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Pharmamanagement

Technical Report



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

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Executive Summary

With Pharmamangement my goal was to create an extremely user friendly web app which people of any technical ability can use it. As people who may not be familiar with how use computers as much as the younger generation will be ordering prescriptions off my app. I aimed to fix the problems pharmacies are having in their everyday life. The app should be easy to use and a crisp feel to it. The app is constantly looking to grow and add new ideas. I have explored ideas which I can add to Pharmamangement so it can evolve even more. The app will allow a user to order their prescription online before they arrive at the pharmacy. Users will also be able to look up information about the product in which they have been prescribed. The app will show local pharmacies nearby to your location and hopefully the app will be able to check if they have your prescription in stock

1 Introduction

1.1 Background

From the start I was keen to design an app that I was familiar with and that I would know the ins and outs of. As I have worked in a pharmacy for 3 years now I have grasped a very good knowledge of how they work and what they need to grow. I felt as though there are not many apps out there like Pharmamanagement, so I feel there is a niche in the market for an app like this. I felt as if the online resources were there for me to be able to produce a user friendly app for customers.

Giving my history of working in a pharmacy and having access to relevant information for this app I felt as if I was fully educated to tackle the requirements of designing such an app. I was able to ask many questions and consult with pharmacists their opinion on my ideas.

1.2 Aims

One of my main aims with this app is to help improve the prescription process of the pharmacy. Customers have to ring up and order your prescription, which can be messy. The app allows for an easier more efficient approach.

I hope that the app will be user friendly and accessible to all people using it. The app will give customers information about products they have been prescribed via this app. The app may also be able to attract more customers to the pharmacy and increase profits.

There is a possibility that many other pharmacies could start using the app. The app could become a value resource to pharmacies across Ireland.

1.3 Technologies

I decided that for my app I am going to code it in PHP for my app development. I have used PHP before therefore I felt as though it was a good idea to work with

something I am comfortable with. I found it was the best language in which to work with for my project. The framework I used was Bootstrap.

I used cloud 9 and notepad ++ as my text editors as I felt they were the best editors in which to code php.

I Google maps and Google places api in order to locate the area you're in and show pharmacies that are nearby.

Wamp and XAMPP were used with PHPMYADMIN in order to design a database for my project.

1.4 Structure

The start of this report gives the reader of this document a hint of what the project is. It then goes on to explain the background of the project and why the person chose this idea. Details of what the aims of the project are. Also the technologies used in order to develop the project.

The second part of the report outlines the system and requirements of the project. It will show what must be implemented in the project. The design and architecture of this system is also explained in this part of the report. There is also a description on the testing in which I have done for my project.

The third section gives my end thoughts on the project itself.

The fourth section outlines the possibility for growth of my app and potential new ideas.

The fifth section gives references of video, articles etc. which I have used in the course of my project.

The sixth section contains my monthly journals which I have submitted and also my project plan.

2 System

2.1 Requirements

The requirements and objectives that we want to reach for the users are:

- To have an easy to use app which pharmacies and customers can use.
- Have information about prescription items within the pharmacy.
- Have a shopping cart where customers can order there prescription for collection.
- Have an option where customers can attach there prescription as an image. As you need a prescription to get the items.
- Have a log in system on the app for users.
- The app will also show you all local pharmacies nearby.
- Have a safe log in system for users so nobody can hack there account

2.1.1 Functional requirements

These are the following functional requirements which I will have on my app.

1. User login page
2. User registration page
3. Home page
4. Product Search
5. Order prescription
6. Local Pharmacy
7. Contact Us

The app will open on the login page. A user will then have to register or login in order to gain access to the home page which will give you access to the other functions on the website. The registration is very useful as it allows users to order their prescription online for collection. A user will have to enter his email address, name, username and password in order to register. After this it will be simple for the user to login to the site.

3.1.1 Use Case Diagram

Each requirement should be uniquely identified with a sequence number or a meaningful tag of some kind.

The Use Case Diagram provides an overview of all functional requirements.

3.1.2 **User login**

The user can login on the app

3.1.2.1 Description & Priority

The user will only be able to use the app if has logged in. This is essential as the pharmacy needs details of each customer in order to prepare prescription.

