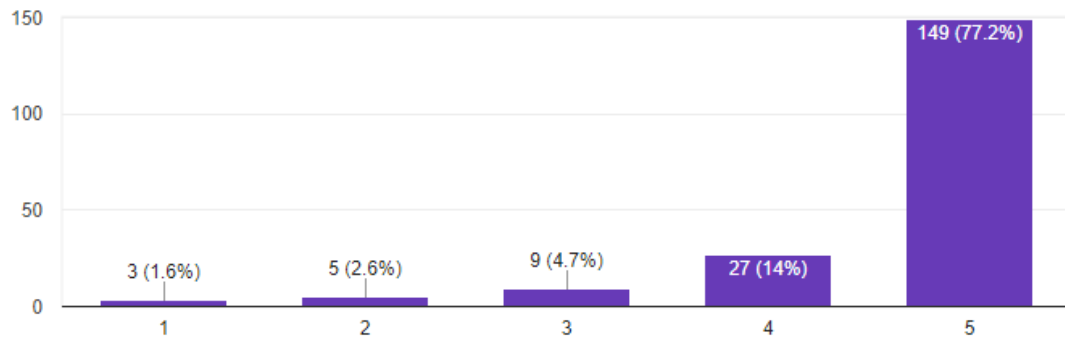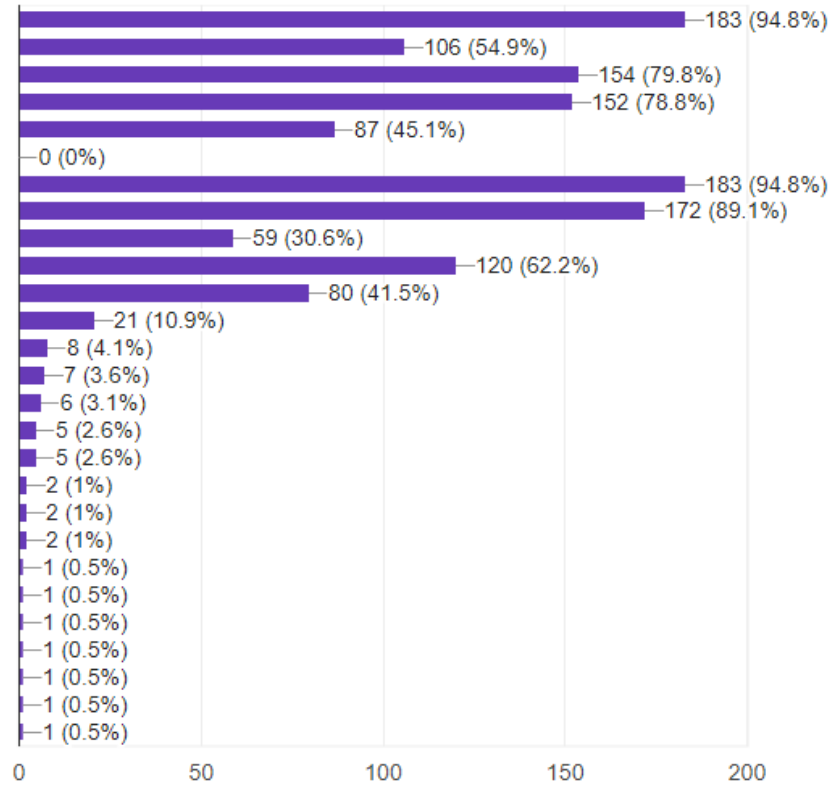
193 responses

10. If the possibility to pay through the app for your haircut was available how likely are you to use this function?
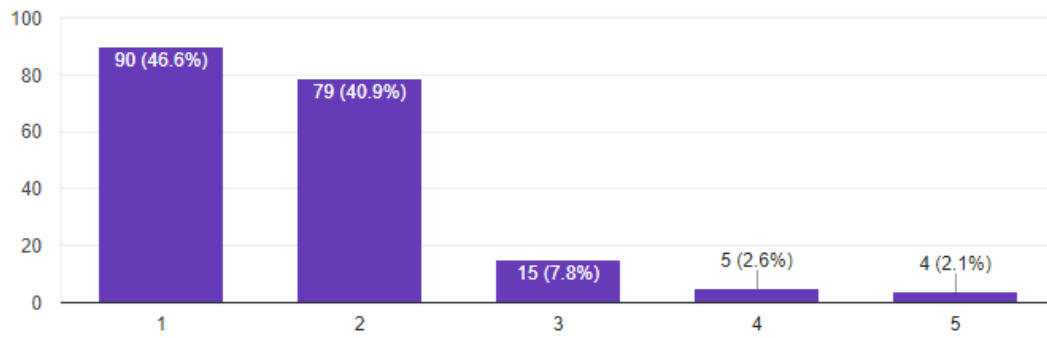
193 responses
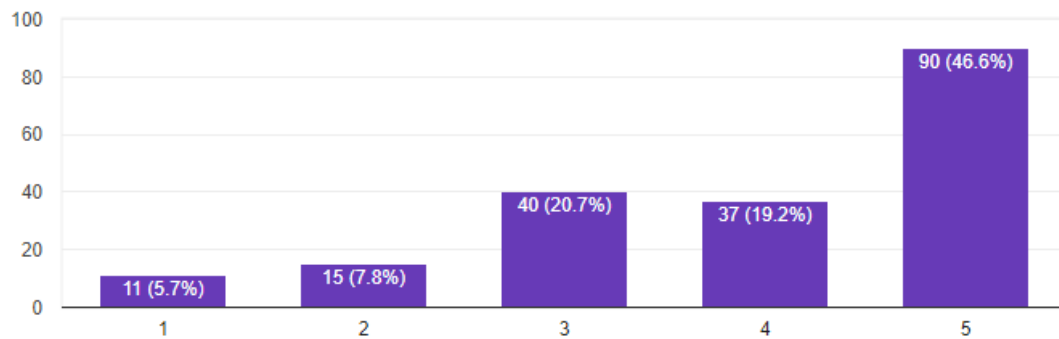
11. Please indicate which features and information you would like to see on the app.

193 responses

- 183 (94.8%)
- 106 (54.9%)
- 154 (79.8%)
- 152 (78.8%)
- 87 (45.1%)
- 0 (0%)
- 183 (94.8%)
- 172 (89.1%)
- 59 (30.6%)
- 120 (62.2%)
- 80 (41.5%)
- 21 (10.9%)
- 8 (4.1%)
- 7 (3.6%)
- 6 (3.1%)
- 5 (2.6%)
- 5 (2.6%)
- 2 (1%)
- 2 (1%)
- 2 (1%)
- 1 (0.5%)
- 1 (0.5%)
- 1 (0.5%)
- 1 (0.5%)
- 1 (0.5%)
- 1 (0.5%)
- 1 (0.5%)

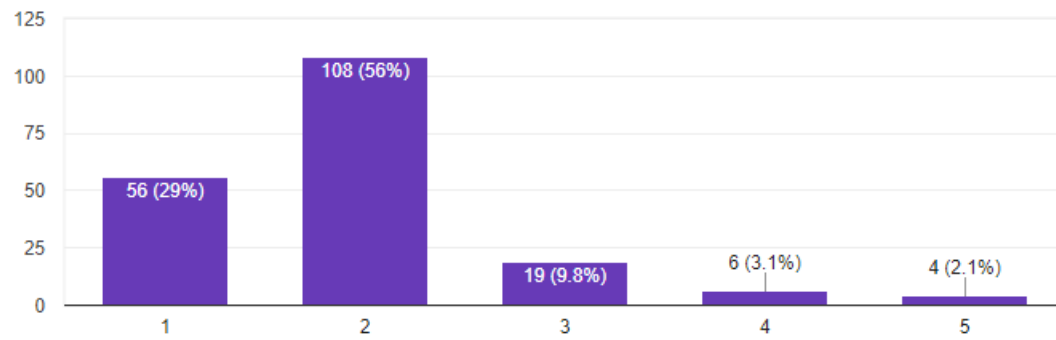## 12. The current HIM Barbershop website fulfils all my requirements

193 responses
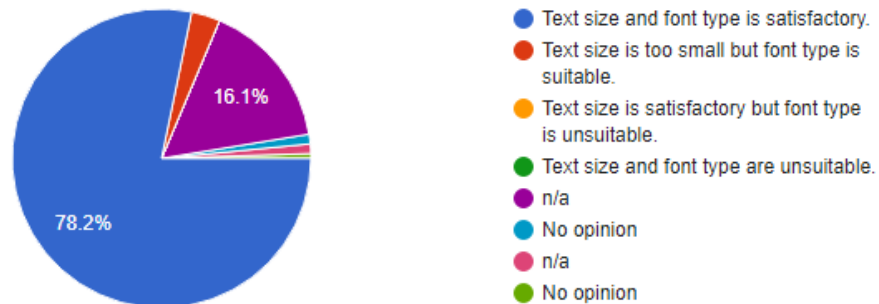

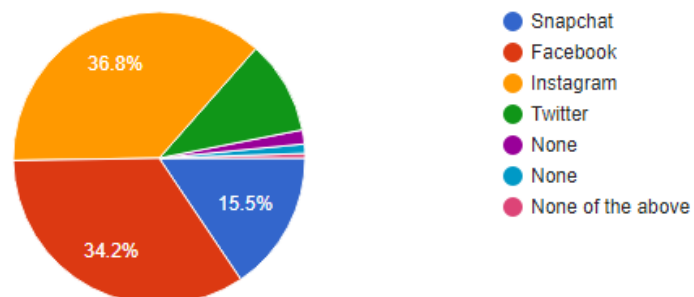## 13. What rating would you give the current website?

193 responses

14. How would you describe the visual content on the current Him Barbershop website?

193 responses

- ● Text size and font type is satisfactory.
- ● Text size is too small but font type is suitable.
- ● Text size is satisfactory but font type is unsuitable.
- ● Text size and font type are unsuitable.
- ● n/a
- ● No opinion
- ● n/a
- ● No opinion

78.2%

16.1%

15. Which of the following Him Barbershop social medias do you interact with or track the most?

193 responses

- ● Snapchat
- ● Facebook
- ● Instagram
- ● Twitter
- ● None
- ● None
- ● None of the above

36.8%

15.5%

34.2%

16. In which way are you associated with Him Barbershop?

193 responses

- Current Customer
- Former Customer
- Potential Customer
- Parent
- Parent
- Current Customer + Parent
- Current Customer + Parent

75.6%
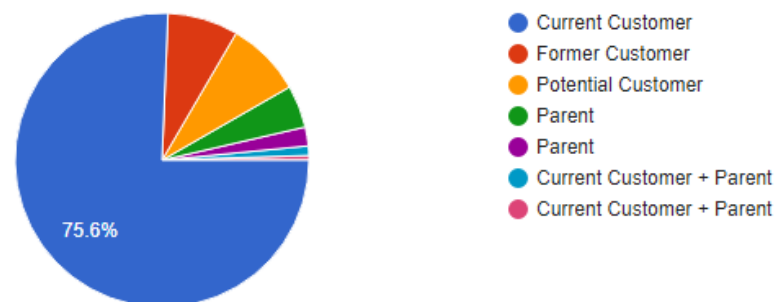
Survey Conclusion:

With the use of online platforms and in store hardcopies allowed for a large number of respondents in a relatively short time period. In total, there were 193 responses. After receiving several hardcopies, I then filled out their information into the online source to store all data in one safe place. The stakeholders that completed the survey vary in terms of their gender type, age, occupation and how often they visit the barbershop for a haircut. This allowed me to gather a wide range of viewpoints from conducting this survey.

The survey was mainly completed by male participants with 92.2% of responses and only 7.8% of respondents were female. This was to be expected prior to the release of the survey as it is predominantly a male based clientele in store. Sticking with demographics the age of participants was very mixed with 22.8% of participants in their teens, 30.1% in their 20's, 33.7% in their 30's and 13.5% answering 40+.

After gathering some brief demographic information, more specific questions were then asked in relation to the proposed app, features and the current website.

A significant proportion of participants (75.6%) stated they would be "Very Likely" to book an appointment if it was available and 77.2% of participants also stated they would be "Very Likely" to use an app with the feature of booking an appointment. 94.8% of participants stated they would like to see a booking system on the mobile application. Due to this high demand from participants the booking system is a must and will feature on the new Him Barbershop mobile application.

The new Him Barbershop mobile application will include a price list page due to the high demand stated from participants with 183 of the 193 requesting it (94.8%). This is absent on the current website and quite evidently respondents feel it is necessary to feature on the new application.

The font type and size were regarded as "satisfactory" in most of the responses and therefore they will remain the same on the mobile application.

A substantial number of participants stated that the current Him Barbershop does not fulfil their requirements and gave the website a very poor rating.

The new Him Barbershop mobile application should include features such as the possibility to pay through the app via card payment as there was quite a high demand for this with 46.6% of participants stating they would use this feature.

46.6% of participants stated if the possibility to pay through the application was available they would indeed be 'Very Likely' use it.

A significant percentage of participants 57.5% stated waiting up to 30 minutes for haircut and a further 30.1% stated of waiting 45+ minutes. A small percentage of only 12.4% stated waiting up to 15 minutes. 0% of participants stated that they have 'No Wait' when coming in store to get a haircut. Due to these numbers it is quite evident to see why the appointment booking system is needed and how it will benefit both the business and its customers. The appointment booking system will therefore greatly reduce this unnecessary wait times for customers which will therefore improve customer satisfaction rates and therefore reduce the possibility of them choosing to look elsewhere.