Scope

The scope of this use case is that the user can login

Description

This use case describes how the user can login

Use Case Diagram

Flow Description

Precondition

The system is in initialisation mode waiting for you to open app

Activation

This use case starts when the user opens up the app

Main flow

1. The user enters details
2. The system will check details in database
3. If correct user will gain entry
4. Details correct user may enter app

Alternate flow

1. The user enters details
2. The system will check details in the database
3. If details incorrect
4. User must reenter details

Termination

The system presents the next options on app

Post condition

The system goes into a wait state

3.1.3 **Prescription order**

3.1.3.1 Description & Priority

The user is able to order his prescription for collection via the app.

Scope

The scope of this use case is for the user to order the prescription

Description

This use case describes how the user orders there prescription

Use Case Diagram

Flow Description

Precondition

The system is waiting the user to log in

Activation

This use case starts when the user logs in

Main flow

5. The user logs in
6. The user then clicks on order prescription
7. The user then clicks on what medicine they need
8. Those items go to the basket
9. User attaches image of their prescription
10. User places completes order
11. Pharmacy receives order and starts preparing

Termination

The system returns to the home page

Post condition

The system goes into a wait state

3.1.4 Product Search

3.1.4.1 Description & Priority

Scope

The scope of this use case is for the user look up information about medicines

Description

This use case describes how the user can find out information about product before they order

Flow Description

Precondition

The system is waiting the user to log in

Activation

This use case starts when the user logs in

Main flow

13. The user logs in
14. The user then clicks product search
15. The user enters in product they want to find information on
16. The system then checks the database for information
17. The database sends data back to screen
18. A link to a website will be given with information on the product

Alternate flow

-

Termination

The system returns to the home page

Post condition

The system goes into a wait state

3.1.5 Google Maps

3.1.5.1 Description & Priority

The user is able to check the nearest pharmacy to him and check if the products he needs are in stock.

Scope

The scope of this use case is for the user to locate nearest pharmacy and check stock

Description

This use case describes how the user checks the nearest pharmacy

Use Case Diagram

Flow Description

Precondition

The system is waiting the user to log in and click on maps

Activation

This use case starts when the user logs in and clicks on maps

Main flow

19. The user logs in
20. The user then clicks on maps
21. The system will then picks up the location of the user
22. The system shows local pharmacy's nearby

Alternate flow

-

Termination

The system returns to the home page

Post condition

The system goes into a wait state

2.1.2 Data requirements

The data will store information from every user who has registered on the site.

There username, email and password will be stored. The administrator will have access to all information. Including PHPMYADMIN where users will be stored in the database.

2.1.3 User requirements

The app is an easy to use system. Users can register on the site. This will then allow them to log onto the site. Once they have registered and created a login they will be able to use the apps facilities for example ordering a prescription.

3.2.2 Security requirement

The app will be extremely secure for users. They will have to have a capital letter and number in there password. Prescriptions need to be kept secure so security will be of a high standard.

3.2.3 Portability requirement

I have used bootstrap framework which allows the app to be used on a laptop and also will fit perfectly on a mobile phone or tablet

3.2.4 Reusability requirement

The user will be able to reuse the app once they have registered. There details will remain in the database if they want to use the app In the future.

2.1.4 Usability requirements

The app will allow for a very user friendly experience. As there will be many users who may not be used to ordering online using the app. So I have made it as simple and easy as possible to use. It will be easy to navigate around the site from the navbar which will have titles of all the pages on the site.

2.2 Design and Architecture

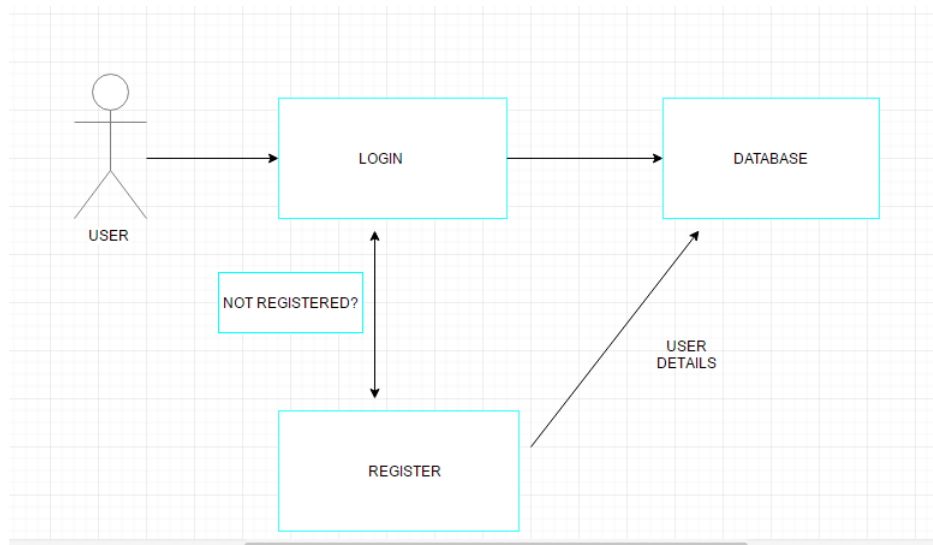
My app was mainly developed and designed through PHP, HTML and CSS. PHP was easy to use and develop that is why I picked it as my main language. It also

allowed for simple access to an SQL database of the user registration and login details.

The design of the app was mainly developed through bootstrap and CSS which created a slick looking website which is very easy on the eye. Bootstrap allowed for a responsive and crisp clean app.

Use Case Diagram

The use case diagram below shows details of a user's login and register. If they have not registered before, they can do so by entering their details. These details will be stored in the database and the user will then be able to return to the login page and login.



2.3 Implementation

REGISTER- The registration process was created using PHP, PHPMYADMIN and mysql.

<?php

```
include 'core/init.php';
```

```
logged_in_redirect();
```

```
if (empty($_POST) === false) {
```

```
    $required_fields = array('username', 'password', 'password_again',  
    'email');
```

```
    foreach($_POST as $key=>$value) {
```

```
        if (empty($value) && in_array($key, $required_fields) === true) {
```

```
            $errors[] = 'Fields marked with an asterisk are required';
```

```
            break 1;
```

```
        }
```

```
    }
```

```
if (empty($errors) === true) {
```

```
    if (user_exists($_POST['username']) === true) {
```

```
        $errors[] = 'Sorry, the username \'' . $_POST['username'] . '\''  
is already taken.';
```

```
    }
```

```
    if (preg_match("/\s/", $_POST['username']) === true) {
```

```
        $errors[] = 'Your username must not contain any spaces.';
```

```
    }
```

```
    if (strlen($_POST['password']) < 6) {
```

```
        $errors[] = 'Your password must be at least 6 characters.';
```

```
    }
```

```
    if ($_POST['password'] !== $_POST['password_again']) {
```



```

        $errors[] = 'Your passwords do not match.';
    }

    if (filter_var($_POST['email'], FILTER_VALIDATE_EMAIL) ===
false) {

        $errors[] = 'A valid email address is required.';
    }

    if (email_exists($_POST['email'])) === true) {

        $errors[] = 'Your passwords do not match the registered
email address.';
    }

}
}
}

```

The code includes a link to init.php which has details on which database the website connects to i.e.

```

mysql_connect('localhost','root','')or die($connect_error);

mysql_select_db('pharmacydatabase') or die($connect_error);

```

The “pharmacydatabase” stores relevant information of users when they register, so they can login to the website. The code was also designed so that the user must enter a valid email address and the password that they are using to register must match. The password must also be longer than 6 characters long for security purposes. This allows for a strong platform. Users can securely register and login to the website to view its feature.

CART- This snippet of code is taken from my products.php and it is the code used in my prescription order cart. The code connects to the “pharmacydatabase” and returns data. This is shown in the code below:

```

<?php

```

```

require_once("includes/connection.php");

if(isset($_GET['action']) && $_GET['action'] == "add"){

    $id = intval ($_GET['id']);

    if(isset($_SESSION['cart'][$id])){

        $_SESSION['cart'][$id]['quantity']++;

    } else {

        $sql2 = "SELECT * FROM products WHERE id_products={$id}";

        $query2 = mysql_query($sql2);

        if(mysql_num_rows($query2) != 0){

            $row2 = mysql_fetch_array($query2);

            $_SESSION['cart'] [$row2['id_products']] = array("quantity" =>
1,"price"      => $row2['price']);

        } else {

            $message = "This product id is invalid";

        }

    }

}

?>