Due to the large variety of users of both Apple and Android devices it is crucial that the application will be available for download on both the Apple and Google Play Store.

According to respondents Facebook, Instagram and Snapchat are the most popular Him Barbershop social media pages with 36.8% selecting Instagram as the Him Barbershop social media page they interact with/track the most. 34.2% choose Facebook and a further 15.5% choose Snapchat. Due to these numbers its clear these 3 social media pages at minimum must be linked/appear on the new proposed app.

The responses I received from the options to answer "other" highlighted some requirements such as Rewards and Loyalty System and to include the regular competitions and giveaways that do generally appear on the social media pages on the app.

Overall I am happy with how the survey played out. The large number of responses will help in gathering more requirements as well as confirming the demand for other requirements and the application.

3.1.3. Interviews:

3.1.3.1. Interview One:

Participant: Current Customer

Interview Questions & Answers:

1. **How often do you visit the current Him Barbershop website? What is your primary reason for visiting the website?**

   I visit the current him barbershop website once a month at the most. The primary reason for visiting the website is to check opening hours.

2. **What features do you utilise the most on the current Him Barbershop website? Do these features need to be improved in any way?**

   The only feature I utilise on the current website is the opening hours, I feel as if the overall website needs to be improved rather than an individual feature.

3. **Based on importance which feature of the following would you want to see on the application; - Booking System, Price List, Card Payment, Location.**

   For me personally I would rank them based on importance in the following order; 1. Booking System 2. Card Payment 3. Price list and 4. Location.
   Location is of least importance to me because as a current customer I know where the barbershop. Booking system is of top importance to me as it would solve/reduce the problem of long waiting times.

4. **Do you purchase any hair products in store and if so how likely would you be to purchase online and have them available for pickup on your next visit?**

   Yes, I do purchase hair products in store and I would be extremely likely to purchase online and have them available for pickup on my next visit. This would be very beneficial as it would mean the product If bought online is guaranteed to be in stock on my next visit and it will reduce the likelihood of me forgetting to purchase in store if it is already prepaid for.

5. **What types of features are not being delivered on the current Him Barbershop website that you feel should be implemented onto the new mobile application?**

There are several key features I feel need to be implemented onto the mobile application. The first and most important one for me personally would be a booking system to book appointments. This would be greatly beneficial to me personally as it would reduce/eliminate the long wait times generally involved in store. A second key feature which needs to be implemented is the option to pay by card through the application.

6. **Who do you think is affected by the absence of the feature/features on the current Him Barbershop and how will these features be beneficial?**

    I feel the customers are mainly effected by the absence of these features but I feel this also has a great effect on the business as a whole as the lengthy wait times will result in the loss of customers. I feel as if these would be beneficial as it would improve customer satisfaction levels and also maintain current customers as well as attracting new ones.

7. **What do you feel could be implemented on the mobile application to attract new customers to Him Barbershop?**

    I feel as if a loyalty or rewards system for customers who book an appointment through the app would have the potential to both attract new customers and maintain current customers. Even if it was something as small as 50% of your next haircut or hair product after 10 haircuts. I feel as if this would provide customers with some sort of incentive.

Interview Conclusion:

This interview was very informative and beneficial as it provided me with some key feedback and I gathered some relevant requirements from it. The customer stated that the appointment booking system is the most important feature for him personally to feature on the application followed by card payment One interesting piece of feedback was the requirement for a loyalty or rewards system to attract new customers. He suggested of adding incentives to the loyalty/rewards system such as 50% of your next haircut or hair product after 10 haircuts to attract and maintain customers. It was also valuable to see the customer rank in order of importance which feature he would like to see on the application which in his case was the Booking System. This feedback is going to help when conducting a Moscow analysis. The possibility of adding a feature to order and collect hair products on next visit/appointment received very positive feedback from the customer and is a requirement which will be considered.

3.1.3.2. Interview Two:

Participant: Staff Member

Interview Questions & Answers:

1. **How often do you use/visit the current Him Barbershop website? What is your primary reason for visiting the website?**

   Not as often as I should my primary reason for using the website is to update any relevant details such as new job opportunities.

2. **What features do you utilise the most if any on the current Him Barbershop website? Do these features need to be improved in any way?**

   To be honest I use very few features on the website, but I feel as is several things should be brought from the current website to the new application more for the customers benefit than mine. These would be location by using google maps, opening hours, news and updates page, and about us section.

3. **Based on importance which feature of the following would you want to see on the application; Booking System, Price List, Opening Hours, Card Payment.**

   1.Booking System, 2. Card Payment, 3. Opening Hours and 4. Price List. Personally, I would really like to see the implementation and introduction of the booking system I feel it would be very beneficial to both myself as a staff member and the barbershop as a whole. It would help reduce the long ques and wait times as well as the possibility of a fixed time lunch break rather than just when it becomes less busy. I feel as if the card payment would also be very beneficial as a lot of customers have to leave and find the nearest ATM and return to pay this would help eliminate this problem.

4. **What types of features are not being delivered on the current Him Barbershop website that you feel should be implemented onto the new mobile application?**

   One key feature that isn't present on the current website, but I feel must be available on the mobile application is an employee/barber profile. Basically, this would just entail a quick paragraph about each barber working in store which would allow the customers to get to know each barber on a more personal level but would also provide a few images of each barbers work so they could get an idea what to expect when visiting the store.

I also feel that an appointment booking system needs to be implemented on the new mobile application. I feel as if a login with username and password for both for customers and staff members is also necessary on the mobile application.

5. **Who do you feel is being affected by the absence of the feature/features on the current Him Barbershop and how will these features be beneficial?**

I feel as if we as barbers are being affected by the absence of the employee profile it would allow us as individuals to tell our current and potential customers a little about us on a personal level as well as showcasing are work to date. This also effects potential customers thinking about coming in store as they are clueless to what standard to expect from each individual barber.

6. **What do you feel as a staff member should be implemented on the mobile application to attract new customers to Him Barbershop?**

I feel as a staff member the employee profile like I said above would be a great idea to attract new customers into the barbershop. Other than this I feel as if an image gallery with pictures of previous haircuts would help attract new customers as it would provide them with a visual representation of each individual barbers and the barbershop as a wholes capability.

Interview Conclusion:

This interview was extremely informative and helped in gathering a key requirement that has not come to our attention in previous sessions. This requirement is to have an employee/barber profile on the application. Interestingly the current staff member felt as if this employee profile would help attract new customers to the business. Interestingly enough like the previous interview with the current customer the staff member also listed the Booking system as number based on importance for the feature to appear on the mobile application. The current staff member has also highlighted the fact that card payment would be very beneficial and as we noticed in the survey results a significant number of participants requested the possibility to pay by card.

3.1.3.3. Interview Three:

Participant: Former Customer

Interview Questions & Answers:

1. **How often do you visit/did you visit the current Him Barbershop website? What is/was your primary reason for visiting the website?**

   I very rarely visited the current Him Barbershop website, my primary reason for visiting it when I did was to look for the contact us page in order to retrieve the phone number.

2. **What features do/did you utilise the most on the current Him Barbershop website? Do these features need to be improved in any way?**

   The only features I used on the website was the contact us page to retrieve the phone number and the opening hours section.

3. **What was the reason which resulted in you becoming a former customer rather than a current customer?**

   The main reason for me choosing to look elsewhere to get a haircut was for one reason and one reason only. The long wait times. I had on numerous occasion found myself waiting for nearly 2 hours at peak times just to get a haircut. It was nothing to do with the quality or price I chose to look elsewhere. Considering now where I currently go for a haircut is more expensive says it all I think. Quality or value is never a question in Him Barbershop, but the real question mark would be, is the wait really worth the quality and value?

4. **Based on importance which feature of the following would you want to see on the new application; - Booking System, Price List, Card Payment, Location.**

   Based on importance to me personally I would rank it in the following order 1. Booking System 2. Price List 3. Card Payment 4. Location.
   I feel as if the booking system is something which is really lacking in the barbershop. The barbershop is regularly overcrowded with no seats available forcing customers to wait outside the door in all sorts of weather conditions. If this was implemented I think you would see a great reduction in the crowds waiting within and outside the shop.

5. **What types of features are not being delivered on the current Him Barbershop website that you feel should be implemented onto the new mobile application?**

Features like mentioned above mainly the booking system I feel not only should be but needs to be implemented into the new mobile application for the sake of the business. Other things which could be implemented would be general things often seen on competitor's websites such as price lists, barber profiles, contact us page with phone numbers, emails and contact us forms.

6. **Who do you think is affected by the absence of the feature/features on the current Him Barbershop and how will these features be beneficial?**

I feel everyone associated with the barbershop is affected by the absence of these features whether that be the owner, staff and customers.
The owner is reducing his chance of expansion and losing customers me being exhibit A due to the absence of these features. The staff are often working in overcrowded spaces with minimal break/rest time and finally the customers are experiencing long wait and sometimes have to even stand outside the store as there is simply no space for them.

7. **Would the implementation of these features help persuade you in returning to him Barbershop? If so explain why.**

Like I said in previous questions the reason why I choose to look elsewhere is clear, due to the long wait times. So, if the new mobile application implemented appointments booking this would most certainly help persuade me in returning to Him Barbershop as I said previously there was never a question about quality or value in store.

8. **What do you feel could be implemented on the mobile application to maintain customers for Him Barbershop?**

I feel as if implementing an appointment system is vital to maintaining customers as this would help reduce or eliminate the regular lengthy wait times.
With this implemented this would help maintain customers and reduce the chances of customers leaving for the same reason I did.
Maybe even adding a real time information section similar to waiting for a bus but in this case how long the current wait time is in store for walk ins.

Interview Conclusion:

This interview was very interesting to gather feedback and requirements from a former customer's perspective. The possibility to interview a former customer was something I was very happy about. The former customer highlighted his main and only reason for looking elsewhere for his haircut and that was the long wait times.

He ranked based on importance which feature he would like to see on the mobile application as follows – 1. Booking System 2. Price List 3. Card Payment 4. Location.

It was also interesting to hear him mention things that could be implemented are things such as barber profiles, price list and a contact us page with phone numbers, emails and contact us forms that can be found on competitor's websites.

The former customer also mentioned his satisfaction with both price and quality of haircuts in Him Barbershop.

He stated that he felt an appointment system is vital in maintaining customers as it would reduce or eliminate the lengthy wait times. Another interesting recommendation he made was adding a real time information section which would indicate how long the current wait time is in store for a haircut.

3.1.3.4. Interview Four:

Participant: Developer

Interview Questions & Answers:

1. **What are your initial thoughts on the idea presented to you?**

   I think it is a great idea for an application, and there is a gap in the market at present for it as I have not come across any barber applications with this pre- book functionality. It is also highly convenient for clients to use and for the barbers to use so it is a very beneficial on both ends.

2. **How long roughly would an app like this take to be developed?**

   Putting a timescale on this would be difficult but if I was pushed I would say, designing and building an application like this would take an estimate of 10-14 days. This estimate is due to the pages -required such as gallery, opening hours, price list etc. The basic design would take maybe 4-6 days where as the more complex functionality like Login and payment features would take me a considerable amount of time as they need to be done correctly for the app to perform at its best.

3. **What requirements are expected of this application?**

   The main requirements of this application would be to allow users to successfully book in to the barbers and make an appointment. The requirements would need to be that the barber shop receives notification of this appointment and that the user receives confirmation that the booking has been set. This would be done via email or SMS. When a user makes an appointment the barber shop will receive email and approve or not approve the selected appointment time. Another requirement would be to allow secure and fast payments through the website to allow the barber shop to make money and also to keep the clients who want to pay via the app happy to have the option to do so.

4. **In relation to storage of information for appointments what is needed to incorporate this feature?**

   Storing of this information would be done on a 3ʳᵈ party SQL database such as WordPress. WordPress is a content management system and would be perfect for the build of this application. WordPress uses phpmyadmin to store the inputted data. This data can be accessed through the root folders within the application. An input field on the front end of the website which will allow the booking of appointments is required, when a user inputs through this field the data will be stored in the database, information such as name, email, phone number, appointment type barber and time is stored.

   Storing customer information is always a sensitive topic, so it must be address correctly. Customers will want to know what their data is being used for, particularly when they are using credit card details on the site. The best way to address this is to

make a Terms and Conditions page, with updated information about the new GDPR regulations included. You will need to make it transparent what exactly the information you receive will be used for when you receive it. You will also need to address how long you will retain this information on your systems.

5. **What features do you think this application needs?**
For this application to succeed and work to the best of its ability I believe it requires the following functionality at a minimum – Payment gateways, Login system, book appointment functionality, Gallery, GPS location to choose the nearest barber to you. If all of these features are implemented correctly I believe it will be a very successful user-friendly app.

6. **Are there any security issues?**
The security issues with this application is that it is holding sensitive information, which an attacker could potentially exploit. It could be an angry user, or somebody out for financial benefit however it is best to ensure the website is secure. Security issues that this application could potentially be a victim of would be Denial of Service (DOS) attacks, which is when an attacker sends so much traffic to the Login area of the application it crashes and goes offline. The application could be vulnerable to this attack as it has the option for login forums. Since there will be many input fields the application could potentially be vulnerable to SQL injection attacks which will allow the attacker to access unauthorized areas within the application, where they have access to sensitive information. To prevent these, I would develop with security principles in mind and ensure the application is at a minimum not vulnerable to the OSWAP top 10 vulnerabilities. To again ensure the security of the website, carrying out a pen test would be a good idea to find any initially missed vulnerabilities.
I recommend in relation to login and password details that the user's password must contain one upper case letter and one number and be at least six characters long.