```

The cart connects to the “pharmacydatabase” which has products stored in it. The products are then retrieved from the database as well as their price and description. They are then displayed for the user so they can pick what products they need

PHPMAILER- I have implemented phpmailer as a manager between email and my database. Gmail is my host as seen in my code “Host='smtp.gmail.com';” So I set up an email account for the pharmacy that the app would be used in. So when a user submits their prescription order an email is sent through phpmailer to the pharmacy. Phpmailer is also implemented in my contact us page. This page is used for used who may have a problem or question. They can email the pharmacies email address.

```
if(empty($errors)){
```

```
    $m= new PHPMailer;
```

```
    $m->isSMTP();
```

```
    $m->SMTPAuth = true;
```

```
    $m->Host = 'smtp.gmail.com';
```

```
    $m->Username = '*****';
```

```
    $m->Password = '*****';
```

```
    $m->SMTPSecure = 'tls';
```

```
    $m->Port = 587;
```

```
    $m->isHTML();
```

```
    $m->Subject = Prescription Order submitted';
```

```
    $m->Body = 'From: '.$fields['name'].'  
( '.$fields['email'].')<p>'.$fields['message'].'</p>';
```

Google Maps

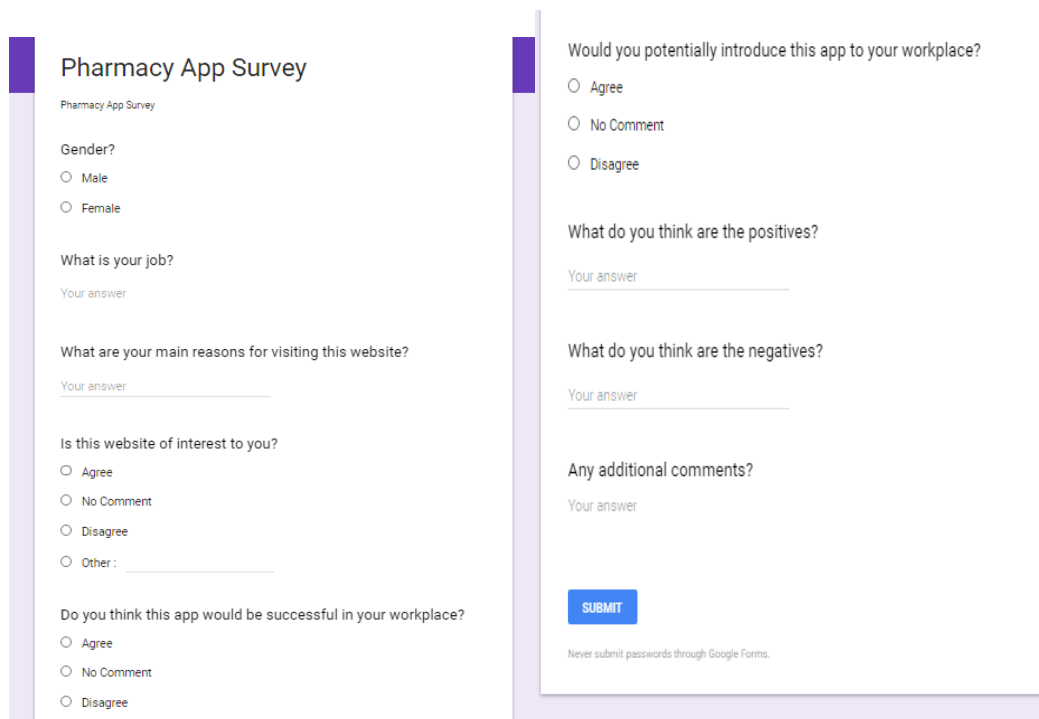
I have implemented a Google maps and Google places api in order to show local pharmacies near the customers current location. The code below shows how a marker is set up on the map.

```
function createMarker(latLng, placeResult) {  
    var markerOptions = {  
        position: latLng,  
        map: map,  
        animation: google.maps.Animation.DROP,  
        clickable: true  
    }  
  
    //Setting up the marker object to mark the location on the map canvas.  
    var marker = new google.maps.Marker(markerOptions);  
  
    if (placeResult) {  
        var content =  
        placeResult.name+'<br/>'+placeResult.vicinity+'<br/>'+placeResult.types;  
        addInfoWindow(marker, latLng, content);  
    }  
    else {  
        var content = 'You are here: ' + latLng.lat() + ', ' + latLng.lng();  
        addInfoWindow(marker, latLng, content);  
    }  
}
```

The code picks up the users location using latitude and longitude and displays a marker on your current location. This is done using JavaScript which is linked to the map html.