7. **Have you any advice going forward in the development of this App?**
Advice going forward would be to build it with user functionality and friendliness in mind to allow for the ultimate user experience. This would mean a hassle-free booking of appointments. It would also be worthwhile having an administrator login with a specific username and password who will have access to change and modify content on the application such as images etc. Implement administrator privileges so that authorized personnel can add, edit or remove information on the app, the business owner should be responsible for authorizing/managing all administrator profiles and credentials. Admins should be able to view, edit, add, update and remove all content on each page of the application.
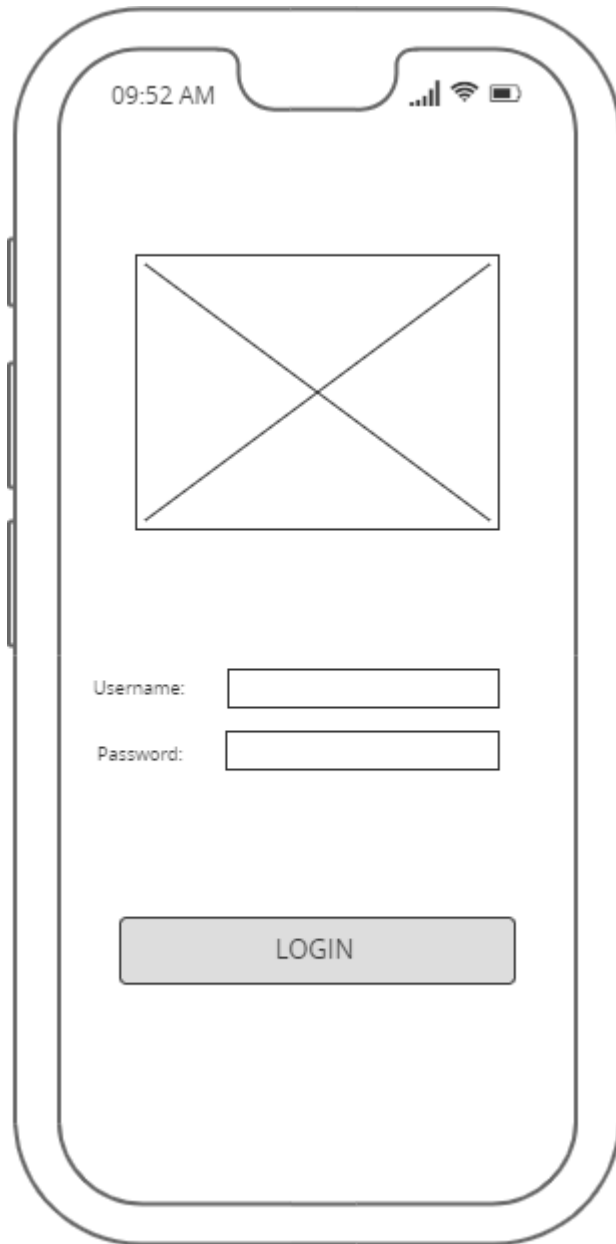
Interview Conclusions:

The developer provided some key insight into the technical details of the App particularly around the storage of information. He recommended storing the data through a 3rd party SQL Database such as WordPress. He also addressed a very important matter in relation to the new GDPR regulations. He recommended inputting a Terms and Conditions page to cope with the new regulations. The developer's advice going forward was to build it with user functionality and friendliness in mind to allow for the ultimate user experience. A Key requirement he highlighted was to implement administrator login for all maintenance of the app. This included things such as removing and updating content on all pages.

3.1.4. Prototyping:

Prototype Version 1:

Start Up Screen

Login Screen

Register Page

Register

Name

Email

Username

Password

Confirm Password

Mobile Number

Click To Confirm Registration ☐

I Have Read & Accepted all Terms & Conditions. ☐

Home Page

Booking System Page
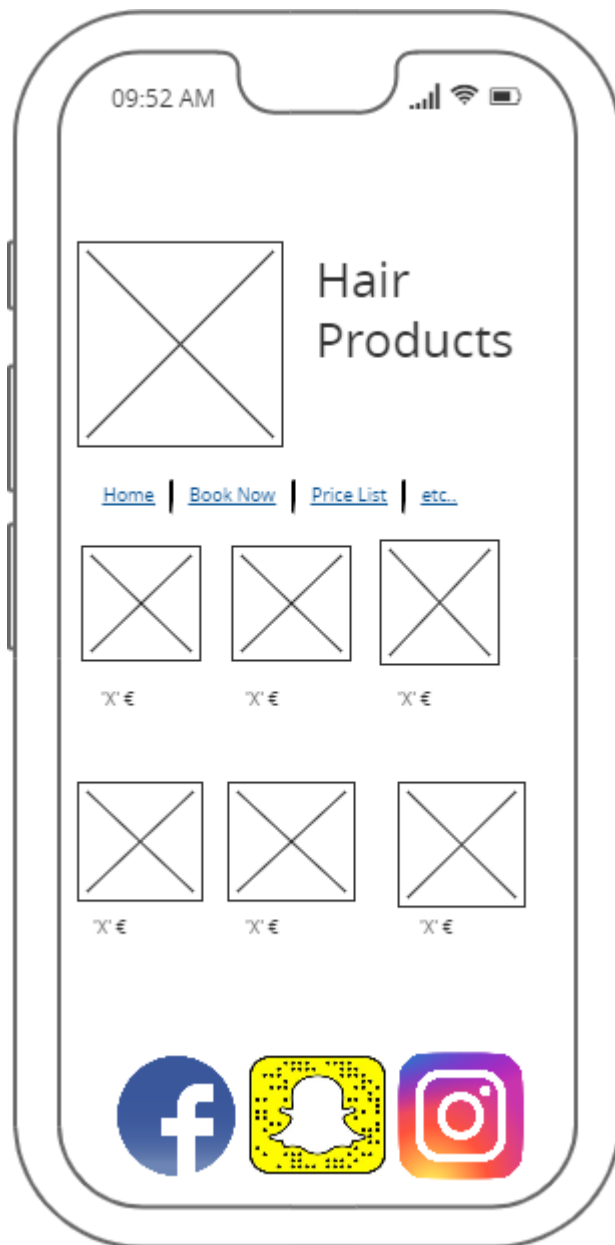
Pay Now Page

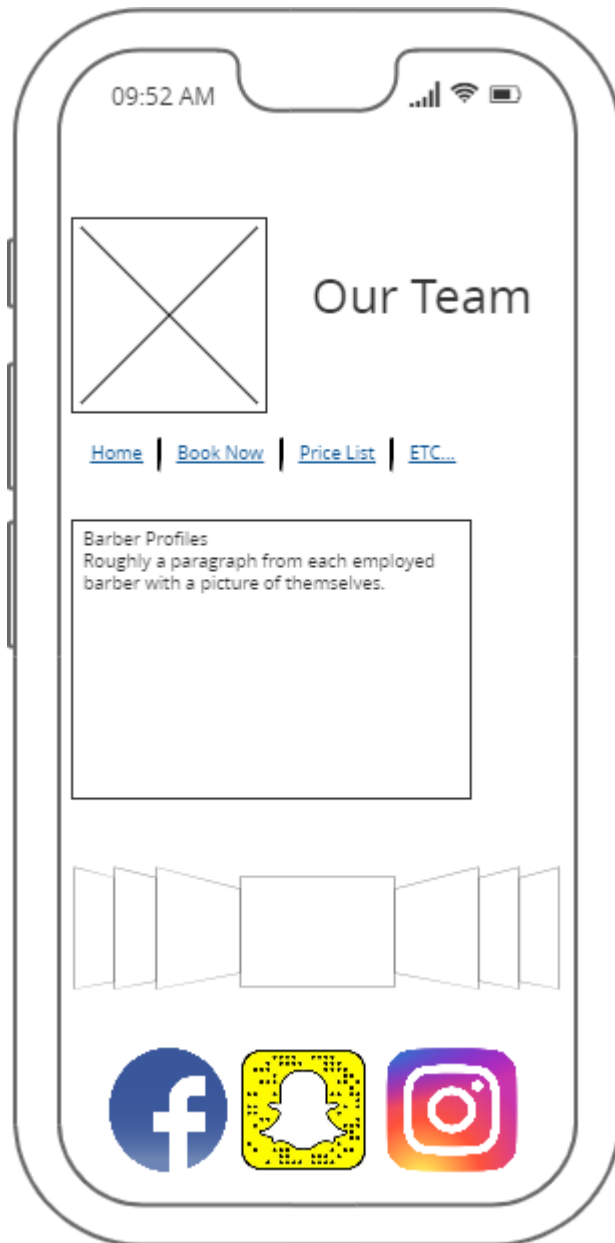**Pricing Page**

Opening Hours & Location Page

Contact Us Page

Products Page

Our Team & Gallery Page

News Page

Prototype Version 1 Conclusion:

This prototype was developed based on the results/requirements gathered from the three elicitation techniques. These techniques included a survey, brainstorm and four interviews, which were conducted with a variety of key stakeholders. This prototype will be used during the requirements workshop. Stakeholders will analyse, discuss and alter the current prototype to meet their needs. After the requirements workshop has been completed the design and features of the prototype will be altered to meet stakeholder's desires.

After analysing the results of my survey, it was clear that several pages must be included on the mobile application. 94% of respondents chose to have both a price list and booking system page. 78% of respondents requested that the social media pages be linked to the application. These results and facts contributed to the overall design and the incorporation of several features in the first prototype of the application.

The first prototype of the new Him Barbershop mobile application consists of 9 pages not including the initial start-up screen, register and login pages.

3.1.5. Requirements Workshop:

The requirements workshop took place with the following key stakeholders; the business owner, one current customer, one staff member and one potential customer. The first prototype was presented to the stakeholders. After reviewing each individual page of the first prototype the stakeholders made several comments and recommendations to the business analyst. The comments and recommendations will be reviewed and implemented to the second prototype.

Overall the stakeholders were happy with the first prototype presented to them each stakeholder had some small recommendations they would like to see implemented. The current customer recommended implementing a 'My Account' page like many other apps were users could manage their profile. He felt as if things such as Account Details, Username, Password, Appointments notifications and reminders would be ideal to incorporate on the 'My Account' page. Users will receive all reminders and notifications through the 'My Account' page. The customer felt as if Loyalty points would also be great to have implemented in this section as it would allow customers keep track of points earned.
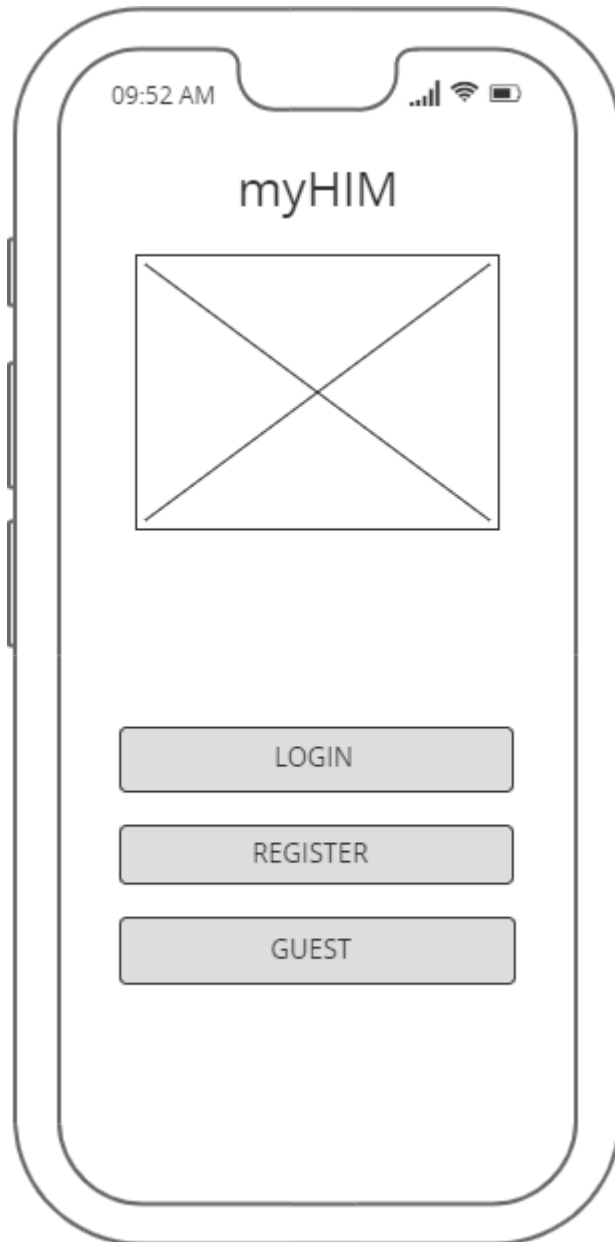
The potential customer felt that having the social media linked images at the bottom of each page was unnecessary and very repetitive. He felt if it was implemented only at the bottom of the Homepage, the news page and the Contact Us page that this would be sufficient.

The staff member felt as if the contact us page would be more effective if it had a forum as well as the general contact information. This forum would allow customers enter in any

queries/questions they have and would ask them to input their personal information and send an email to the barber shops email accessed by the owner. The staff member also thought implementing a video to the homepage would be useful. He recommended adding a video of an outside to inside look of the barbershop followed by a brief video of a certain barber at work.