2.4 Testing

Once I thought of my idea I wrote out a survey asking questions to pharmacies about the potential app I would be making and if they would think it would be useful. I gave them a brief description about my app and what I was planning to do. The questions I asked were:



The image shows a Google Form titled "Pharmacy App Survey". The form is divided into two columns. The left column contains the following questions and options:

- Gender?
 - ☐ Male
 - ☐ Female
- What is your job?
Your answer
- What are your main reasons for visiting this website?
Your answer
- Is this website of interest to you?
 - ☐ Agree
 - ☐ No Comment
 - ☐ Disagree
 - ☐ Other : _____
- Do you think this app would be successful in your workplace?
 - ☐ Agree
 - ☐ No Comment
 - ☐ Disagree

The right column contains the following questions and options:

- Would you potentially introduce this app to your workplace?
 - ☐ Agree
 - ☐ No Comment
 - ☐ Disagree
- What do you think are the positives?
Your answer
- What do you think are the negatives?
Your answer
- Any additional comments?
Your answer

At the bottom of the right column, there is a blue "SUBMIT" button and a small text that says "Never submit passwords through Google Forms."

I got very positive feedback to my questions, which gave me new ideas which I could use and also features which I could change and get rid of.

Once I had finished coding my app I asked people to test it and answer a survey. I ask many different types of people to test my app because I wanted to get answers from different perspectives. For example checking if amateur level

computer users could login and register with ease onto the website. The survey questions I made up are shown in screenshots below.

Finished App Survey

Gender

☐ Male

☐ Female

What is your reason for visiting this web app?

Your answer

Does this web app interest you?

☐ Agree

☐ No Comment

☐ Disagree

Is the web app easy to use?

☐ Agree

☐ No Comment

☐ Disagree

Can you quickly find what you want?

☐ Agree

☐ No Comment

☐ Disagree

Does this web app help you find what I am looking for?

☐ Agree

☐ No Comment

☐ Disagree

Is this website slow?

☐ Agree

☐ No Comment

☐ Disagree

What do you think is the best feature of this web app, and why?

Your answer

What feature of this web app do you think should be improved, and why?

Your answer

Would you use this web app in your workplace?

Your answer

SUBMIT

I also received very positive feedback from testing. With amateur level users finding it very easy to use and also advanced level people. Testing also gave me extremely good ideas on how to improve my website.

Unit Testing

I have used unit testing on my app in order to find errors within my code. Unit testing is exploring different test features thoroughly. I asked pharmacists to use Pharmamanagement and took down the results that they gave me. The features I tested were:

Prescription Order

They tested the prescriptions cart by adding different products to the cart, seeing if the products were actually adding correctly. One problem they noticed was that if you added a product by mistake there was no way to undo this. You had to go

back to the home page and try again. I corrected this by adding an update cart function, which can take away unnecessary products if needed.

Login/Register

The pharmacists tested the login and register system by registering an account and trying to enter with incorrect details. The system blocked them from entering the site which is what I wanted to do. They also tried to register on the website without a valid email address. They gained access which was a fault on my side. I have corrected this error by adding functionality to stop this.

Pharmacy Locator

To test the map I got the users to use the app in different areas i.e. in work and at home. The map performed well showing local pharmacies to the location they were in. The map successfully picked up their latitude and longitude. The map also successfully allowed users to click on the markers and find out the names of the pharmacies.