The business owner highlighted something very important which was to implement an independent terms and conditions page rather than the little check box on the registration page. This would ensure the storage of data is adhering to all GDPR regulations. The business owner also selected the official name of the application 'myHIM' and felt as if the name of the application should appear at the top of each page.

The stakeholders were very positive about the first prototype presented to them they felt as if there were some design and layout issue that needed to be addressed. One of these was they felt as if a logo was necessary in the top left corner on the register page like every other page. The stakeholders also stated that if a user and/or administrator entered the wrong password that an error message with instructions should appear. If the user enters the wrong password 3 times in succession it will result in their account being locked for 1 hour. They also suggested to add some images to the homepage and the news page rather than just large volumes of text. They recommended implementing a button at the top right corner of every page other than the start-up screen, login, register and my account pages stating, 'My Account'. Other than some design and layout issues there was not any drastic changes to be implemented to prototype two. The stakeholders seemed very impressed with the range of features which will be available.

Prototype Version 2:

Start Up Screen

Login Screen

Register Page

Home Page

Bookings

Inside the phone mockup:

09:52 AM

myHIM

My Account

Book Now

Home | Book Now | Price List | ETC.....

Select Barber: [ ]

Time & Date: [ ] [/ /] 📅

Text Area:
- Special Arrangements.
- Hair Products Ordered for instore collection.
- Childrens Haircut.

etc......

Click To Confirm Booking [ ]

Pay Now

myHIM My Account

Pay Now

Home | Book Now | Price List | ETC.....

Name on Card

Card Number

Expiration Date / /

Security Code

Click to Confirm Payment

Prices
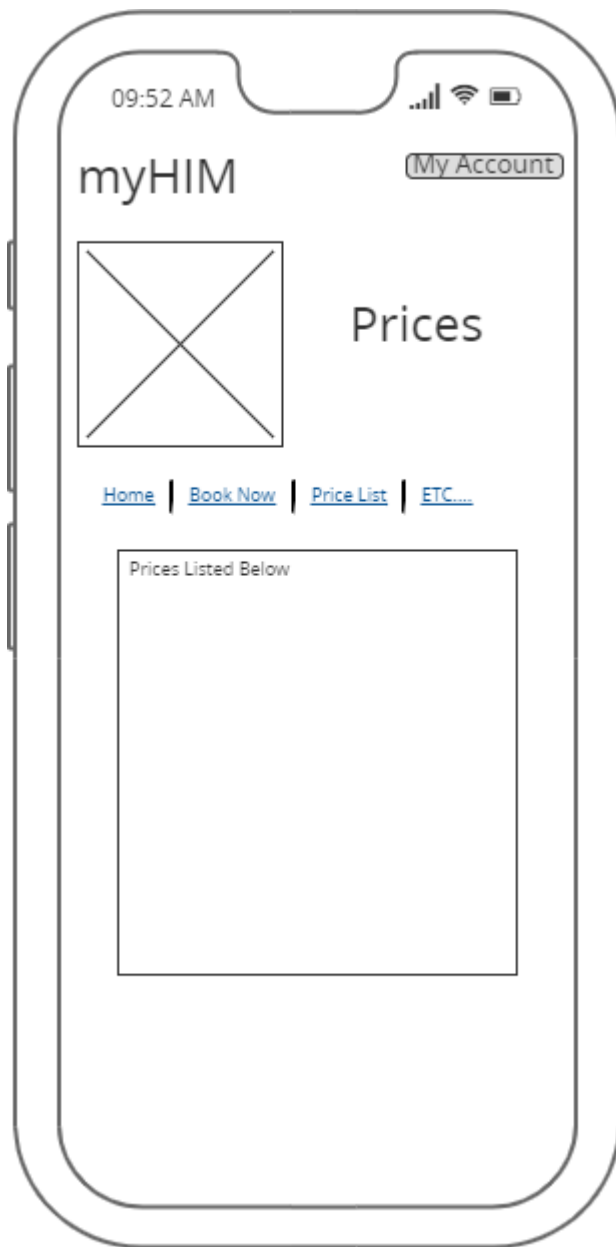
Opening Hours & Location

Contact Us

Products

myHIM

My Account

Hair
Products

Home | Book Now | Price List | etc..

'X' €   'X' €   'X' €

'X' €   'X' €   'X' €
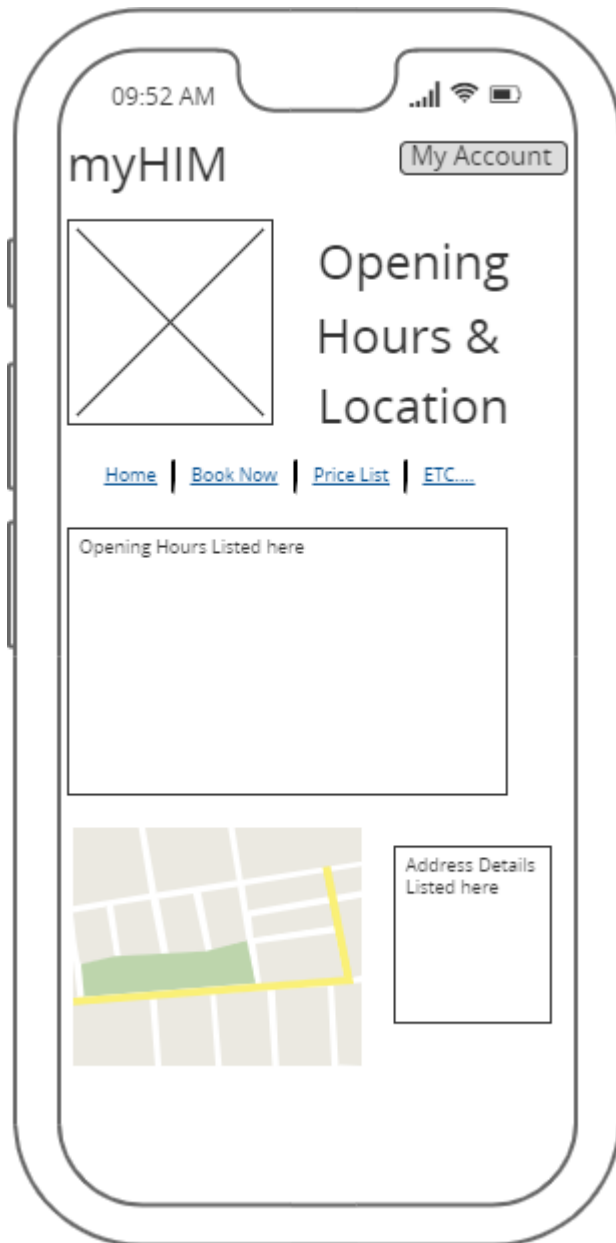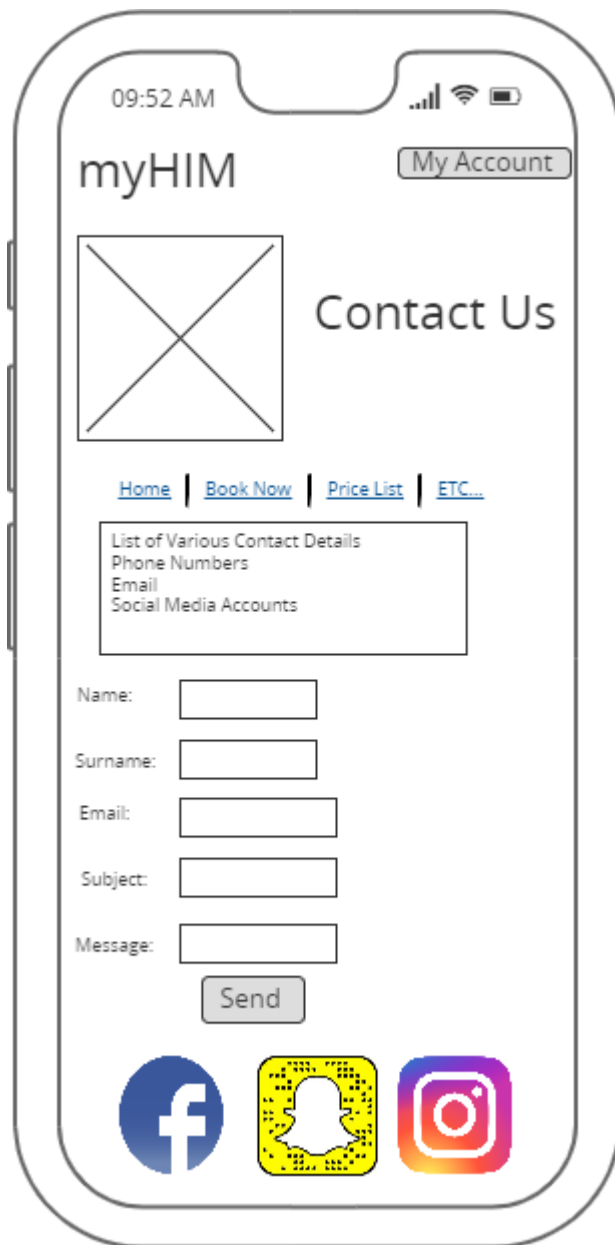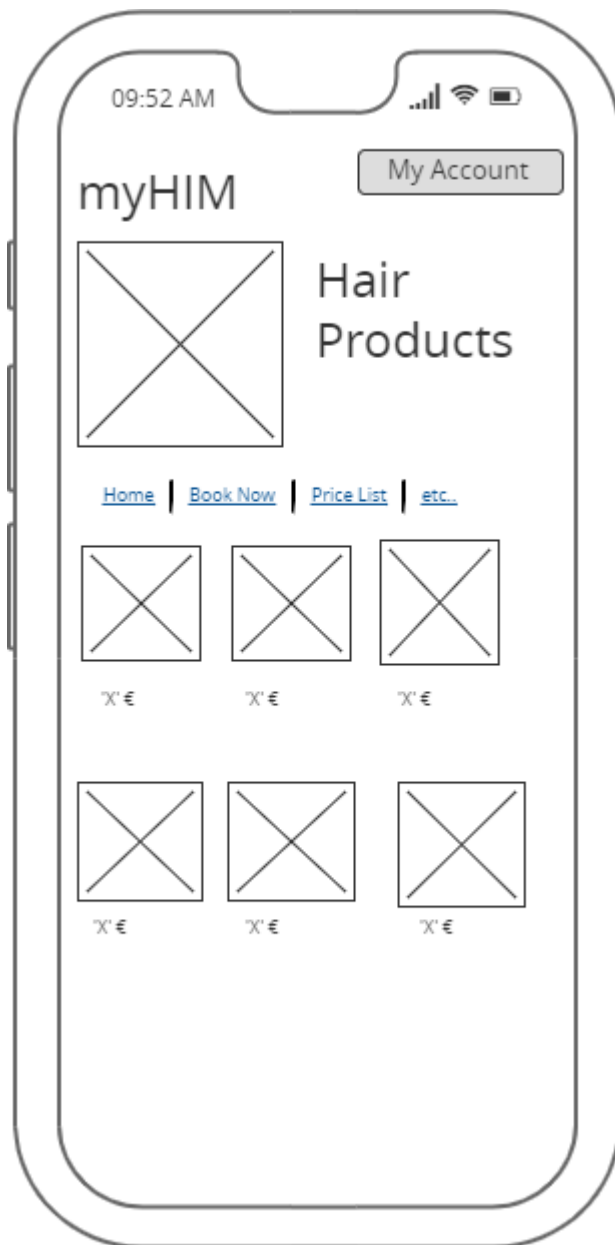
Our Team & Gallery