Black Box Testing

This is a testing method for testing software which the internal structure, design and implementation of the item are tested by a tester that knows nothing about the item.

| <i>Test Case</i> | <i>Expected Result</i> | <i>Pass/Fail</i> |
|--------------------------------------------|------------------------------|------------------|
| Press Login | Goes to home page | Pass |
| Press Logout | Brought to
My Rating page | Pass |
| Switching pages
by pressing on
title | Going to correct page | Pass |
| Contact us
page | Contact the pharmacy | Pass |
| Click local
pharmacy | Show pharmacies
nearby | Pass |
| Search for
products | Information on
website | Fail |
| Prescription order | Ordering prescription | Pass |
| Click Register here | Register on website | Pass |

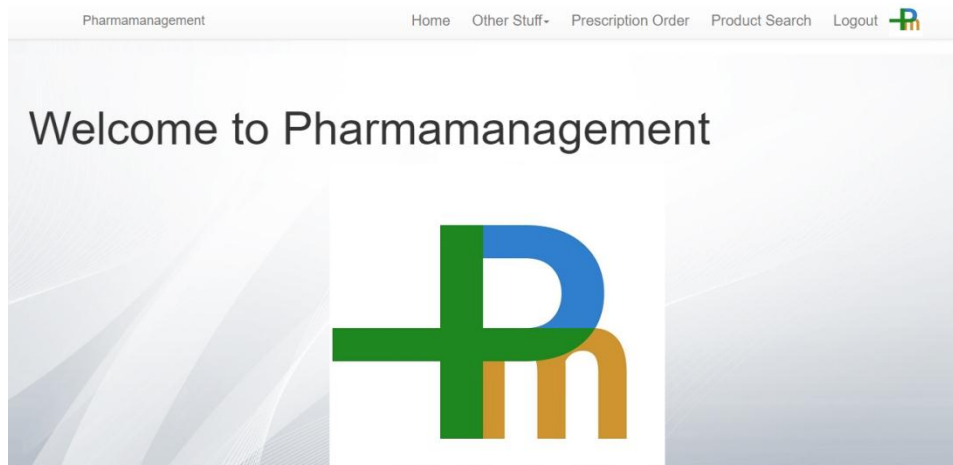
2.5 Graphical User Interface (GUI) Layout

Welcome to
Pharmamanagement



[Register here](#)

The easy to use login page will allow users to easily access the app. They simply have to enter username and password and they will gain access. If the user logs in successfully they will then gain access to the website. If they have not yet registered they can click the register here button.



The Pharmamanagement home page has a sleek look to it but it also keeps its easy to use approach. Bootstrap allows for a sleek interface which is mobile responsive so users can use their phone or on their laptop. The user can gain

access easily to the websites pages from the navbar. Simple and clear titles are used in the navbar to allow for easy navigation around the website.

When I tested software users found it easy to navigate around the site. This shows that the software is user friendly, which means that it was fit for its purpose. This was one of my main goals of this project.

2.6 Customer testing

I am currently working in a pharmacy so when my app was completed I asked the pharmacists to test it and give me feedback in a survey. This was very valuable to me as it would be pharmacies I would be selling my app to.

I showed the prototype app to my pharmacy colleagues. Feedback was very positive, with all employees agreeing that my app would be beneficial within the pharmacy, particularly in reducing time for customers and getting their script to them quicker. Pharmacists found the app to be an excellent idea, and thought it would be a very good resource for the pharmacy if implemented.

They all agreed it was a very attractive and easy to use website. They also all agreed that the product inform page will be very beneficial, as customers who come in don't know much about the products they're using.