News
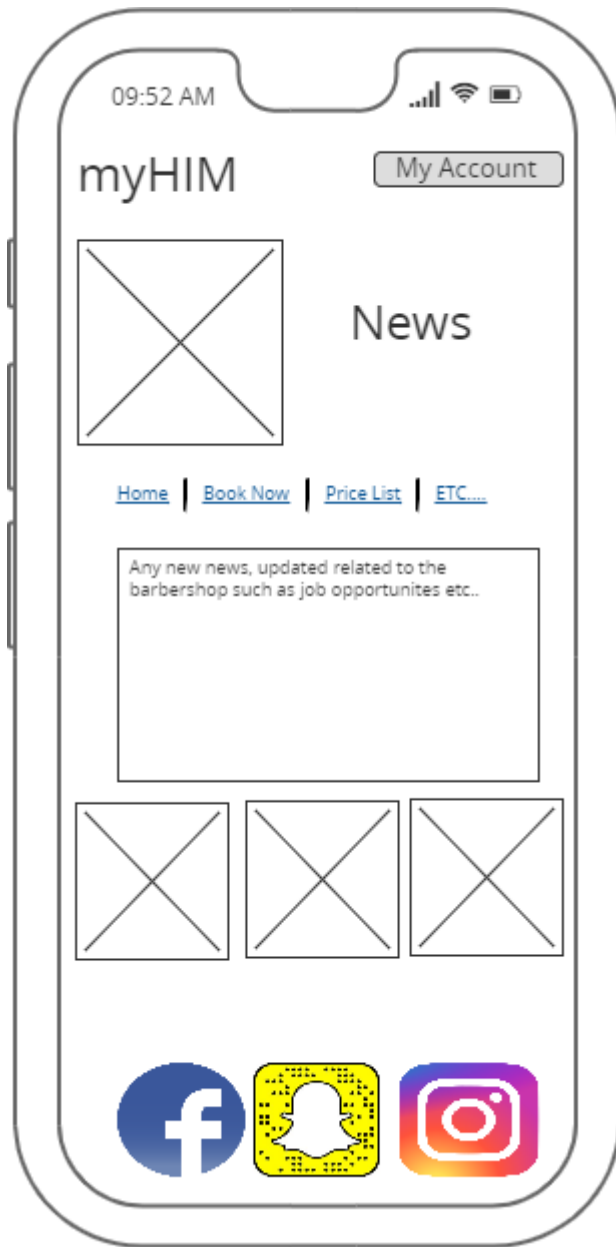
My Account
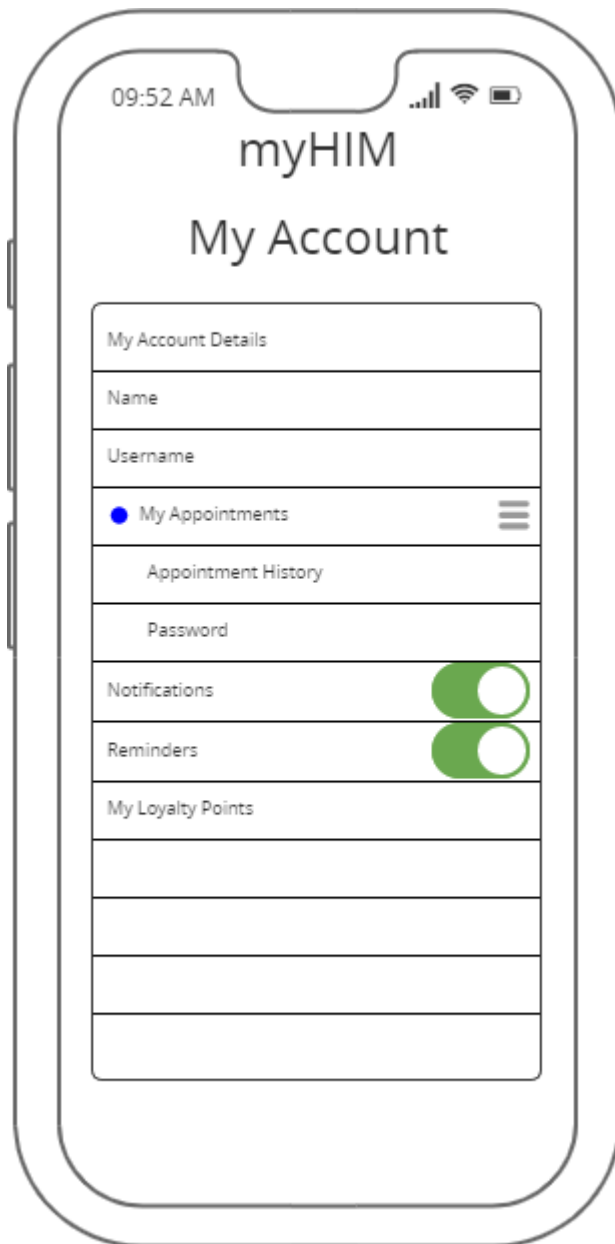
Terms & Conditions Page
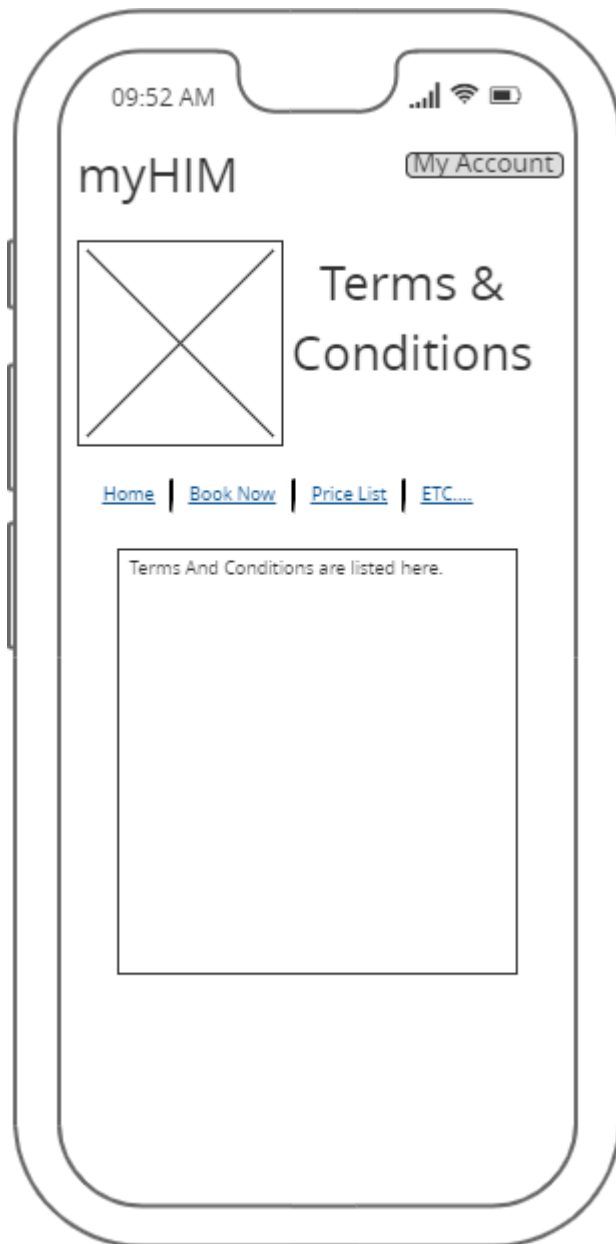
Prototype Version 2 Conclusion:

After conducting the requirements workshop the second prototype was then developed. There were several small changes implemented including the addition of two new pages. These two new pages include the My Account and Terms & Conditions pages. Each page of the application except for the start-up screen, login and register page will include a button in the top right corner labelled 'My Account'.

The Home page has some slight changes including the addition of more media features including images and videos. The news page also has seen an increase in media compared to prototype one.

The logo and application name 'myHIM' will feature on each page of the mobile application. The application name will be a clickable link which will return users back to the homepage like the logo. The social media links have also been removed from the bottom of each page and will now only feature on the homepage, contact us page and the news page.

The new My Account page will include all the registered user's information, this will include name, username, password, 'my appointments', appointment history, notifications, reminders and loyalty points. The new Terms & Conditions page contains a large volume of text with minimal media.

The contact us page now includes a forum which was previously not implemented in prototype one. This forum requires text input and allows users to send questions/queries directly to the business email from the forum with the click of a button.

The booking and products pages received very positive feedback during the requirements workshop. Stakeholders were very impressed with the overall layout and design and didn't make any individual changes to either of the pages.

3.1.6. Interface Analysis:
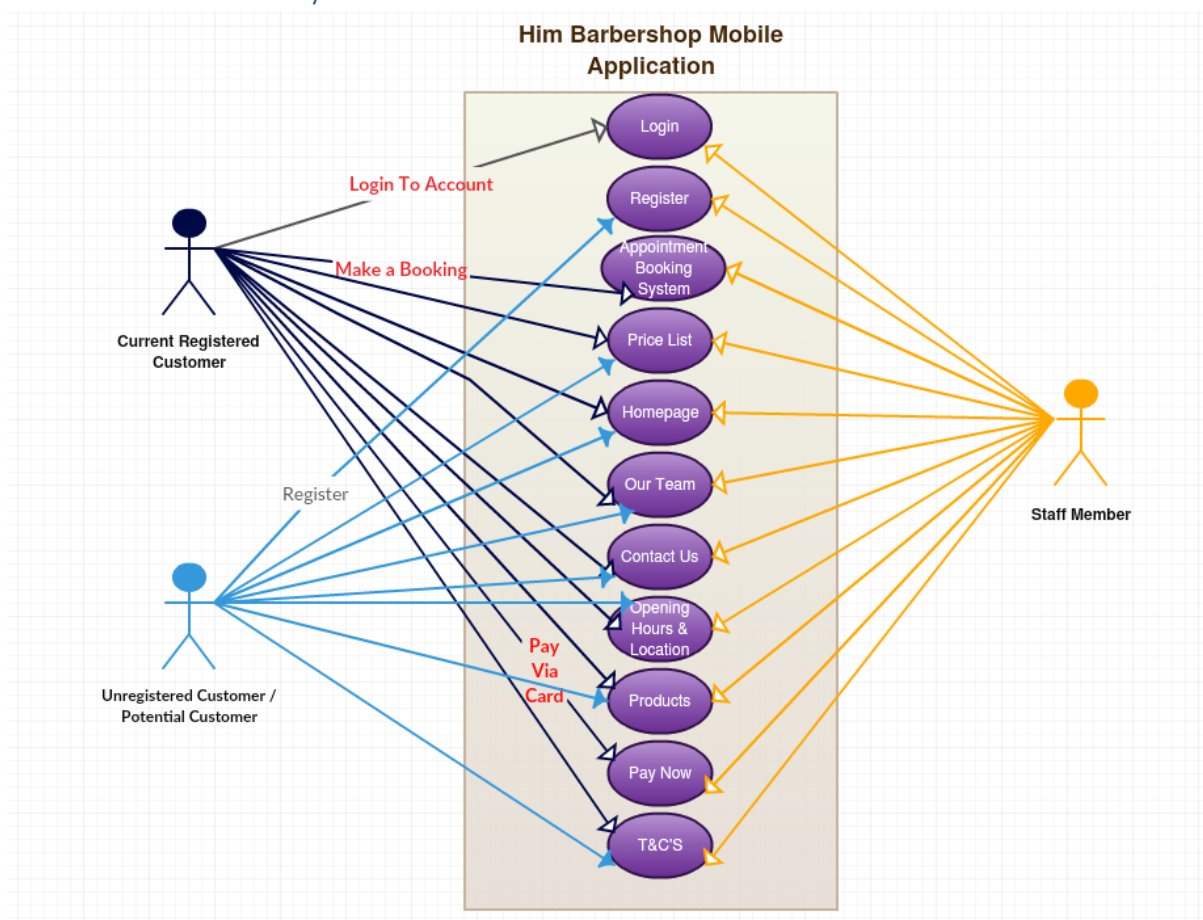
myHIM UML Use Case Diagram Conclusion:

This use case diagram represents visually the interaction between users/stakeholders and the mobile application. There are three actors present around the diagram. The use cases are present in the diagram in the oval shape and each are labelled accordingly. The arrows between the use cases and the actors represent how the stakeholder/user interacts with the use case. For example, the current customer interacts or his relationship with the Appointment Booking System is to make a future booking only. The customer is not authorised to make any changes or view other customers bookings. The staff member on the other hand can view all customer bookings and view and edit information related to the Appointment Booking System. The use case diagram will help ensure no stakeholders/users can access features in which they are not authorised, by doing this it will ensure the application is safe.

The user can be either a registered customer/user or an unregistered/potential customer/user. The unregistered/potential customer/user has the access to register for the app once they provide their personal details. Whilst the user is still unregistered they will only have access to certain features. A registered user will have access to all features on the application. Example, an unregistered user will not have any interaction with the appointment booking system as this feature is only available to registered users.

4.List of Requirements Gathered

R.1. App should include a Booking System page. (Brainstorming)

R.2. App should include a price list page. (Brainstorming)

R.3.App should include opening hours. (Brainstorming)

R.4.App should include a gallery. (Brainstorming)

R.5.App should include a link to social media pages. (Brainstorming)

R.6.App should include Home page. (Brainstorming)

R.7.App should include customer logins. (Brainstorming & Interview)

R.8.App should include a logo on every page. (Brainstorming)

R.9.App should be free to download. (Brainstorming)

R.10.Error messages with instructions should appear on the application when necessary. (Brainstorming)

R.11.Local Weather Forecast and time should feature on the application. (Brainstorming)

R.12.Users should be able to pay through the app via card. (Brainstorming & Survey & Interview)

R.13.Users should remain logged in. (Brainstorming)

R.14.Application should have notifications and reminders. (Brainstorming)

R.15.App should have a simple but effective GUI. (Brainstorming)

R.16.App font type and size to remain the same as current website. (Survey)

R.17.App should include the following Social Media Pages – Facebook, Instagram and Snapchat. (Survey)

R.18. App should include regular competitions and giveaways. (Survey)

R.19.App should operate both on IOS and Android. (Survey)

R.20.App should include hair products page. (Interview)

R.21. App should include an appointment/booking feature. (Survey & Interview)

R.22.App should include a loyalty rewards/points system. (Survey & Interview)

R.23.App should include the location of the barber shop through a google map. (Interviews)

R.24.App should include news and updates. (Interview)

R.25.App should include an about us section. (Interview)

R.26.App should include an employee/barber profile. (Interview)

R.27.App should include an image gallery. (Interview)

R.28.App should include a contact us page. (Interview & Survey)

R.29. App should include a real time information section estimating the wait time for in store walk ins. (Interview & Survey)

R.30. App should send a notification to the barbershop of appointments being booked. (Interview)

R.31.App should send user confirmation of their booking via email or SMS. (Interview)

R.32.App should store all information of appointments on a 3rd Party SQL Database. (Interview)

R.33.App should allow users input their name, email, phone number, appointment type, select a time and barber for the booking/appointment feature. (Interview)

R.34. App should include a Terms & Conditions Section/Page with updated information about GDPR. (Interview & Requirements Workshop)

R.35. Users passwords for login must include one upper case letter, one number and be at least 6 characters long. (Interview)

R.36. App should include administrator login. (Interview)

R.37. App should include a 'My Account' page. (Requirements Workshop)

R.38. App should include a contact forum on the contact us page. (Requirements Workshop)

R.39. App should include the App name at the top of each page and when clicked upon bring the user back to the homepage. (Requirements Workshop & Brainstorming)

R.40. A My Account button at the top of each page bar the start-up screen, login, register and my account pages. (Requirements Workshop)

R.41. Logo to appear on the top left hand corner of the register page like every other page on the app. (Requirements Workshop)

R.42. App should include a logo on each page and when clicked upon brings the user back to the homepage. (Requirements Workshop)

R.43. Registered users should only have access to the booking / appointment system/page on the app.