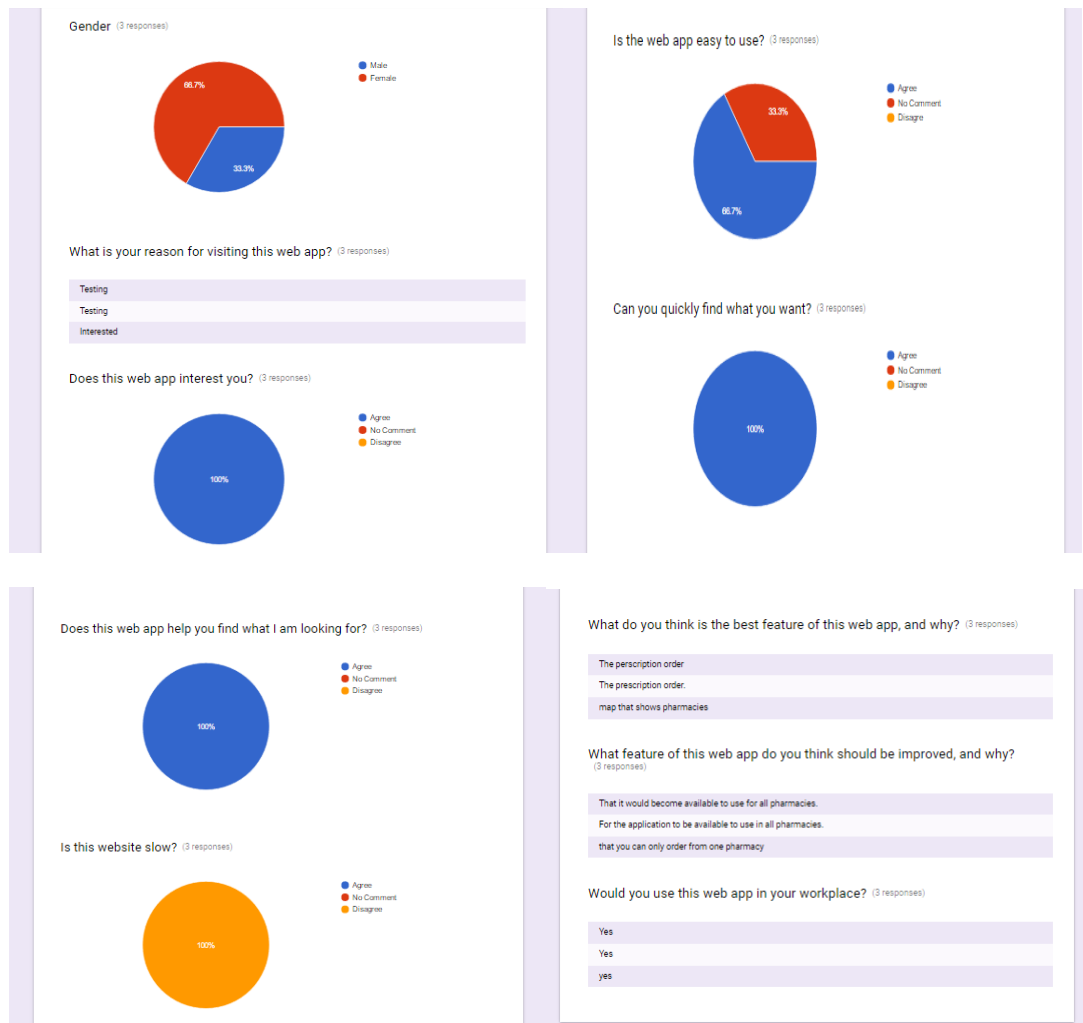
I also gathered ideas on how I would be able to improve in the future.

2.7 Evaluation

Pharmamanagement was evaluated thoroughly in many different ways. Users with no experience, pharmacists and computing students tested and evaluated this app.

Users with no experience felt that site was very easy to use and that it would be very beneficial. As you can see in my blackbox testing, users with no experience felt as though the test case was implemented correctly. I found that the users with no experience with pharmacy knowledge gained information from testing my site. This is what pharmacists would like to have.

When asking my pharmacists to test my app, they felt it was an easy to use app which would be hugely beneficial to pharmacies. They gave me ideas on what I can use to grow in the future as well by filling out my survey. The screenshots below show 3 different responses I got from pharmacists.



So as seen in the feedback I have evaluated that my app is easy to use and would be useful in the workplace. They all said they would use the app in a workplace. But the response that stands out is the negative part of my website. All pharmacists agreed that the one negative effect was that you can only order from one pharmacy. This is something I hope to change with future development.

3 Conclusions

I faced many challenges throughout the duration of this project. As my coding is not the strongest implementing features were quite difficult. I planned on implementing features that I didn't get to finish but I am still happy with what I have done.

The idea of my project was one that I felt could really become successful. It was also very important to me because spending 3 years in a pharmacy that is always looking to improve efficiency, I felt as though I could help improve customer satisfaction with this app. I really enjoyed interacting with people in my pharmacy asking them to test and give me feedback. I felt that I broadened my knowledge of PHP, JavaScript, html and CSS dramatically. As working by yourself you have nobody else there to help you, you have to keep researching and learning. I have become a stronger programmer as a result of this project, something I feel I am not that experienced in. The app can hopefully become a platform for pharmacies to become more technology based and help broaden their consumer base.