R.44. The app should include a video on the homepage. (Requirements Workshop)

R.45. The app should include a calendar widget. (Survey)

R.46. If a user and/or admin enters he wrong password an error message should appear. (Requirements Workshop)

R.47. If the user enters the wrong password three times in succession it will result in their account being locked for one hour. (Requirements Workshop)

4.1 MOSCOW Analysis

Must	Should	Could	Wont
R1	R14	R18	R11
R2	R16	R22	R25
R3	R44	R29	
R4	R13	R45	
R5			
R6			
R7			
R8			
R9			
R10			
R12			
R15			
R17			
R19			
R20			
R21			
R23			
R43			
R24			
R26			
R27			
R28			
R30			
R31			
R32			
R33			
R34			
R35			
R36			
R37			
R38			
R39			
R40			
R42			
R46			
R47			

User Class 2- Administrator Requirements

1. The administrator should be able to login.
2. The administrator should be able to add, edit and remove all content on the application.

5.IEEE Requirements Specification

5.1. Introduction

5.1.1. Purpose

The IEEE Requirements Specification is being developed for Him Barbershops New Mobile Application. This document will clearly identify both functional and non-functional requirements related to the mobile application. After the completion of this document I will allow my customer review it before sending it on to the chosen developer.

5.1.2. Scope

This mobile application is being developed for several stakeholders who have being involved throughout the project. Him Barbershop currently have a very basic online platform with their current website. This current website lacks any real beneficial features and therefore several stakeholders have identified the need for this unique mobile application. The main aim of this mobile application besides profitability, is to reduce long times in store through the appointment booking system, improve customer satisfaction, maintain current customers and attract new customers.

Members who have created an online profile on the application will have the privileges to book appointments and pay through the application, order and pay for hair products for their next visit in store and earn loyalty points. Visitors/Guests who are visiting the mobile application will not have access to these members features but will have access to a wide range of features such as price list, gallery, employee profiles and the news & competitions page. They will not be able to use member privileges until they register their details. These are just some of the key benefits related with the development of the new mobile application.

5.1.3. Definitions, Acronyms and Abbreviations

Stakeholder: An individual who is involved with the app, whether this is through interaction, development or management.

User: General user of the app, who can register, login and utilise the features on the app.

Administrator: Person who has a unique login and is responsible for making certain changes to the Application.

5.2. Functional Requirements

5.2.1. User Class One – User

Functional Requirement 1.1

ID Code: FR1	Title: myHIM Logo Link	Priority: Must Have / High
Description: The Him Barbershop logo will appear on each page of the mobile application. When the logo is clicked upon it should bring the user back to the Home Page.		
Reasoning: Simple and effective GUI. This was requested by the business owner during the requirements elicitation stage.		
Location: Every Page		

Functional Requirement 1.2

ID Code: FR 2	Title: Register Link	Priority: Must Have / High
Description: The start-up screen when the application is initially opened will provide users with 3 options. Login, Register or continue as a guest. When the register button is clicked users should be brought to the registration page to make a profile.		
Reasoning: This register button is there to attract both current and new customers to create a profile and begin to start booking appointment and purchasing hair products through the application. Requested by a customer during the requirements elicitation stage.		
Location: App Start Up Screen/Page.		

Functional Requirement 1.3

ID Code: FR3	Title: Booking Page Link	Priority: Must Have / High
Description: The link will be displayed on each page on the navigation panel. When clicked upon it will bring registered users only to the bookings page where they have access to booking future appointments.		
Reasoning: This link is designed to attract customers to the bookings page and pre-book future appointments. This feature was requested by both a staff member and customer.		
Location: Navigation Panel		

Functional Requirement 1.4

ID Code: FR4	Title: Social Media Pages Linked	Priority: Must Have / High
Description: All business social media accounts should be linked to the mobile application.		
Reasoning: This will allow all users quickly access all Him barbershop social media account, these links will be displayed as clickable images/logos. This was requested by a current customer and staff member during elicitation techniques.		
Location: Home Page, Contact Us Page, News Page.		

Functional Requirement 1.5

ID Code: FR5	Title: Google Maps Location/ Widget	Priority: Must Have / High
Description: Implementing a google map/ widget location for the barbershop which would provide users with an exact location.		
Reasoning: This will allow potential/new unfamiliar customers locate the barbershop very easily. This was requested by a potential customer during the requirements elicitation stage of the project.		
Location: Opening Hours & Location Page		

Functional Requirement 1.6

ID Code: FR6	Title: Contact Us Page Forum	Priority: Must Have / High
Description: This feature will allow users send an email directly to the Him Barbershop email address from the forum through the click of a button. It will require the user to enter their name, email address and their message, once the send button is sent their message is sent directly to the business email.		
Reasoning: This was requested by a current staff member who felt this feature would be extremely beneficial and easy to use.		
Location: Contact Us Page		

Functional Requirement 1.7

ID Code: FR7	Title: Gallery/Slideshow	Priority: Must Have / High
Description: The slideshow is present to showcase the standard of quality in the barbershop. This slideshow will consist of several images of haircuts carried out instore by different staff members.		
Reasoning: This was requested by a current staff member and potential customer during the requirements elicitation stage of the project.		
Location: Our Team & Gallery		

Functional Requirement 1.8

ID Code: FR8	Title: Booking System / Appointments	Priority: Must Have / High
Description: This system will allow registered customers/users book and pay for a future appointment which will help reduce and/or eliminate the long wait times often experienced. It will allow them to choose a specific date, time and barber for their appointment.		
Reasoning: The long wait times in store has resulted in loss of customers and current customer dissatisfaction. This has not gone un-noticed as several customers have vocalised this to the staff and owner. There was a big demand for this booking system throughout the requirements elicitation stage of the project.		
Location: Bookings		

Functional Requirement 1.9

ID Code: FR9	Title: Homepage Video	Priority: Should Have / Medium
Description: This video will be embedded at the bottom of the Home Page. This video will be accompanied by two images either side of the video. The video will consist of an outside to inside view of the barbershop and following this a video of a certain barber at work.		
Reasoning: A staff member requested this during the requirements workshop.		
Location: Homepage		

Functional Requirement 1.10

ID Code: FR10	Title: Pay Now Link	Priority: Must Have / High
Description: When the user clicks on the pay now link it should bring them to the Pay Now page, where they can pay for their future appointments.		
Reasoning: High demand for the possibility to pay through the app/card payment during the requirements elicitation stage of the project. (Survey)		
Location: Navigation Panel		

Functional Requirement 1.11

ID Code: FR 11	Title: Login Link	Priority: Must Have / High
Description: The start-up screen when the application is initially opened will provide users with 3 options. Login, Register or continue as a guest. When the login button is clicked users should be brought to the Login Page to login to their account.		
Reasoning: The login button is there so that current registered customers can login to their personal account. Requested by a customer during the requirements elicitation stage.		
Location: App Start-up Screen/Page.		

Functional Requirement 1.12

ID Code: FR12	Title: Guest Link	Priority: Must Have / High
Description: The start-up screen when the application is initially opened will provide users with 3 options. Login, Register or continue as a guest. When the guest button is clicked users will be brought to the home page. Guests will have limited access to features on the application.		
Reasoning: The guest button is there to allow unregistered customers or potential customers access to the mobile application. Although they will not have access to all features it will allow them access to various other pages such as the opening hours and location page. Requested by a potential customer during the requirements elicitation stage.		
Location: App Start-up Screen/Page.		

Functional Requirement 1.13

ID Code: FR13	Title: Estimated Walk in Times	Priority: Could Have / Low
Description: A new page on the application giving real time information/estimated time of the current wait time in store for walk ins.		
Reasoning: This was something which was requested in the survey in a field which was marked 'other' and was also mentioned in the interview conducted with a former customer. This could be something which could be implemented in the future.		
Location: New page on the application.		

Functional Requirement 1.14

ID Code: FR14	Title: myHIM Text Link	Priority: Must Have / High
Description: The text line 'myHIM' will appear at the top of each page on the mobile application, when clicked upon this will bring users back to the Home Page.		
Reasoning: This was requested by the business owner during the requirements elicitation stage. He feels as if this will help implement a simple but effective GUI.		
Location: At the Top of Every Page on the app.		

Functional Requirement 1.15

ID Code: FR15	Title: My Account Link/Button	Priority: Must Have / High
Description: The My account button will be present at the top of each page on the application bar the initial start-up screen, login and register. When clicked upon this will bring users to the 'my account page' where they can access all details related to their personal account.		
Reasoning: This was recommended by the stakeholders during the requirements workshop after reviewing the first prototype.		
Location: This will appear on each page of the application excluding the initial start-up screen, login and register pages. It will be at the top right hand corner of each page.		

Functional Requirement 1.16

ID Code: FR16	Title: Remain Logged In	Priority: Should Have / Medium
Description: Once the customer has initially logged in to their individual account, they will not have to continuously log in.		
Reasoning: This was requested by a current customer during the requirements elicitation stage. He feels as if this will help implement a simple but effective GUI.		
Location: Once the user has logged in to the app.		

Functional Requirement 1.17

ID Code: FR17	Title: Loyalty Points	Priority: Could Have / Low
Description: When a registered customer books an appointment through the app they receive redeemable loyalty points.		
Reasoning: Requested by a current customer during the requirements elicitation stage of the project.		
Location: My Account Page / New page on application.		

Functional Requirements 1.18

ID Code: FR18	Title: Pay Now Function	Priority: Must Have / High
Description: When a registered customer books an appointment through the app they will receive an email containing appointment reference number. This number will be input on the pay now page to pre pay for appointments.		
Reasoning: High demand for the possibility to pay through the app via card for appointments.		
Location: Pay Now Page		

Functional Requirements 1.19

ID Code: FR19	Title: Calendar Widget	Priority: Could Have / Low
Description: A calendar widget which indicates the date and allows customers view future and past dates.		
Reasoning: Was requested as part of an 'other' response to a question during the survey.		
Location: Homepage		

Functional Requirements 1.20

ID Code: FR20	Title: Competitions & Giveaways	Priority: Could Have / Low
Description: Include competitions and Giveaways on the app.		
Reasoning: This was highlighted in the survey during the requirements elicitations stage of the project.		
Location: News Page / New Application Page		

Functional Requirement 1.21

ID Code: FR21	Title: Barbershop Notification	Priority: Must Have / High
Description: Once a booking has been made through the app, the barbershop should receive a notification of the booking.		
Reasoning: This was recommended during the requirements elicitation stage of the project. (Interview)		
Location: Booking Page		

Functional Requirement 1.22

ID Code: FR22	Title: User Appointment / Booking Confirmation	Priority: Must Have / High
Description: Once the user has made a booking they should receive a confirmation of their booking via email/SMS.		
Reasoning: This was recommended during the requirements elicitation stage of the project. (Interview)		
Location: Bookings Page		

Functional Requirement 1.23

ID Code: FR23	Title: Employee/ barber profile	Priority: Must Have / High
Description: The user should have access to the barber profiles to get a personal insight to each barber and view a haircut they performed in the past.		
Reasoning: This was requested during the requirements elicitation stage of the project. (Interview)		
Location: Our Team & Gallery Page		

Functional Requirement 1.24

ID Code: FR24	Title: Price List Page / Link	Priority: Must Have / High
Description: The app should include a price list page with the link present on the navigation panel. When the Price List page link is clicked by the user they should be brought to the price list page.		
Reasoning: This was requested during the brainstorming session and also the survey and interviews. There was a big demand for this page to feature on the application. The link will be displayed on each page on the navigation panel. When clicked upon it will bring users to the price list page where they can view all prices.		
Location: Navigation Panel		

Functional Requirement 1.25

ID Code: FR25	Title: Home Page/ Link	Priority: Must Have / High
Description: When the user clicks the Home Page link in the navigation panel it should bring users to the app Homepage.		
Reasoning: The homepage was requested during the brainstorming session.		
Location: Navigation Panel		

Functional Requirements 1.26

ID Code: FR26	Title: Products Page	Priority: Must Have / High
Description: The Products Page link will appear on the Navigation panel like all other links to pages on the app. When the user clicks the Products link it will bring users to the Products Page where they can view available products.		
Reasoning: The products page was requested during both an interview and survey.		
Location: Navigation Panel		

Functional Requirements 1.27

ID Code: FR27	Title: Contact Us Page / Link	Priority: Must Have / High
Description: When the user clicks the Contact us page/ link in the navigation panel it should bring users to the contact us page.		
Reasoning: The Contact Us Page / Link was requested during the survey and interview.		
Location: Navigation Panel		

Functional Requirements 1.28

ID Code: FR28	**Title:** My Account Page	**Priority:** Must Have / High
Description: The 'My Account' page will include the user's personal information. When the user clicks the 'My Account' button they will be directed to the 'My Account' page.		
Reasoning: This was recommended during the requirements workshop.		

Functional Requirements 1.29

ID Code: FR29	**Title:** News Page/Link	**Priority:** Must Have / High
Description: The news page/link will feature on the navigation panel and when clicked upon it will direct users to the news page.		
Reasoning: This was recommended during an interview.		
Location: Navigation Panel		

Functional Requirement 1.30

ID Code: FR30	**Title:** Logo Location	**Priority:** Must Have / High
Description: The logo will appear in the top left hand corner of the register page and every other page on the app.		
Reasoning: This was recommended during the requirements workshop.		

Functional Requirement 1.31

ID Code: FR31	**Title:** Notification and Reminders	**Priority:** Should / Medium
Description: Users will receive notifications and reminders through the application and these will be accessible through the 'my account' page.		
Reasoning: This was recommended during the brainstorming session.		
Location: My Account		

5.2.2. User Class Two – Administrator

ID Code: FR32	**Title:** Administrator Login	**Priority:** Must Have/ High
Description: The administrator should be able to edit, add, remove content on the app once they have logged in.		
Reasoning: Once the administrator has successfully logged in to the application they will have the authorization to change content on the app. Administrator must login to have this authorization. This was recommended during the requirement workshop.		

ID Code: FR33	Title: Price List	Priority: Must Have / High
Description: The administrator should be able to add, edit and/or remove content on the price list page		
Reasoning: The administrator can manually update all details and content regarding the price list page. This was recommended during the requirements workshop.		

ID Code: FR34	Title: Our Team & Gallery	Priority: Must Have / High
Outcome: The Admin can update, edit or remove content from the Our Team & Gallery Page.		

ID Code: FR35	Title: Products Page	Priority : Must Have / High
Description: The admin can update, edit or remove any content on the products page.		

ID Code: FR 36	Title: News Page	Priority: Must Have / High
Outcome: Admin has relevant permissions to implement modifications to the news page.		

ID Code: FR 37	Title: Bookings Page	Priority : Must Have / High
Outcome: Admin is permitted to implement changes to the bookings page. The admin can make any modifications he feels are necessary these include things such as time slots or prices. The business owner may change appointments if the customer needs to reschedule.		

ID Code: FR38	Title: Opening Hours and Location	Priority: Must Have / High
Outcome: Admin is permitted to make any modifications to the opening hours and location page. For Example, the admin may need to change opening hours over the holiday periods.		

5.3. Non-Functional Requirements

5.3.1Performance Requirements

ID Code: Non Functional Requirement 1	Title: Contact Forum
Justification: When a user sends a message from the contact form they should be notified within if their message was sent successfully. An automated email will be sent to their email address they entered in their forum confirming the message was received. An error message should appear on screen if sending was unsuccessful. The contact forum must be able to send numerous messages at once.	

ID Code: Non Functional Requirement 2	Title: Bookings
Justification: When a user clicks to confirm a booking, they should receive a confirmation email/SMS with all booking details.	

ID Code: Non Functional Requirement 3	Title: Error Messages
Justification: The app should display error messages with appropriate instructions.	

ID Code: Non Functional Requirement 4	Title: User Login
Justification: When the user enters their login details (username and password) and presses the login button they should have access to their account. If the username and/or password is incorrect and error message should appear.	

ID Code: Non Functional Requirement 5	Title: Administrator Login
Justification: When an administrator attempts to login if the username and password is correct they should have access to their account and be able to begin making changes immediately. If the login details are incorrect an error message should appear with instructions.	

ID Code: Non Functional Requirement 6	Title: GUI – Navigation Panel
Justification: The application will include a navigation panel which will contain links to all application pages such as Home Page, Bookings Page etc…	

5.3.2. Availability Requirements

ID Code: Non Functional Requirement 7	Title: Booking System
Justification: The booking system will be available for access by registered customer three hundred and sixty-five days per year. Although the barbershop will not be open every day of the year customers will be able to access the booking system and book future appointments.	

ID Code: Non Functional Requirement 8	Title: App should be Free
Justification: The app should be available to download free of charge. This was suggested by a staff member in the requirements elicitation stage of the project.	

ID Code: Non Functional Requirement 9	Title: Administrator Login
Justification: Administrators will be able to login to the myHIM mobile application to make modifications all year. The business owner has the capability to add or remove any administrator and adjust permissions where he feels necessary.	

ID Code: Non Functional Requirement 10	Title: Contact Forum
Justification: The contact forum located on the contact us page should be accessible year-round. The customer's response time may vary depending on the time/day/period he sends his message, but the message will be send immediately.	

ID Code: Non Functional Requirement 11	Title: Registered Users Privileges
Justification: Registered users only have access to the bookings page.	

5.3.3. Security Requirements

ID Code: Non Functional Requirement 12	Title: Password Constraints
Justification: Users passwords must contain one upper case letter, one number and be a minimum of 6 characters long.	

ID Code: Non Functional Requirement 13	Title: Information stored on a 3rd Party SQL Database
Justification: All appointment and user information will be stored on a third party SQL Database.	

ID Code: Non Functional Requirement 14	Title: Account Lock
Justification: If the user enters the wrong password three times in succession it will result in their account being locked for one hour.	

ID Code: Non Functional Requirement 15	Title: Administrator Login
Justification: Usernames and passwords of administrators are controlled by the business owner.	

5.3.4. Usability Requirements

ID Code: Non Functional Requirement 16	Title: Contact Forum
Justification: The contact form on the contact us page should be simple and straight forward to use. The customer is required to input their personal information such as their name and email address. This information must be clearly stated before any message can be sent. This feature will be available to all users. If for any reason a problem occurs, and the message is undelivered and error message must show on screen for the user.	

ID Code: Non Functional Requirement 17	Title: Bookings System
Justification: The bookings system located on the bookings page should be a simple and effective process. The user will be required to select an available barber, date and time for their future appointment. Once all information is input all that is required is a click of a button to confirm the appointment. This feature will only be available to registered app users.	

ID Code: Non Functional Requirement 18	Title: Password Constraints
Justification: The user's password must contain one upper case letter as well as one number and must be at least six characters long.	

5.3.5 Scalability Requirements

ID Code: Non Functional Requirement 19	Title: IOS and Android
Justification: The app should operate on all IOS and Android Devices and Operating Systems.	

6.Evaluation

If I had more to time to work on this project, there are several things in which I would like to do.

Firstly, I would like to create a functional prototype which included all proposed features. I feel this would take the project to that next level.

Secondly, I would like to conduct a document analysis to find relevant information on features in which competitors are offering by reviewing similar documents, apps and platforms.

Finally, I would like to conduct some follow up interviews with the stakeholders. I feel this would allow me to validate requirements in a more effective manner. To validate requirements, I listed requirements which were gathered during the technique with the stakeholder and asked them to confirm these were correct.

Regarding the techniques used I feel as if the most effective techniques used were, Brainstorming, Requirements Workshop, and Interviews. I feel due to the simple factor of personally interacting with stakeholders these were the most effective techniques. These techniques allowed the stakeholders voice their opinions. All stakeholders were encouraged to voice their opinions during the techniques and no ideas were considered incorrect, which resulted in gathering a large volume of requirements during these techniques.

I feel the least effective technique used during the project was the survey, mainly due to the fact of a lack of personal interaction. Stakeholders could choose any answer available from the options without giving it any real thought or discussion with others.

If I was to conduct any different techniques, I would use focus groups as I feel this would allow me gather furthermore valuable requirements.

7.Bibliography

All the references below were accessed, used and documented throughout the duration of the project and the dates indicated below for the Accessed Date is the date in which the Bibliography was fully completed and finalised.

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8.Appendix

8.1. Project Proposal

Objectives

The primary objective of my final year project is to formulate an extremely detailed requirements specification document for a new Him Barbershop App. This should be accomplished by exploiting viewpoints from several stakeholders who are associated with the business. Due to this the project will firstly involve gathering requirements from the Owner, customers amongst other appropriate stakeholders. I will cover features such as the apps design, layout, navigation, page content, required features amongst various other features throughout the requirements elicitation stage of the project.

After I gather all the project requirements from a range of elicitation techniques the will be documented within a highly detailed requirements specification document. As well as this document various other tasks must be completed throughout this project, these include the project proposal, performing the midpoint presentation, submitting the final document, the final presentation and finally displaying the project at the showcase in late May 2018.

The objective of the app is to provide Him Barbershop with an updated online platform and current and potential customers a place to go to explore content related to Him Barbershop. Certain features will be restricted for the use of current customers only such as the appointment schedule and current customer offers. These specific restrictions will be discussed with the related stakeholders before the development of the app.

A secondary objective is to make the app appealing for the image of Him Barbershop in other to market themselves to the public and attract more customers. The businesses ability to attract new customers will become more pronounced once this unique application with images, videos and links to all social media pages. If the first impression of the application can be a positive one, it may encourage new customers to try out the business.

As the project begins to process I will need to maintain a set schedule which is outlined in more detail in the project plan to stay on top of a heavy workload. Attempting to complete various other assignments will therefore impact the time I will be able to delegate to this project. I will need to delegate my time effectively throughout the year and have set myself a target of meeting all deadlines on time and to a high standard throughout the project.

Background

Him Barbershop is located on Saint Mobhi Road, Dublin, Ireland. Since the business opened back in 2014 it has never had a mobile application. The current online website is very basic providing the customers a with a little bit of information about the business such as location, provides links to the social media pages, contact page and several images. I opted for developing a mobile application rather than website as I feel more it will gather more attention as people on the go and at home can benefit from and use the application. I feel as if a mobile application would greatly benefit the business as it would provide some key requirements and it would provide well designed and easy to use navigation panel. I feel as if the website does not reach its full potential as it is very basic and does not really provide customers with much information or functions. Although it may be easy on the eye it tends to jump from section to section without any real structure or purpose.

The thought for the application came from when travelling in the summer I struggled to find a barber capable of meeting my needs and when I came across several social media pages from barbers they would have some images and location details but not much meaningful content and some even had very basic websites. Some pages would have some images but no information on pricing. I decided then to look at my barber's website and I felt as if the current Him Barbershop website was better than those I had experienced but I feel as if it does not reach its full potential.

As a current customer I feel as if the application would greatly benefit the business in many ways I feel as if would allow the business to market its self on several platforms to the public. If the application is a success, I feel as if it would generate a lot of new customers through word of mouth especially. Some barbers in Ireland operate on an appointment basis but it very few if any have their own barber's application. I feel as if the application would help retain new and current customers as they would be feel as part of the organisation through the app and notifications being sent through the application and therefore would be less likely to look elsewhere.

Evaluation

To evaluate this project, I will prepare a requirements specification document which will include the requirements elicitation techniques I will use. These techniques may include brainstorming, surveys, interviews, and requirements workshop. Once all requirements have been documented I will then conduct analysis on the requirements.

By implementing and analysing these techniques it will provide me with a detailed requirements specification document. I am to have my survey questions completed and ready to release in time for my mid-term presentation and to have the majority of the functions for the application gathered after the presentation or after the semester one

exams. I plan to meet with my client regularly to ensure that no requirements have being over looked or left out. I will meet with my project supervisor to discuss the applications content and whether any improvements could be made prior to the project showcase. I hope that not only myself, but my project supervisor and client will be fully satisfied once the project is completed in May 2018.

Project Plan

	ⓘ	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names	22 S
1		📌	Project	180 days	Mon 18/09/1	Fri 25/05/18			
2		📌	Project Pitch	1 day	Mon 02/10/1	Mon 02/10/1			
3		📌	Reflective Journal Sep	1 day	Sat 30/09/17	Sat 30/09/17			
4		📌	Global Supply Chain Management CA 1	11 days	Mon 02/10/17	Mon 16/10/17			
5		📌	Project Proposal	15 days	Mon 09/10/1	Fri 27/10/17			
6		📌	Review Project Proposal	1 day	Fri 27/10/17	Fri 27/10/17			
7		📌	Strategic Management CA	22 days	Sun 01/10/1	Sun 29/10/1			
8		📌	Requirements Spec	20 days	Mon 30/10/1	Fri 24/11/17			
9		📌	Reflective Journal Oct	1 day	Tue 31/10/1	Tue 31/10/1			
10		📌	Global Supply Chain Management CA 2	21 days	Wed 01/11/17	Wed 29/11/17			
11		📌	Requirements Management CA 1	31 days	Mon 25/09/1	Sun 05/11/1			
12		📌	Reflective Journal Nov	1 day	Thu 30/11/1	Thu 30/11/1			
13		📌	Midpoint Presentation	4 days	Mon 04/12/1	Thu 07/12/1			
14		📌	Information Systems Management CA	16 days	Mon 20/11/1	Mon 11/12/1			
15		📌	Reflective Journal Dec	1 day	Wed 20/12/1	Wed 20/12/1			
16		📌	Semester 1 Exams	8 days	Thu 04/01/18	Sat 13/01/18			
17		📌	Reflective Journal Jan	1 day	Wed 31/01/1	Wed 31/01/1			
18		📌	Reflective Journal Feb	1 day	Wed 28/02/1	Wed 28/02/1			
19		📌	Reflective Journal Mar	1 day	Sat 31/03/18	Sat 31/03/18			
20		📌	Reflective Journal April	1 day	Sun 29/04/18	Sun 29/04/18			
21		📌	Showcase Materials	1 day	Mon 30/04/1	Mon 30/04/1			
22		📌	Software & Document Uploaded	1 day	Sat 05/05/18	Sat 05/05/18			
23		📌	Project Presentation	4 days	Wed 23/05/1	Sat 26/05/18			

Basic Gant Chart
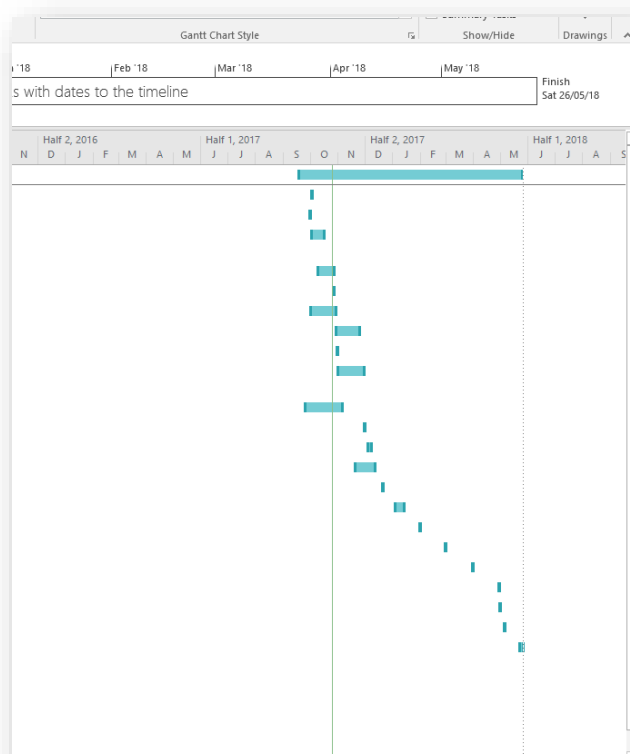
8.2. Monthly Reflective Journals

8.2.1. September

Reflective Journal

Student name: **Dylan Mc Keown**

Programme: **Technology Management**

My Achievements

I started back in college on the 18th of September. Our first day back we were in for Eamon's project class. We were told we should have already thought of some ideas and if not to get thinking before the project pitch in the coming weeks. It looks like this semester is going to be very busy with 5 modules and a project. I had no idea what I wanted to do for my project. I had thought out some ideas sports/fitness related, student related, but I couldn't pinpoint an idea. With the project proposal quickly approaching on the 2nd October I finally thought of an idea over the weekend before the pitch.

My Reflection

Intended Changes

Next month, I will try to focus on a project idea and stay on top of all assignments from other modules as well as the project.

8.2.2. October

Reflective Journal

Student name: **Dylan Mc Keown**

Programme: **Technology Management**

My Achievements

I had decided to do a work place application and I confident it would be approved in the pitch, well how wrong was I. On Monday 2nd October I went into the dragon's den kind of setting with Eugene, Ron and Eugene and my idea was grilled although they liked some aspects of the idea they grilled other parts. I felt as if I went into the pitch not as prepared as I would have liked to and should have been looking back on it now. I understood why they recommended I try adding some features to the idea or think of a new one. I was back to square one thinking of an idea, although I wasn't too disheartened as I knew I had not thrown away any marks since there was no marks awarded for the pitch. I now must meet with one of the three lecturers to try nail down a new project idea. I am to be

assigned my project supervisor in the coming days who I hope to discuss my project with on a regular basis throughout the year. I have been assigned with Ron as a supervisor. I plan to meet up with him sometime in the coming week.

I met with Ron today to discuss some ideas for the project. I told him some ideas which I was thinking about doing and we discussed some possible ideas. I'm finding it very difficult to think of a project idea and feel as if I am behind, but I know once I choose an idea I will get started quickly. Generally, the most time consuming/difficult part I find is choosing an idea and or the beginning of an assignment.

This month has been very busy with assignments due from several modules as well as the project proposal.

Today I have chosen my project idea, I have decided to do an application for my barbershop. The initial requirements are things such as the option to book an appointment through the application. I'm pleased with this and intend to start the project proposal this week and have it uploaded over the weekend. I also plan on meeting Ron once I return from reading week to run my idea by him and gather some feedback and initial thoughts he has.

My Reflection

I'm happy that I have a project idea chosen although I need to meet with Ron. I feel a little more at ease than I did in previous weeks as I was stressing with the fact I still had no idea.

Intended Changes

Next month, I will try to get a start on the next stages and deliverables for the project with the Mid-point presentation approaching I want to be well prepared for this unlike my pitch. I also need stay on top of all assignments from other modules as well as the project.

8.2.3. November

Reflective Journal

Student name: **Dylan Mc Keown**

Programme: **Technology Management**

My Achievements

I've began the initial work of the project. I've started to try identify relevant key stakeholders. This month I intend to really analyse the project idea and begin to start putting my idea in place. I hope to catch up with lost time while trying to think of a suitable idea for the project. I'm very happy to have the idea chosen and am looking forward to beginning to build the project. I began to create the business case, business plan and approach.

Intended Changes

The midpoint presentation Is approaching next month, and I am hoping my presentation will be successful, so I am hoping to be well prepared and not leave it until last minute like previous

presentation. I'm hoping this presentation will be a lot better than my project pitch so therefore I will be well prepared for this one.

8.2.4. December

Reflective Journal

Student name: **Dylan Mc Keown**

Programme: **Technology Management**

Month: **December**

My Achievements

December was a busy month with assignments due in various other modules, so the project was not at the front of my workload. I had planned for this at the beginning of the year. The main work done for the project this month involved preparing for the Mid-Point Presentation on Monday 11th December.

For my Mid-Point Presentation, I conducted a Power Point presentation outlining the business case, business need, the approach and plan I had worked on up to the presentation.

My Reflection

I was happy with how the Mid-Point Presentation went I felt as if I delivered my idea effectively. I felt as if I responded to the questions from the panel in a satisfactory manner. The feedback I received from the panel was also very beneficial moving into the next stages of the project.

Intended Changes

Next month, I expect to be very busy with the upcoming exams. I expect to do very little project-based work as result. I plan to get back working on the project in late January/early February and apply the feedback received from the panel in the presentation to my project.

8.2.5. January

Reflective Journal

Student name: **Dylan Mc Keown**

Programme: **Technology Management**

My Achievements

After a stressful end to December and start to January preparing for exams I did not do much project work. I had accounted for doing less work in late December and early January due to the exams. After the completion of the exams I have once again started working on the project. I have been in contact with several stakeholders and confirmed a date for the Brainstorming session to take place. The brainstorming session is scheduled to take place on Monday the 22nd of January and I'm hoping to gather important feedback and information from key stakeholders.

The brainstorming session took place on the 22nd as scheduled, it was a very successful session. I was extremely happy that all invited stakeholders could make it on the day.

My Reflection

I felt as if January was as successful as it could have been with the slow start due to exams. I am pleased with the work that has been completed. I am more than happy to have all exams completed and to be able now to focus my attention on the project.

I was also extremely happy with my mark from received from the Mid-Point Presentation.

Intended Changes

I hope to meet with my supervisor and get a start with putting together my survey and have it ready for release in February.

8.2.6. February

Reflective Journal

Student name: **Dylan Mc Keown**

Programme: **Technology Management**

My Achievements

I did not start February as I would of like to in terms of project related work, I was side-tracked with work from other modules. Although I did get a draft of some potential interview questions as well as my survey questions.

I was really looking forward to having my survey ready to be released and again gather some vital requirements from this.

I released my survey several days after meeting with my supervisor and receiving his approval. The survey was made available from the 26th of February and advertised online through various social medias such as Facebook and I was hoping to get a large volume of responses.

My Reflection

I was very happy with the requirements gathered from the brainstorming session conducted late in January and had reviewed and documented them all.

Supervisor Meeting

I met with my supervisor this month and brought with me a list of some potential survey and interview questions. He advised me to add and change some parts of both the survey and interview questions. After taking his relevant advice on board I met with him again with my survey questions complete and he was very happy with them. He gave his approval for me to continue with the release of my survey which I was extremely happy about. He advised me to spend some time in the barbershop with hard copies of the survey to gain information from a range of viewpoints.

Intended Changes

I intend to leave the survey available for roughly a month to gather a large volume of responses and I also intend to go in store with some hardcopies next month to get some more responses.

8.2.7. March

Reflective Journal

Student name: **Dylan Mc Keown**

Programme: **Technology Management**

My Achievements

March was a very busy month, I managed to get a lot of project work done. Firstly, the response from my survey was a great success. I got 150+ responses which I was very happy with.

I begin to schedule interviews with several stakeholders, my first interview was scheduled for Monday the 19th of March with a current customer.

The two-week reading week during the month of March was very beneficial as it allowed me catch up with my other assignments due for Business Process Management and Agile Management.

I was looking forward to getting my interviews started and begin gathering some key requirements. After the great response I received from my survey I had a lot of analysing to do.

I conducted my first interview on the 12th of March as scheduled with a current customer. It was a very beneficial experience conducting the interview. I was very grateful that the stakeholder took time to meet and answer my questions.

I am hoping to conduct my next interview on Monday the 19th of March with a current staff member.

I met with the current staff member on the 19th of March to conduct the interview. Like my first interview this interview was a great success.

I conducted an interview with a former customer on the 26th of March. Like previous interview this was very successful.

My Reflection

I was very happy with the work completed this month although I had a two-week reading week I managed to stick to plan and catch up on other work as well as progressing with the project. I was very happy I managed to conduct all three interview this month.

Supervisor Meeting

I met with Ron to discuss some potential interview questions. He was very helpful and steered me in the right direction. He helped in tweaking my questions in a way to ensure I was gathering requirements.

Intended Changes

I hope to be as productive next month as I was this month and to continue work through the project and all other assignments in an effective manner. I'm hoping to conduct a requirements workshop next month with my first prototype.

8.2.8. April

Reflective Journal

Student name: **Dylan Mc Keown**

Programme: **Technology Management**

My Achievements

This month was one of my most stressful and busiest. I had project work to complete as well as assignments to be completed and submitted.

I managed to successfully complete all assignments for Business Process Management and Agile Management and now I must begin studying and focusing on the upcoming exams.

Eamon had sent out an email to bring to our attention an ethics form in which we are required to complete. He scheduled a class to explain what exactly is expected from us regarding this form.

The ethics form was completed and uploaded, it didn't take long to complete which I was happy about.

I could now begin to focus on the upcoming exams and put the project work on hold for the moment.

I conducted my interview with a developer on the 16th of April and it was very beneficial and really contributed to project.

I managed to conduct and complete a requirements workshop on the 23rd of April which I was very happy about.

My Reflection

This month was very successful but a very stressful one. I managed to conduct an interview and a requirements workshop as well as completing both exams. I was not planning on getting as much project based work completed this month as I did due to the upcoming exams.

Supervisor Meeting

I met with Ron and he recommended that I conduct and interview with a developer as it would be very beneficial to myself and the project. He provided me with some information on what sort of questions to ask a developer and discussed things about the new GDPR regulations with will be introduced in the very near future.

Intended Changes

I intend to get the remaining project work completed as soon as possible next month. The deadline for the final document is the 13th of May.

8.2.9. May

Reflective Journal

Student name: **Dylan Mc Keown**

Programme: **Technology Management**

This past month has been quite stressful, with upcoming deadline for the project. I was extremely happy to finally finish my exams which now allowed me to focus my full attention on completing the project. I felt as if the exams had gone well and I was looking forward to getting the results whenever they become available. I still had a bit of work to complete, I had to complete the project poster for the project showcase on the 30th May. As well as that I had to finalize the WordPress website and proof read the final project document. The final upload for this is the 13th of May.

9.Requirements Validation

9.1 Current Customer

Above is a current customer confirming requirements gathered during the brainstorming session.

9.2 Business Owner

Hi ▇▇

Below is a list of the requirements gathered during our brainstorming session on the 22nd of January in relation to the proposed Him Barbershop mobile application.

1. Name options for the application - Him Barbershop App, HimApp, myHIM and myHimbarbershop.
2. Hair Products Order/Buy.
3. Location.
4. Opening Hours.
5. Price List.
6. Logo to be visible on each page and when clicked returns user to the Homepage.
7. Pop Up error messages with instructions.
8. Title app name clickable link to return users to the Homepage.
9. Simple but effective GUI - Navigation Panel at the top of the pages with the links to other pages on the app.
10. Capability to pay by card.
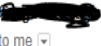
Are you happy to approve the above requirements?

I would just like to thank you for your participation during the brainstorming session and throughout the project.

...

to me ▾

Hi Dylan,

Yes, I am satisfied with the list of requirements above.
If you have any more queries feel free to email me at any time.

Many Thanks

...

Above is the business owner confirming requirements gathered during the brainstorming session.

9.3 Developer

Hi ▬▬▬▬

Below is a list of requirements gathered during our interview on the 9th of April in relation to the proposed Him Barbershop Mobile Application.

1. Barbershop Notification when an appointment is made.
2. User receives confirmation of the booking via Email/SMS.
3. Allow secure and fast payments through the app.
4. Information stored on a 3rd Party SQL Database.
5. Terms & Conditions Page.
6. GPS Location/ Google Maps Widget, Gallery, Appointment Booking Functionality, Login System.
7. Password must contain one upper case letter, one number and be at least 6 characters long.
8. Admin Logins.

Are you happy to approve the above requirements?

Thanks again for taking the time to meet with me in order to conduct this interview.

to me ▾

Hi Dylan

After reviewing the list of requirements gathered from our interview I am more than happy to approve them.
If you have any further questions please feel free to contact me.

Thanks ▬▬▬▬

10.WordPress Link

http://myfinalyearproject.com/