4. Further development or research

I feel as though this project has huge potential to grow with future development. There are many aspects that can be improved. I will definably come back and improve this project once the deadline is over. I did not want to try ideas that may not have worked early on in my project as I may not have reached the deadline and wasted time.

One option I may want to improve on is the prescription order, as pharmacies are not allowed to delivery prescriptions without a physical script. If legislation changes soon pharmacies may be allowed to delivery prescriptions to customers who are unable to leave there house. This would be hugely beneficial and be a huge development for the app.

Another future development I could add is if I get more than one pharmacy on board with my idea, I can add functionality where users can order from more than one pharmacy. So when users open the Google map, the map will pick up local pharmacies to the area you're in. In the future I would like to be able to click on one of the pharmacies shown on the map and order my script from that pharmacy.

References

Bootstrap -

<https://www.youtube.com/watch?v=1WH0Mvvp2Fs>

Prescription Order -

<https://www.youtube.com/watch?v=3lPCuzEty8&index=16&list=PL91B40A1DC46EE2E4>

Login and register system –

<https://www.youtube.com/watch?v=4oSCuEtxRK8>

Contact Form –

https://www.youtube.com/watch?v=FtWD_ZH9InE

Surveys –

<http://www.wammi.com/>

PHP language –

<https://github.com/>

Login and Register -

<https://www.youtube.com/watch?v=9kyQGBABA38&list=PLE134D877783367C7>

Google map api –

<https://developers.google.com/maps/>

Testing –

<http://softwaretestingfundamentals.com/black-box-testing/>

PHP language –

<http://stackoverflow.com/>

Login and register system –

<https://www.youtube.com/user/phpacademy>

Google maps api –

<http://www.w3schools.com/googleapi/>

Cathal Condon, Midpoint Presentation Report, 2016

4 Appendix

4.1 *Project Proposal*

Pharmanagement

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Business information systems

Date 2/10/15

1. Objectives

- I plan to build a pharmacy management system which aims to improve efficiency. I hope to build a project which could be of use to a pharmacy and which may be used in the future.
- I hope my system will manage stock levels of prescription items and also normal stock. If the pharmacy is low on stock the system should inform the suppliers and new stock will be automatically ordered.
- I hope to have a large database within my system which will store information about prescription medicine so if a customer is asking about a product

it will be easy to find information about it. As I feel having the information there and having it quickly at hand. I also hope that the database will be able to store information about customer's prescriptions. So if a customer hands in a prescription he will always be on file in the database. I am also going to use an sql function also to keep records of employees clock in and clock out times. If an employee is late the manager will receive a text confirming the employee is late.

- I hope to implement a Google maps. With this I hope to be able to show pharmacies close by which may have stock which we don't. As sometimes customers come in and we do not have the prescriptions they need. This saves a huge amount of time as normally you would have to ring other pharmacies to check so this way is much more time efficient. For this to happen my system will need to be installed in multiple pharmacies. I hope that my system will reduce costs within the pharmacies and also save time so more time can be put into more important jobs.

2. Background

I feel as if there is a gap in the market for a system like this. So i am looking to exploit that.

As i work in a pharmacy i feel as though i have a good idea of how it works. I also feel as though I know problems which exist and can exist within the business. I feel as though there is a hole in the market for a new system like this.

I have used a Google maps api on my previous projects so hopefully I can use that knowledge and implement it into this system.

I feel as though there is no product on the market that compares to my system. So I feel as though there will be a lot of pharmacies interested. I have keen interest in seeing how pharmacy systems work that is my I have chosen this as my project.

3. Technical Approach

I have researched other systems which are on the market in order to gather information for my project and also to get some ideas which I can add to my system.

I have also inspected the management system which we use in the pharmacy I work in intensively. In order to get a first-hand view of a management system.

4. Technical Details

PHP, Microsoft Windows XP, XP Professional, Windows excel, Google maps api, yelp api, my sql.

I haven't fully decided what languages I am going to use yet.

5. Evaluation

As I work in a pharmacy I will be able to test and get feedback from pharmacists as too see if my system useful. I will be able to implement data from the pharmacy and test it in my system. I will be able to evaluate the system with an end user by testing it in an actual pharmacy and seeing if it works. I will plan to test my system twice within the pharmacy.

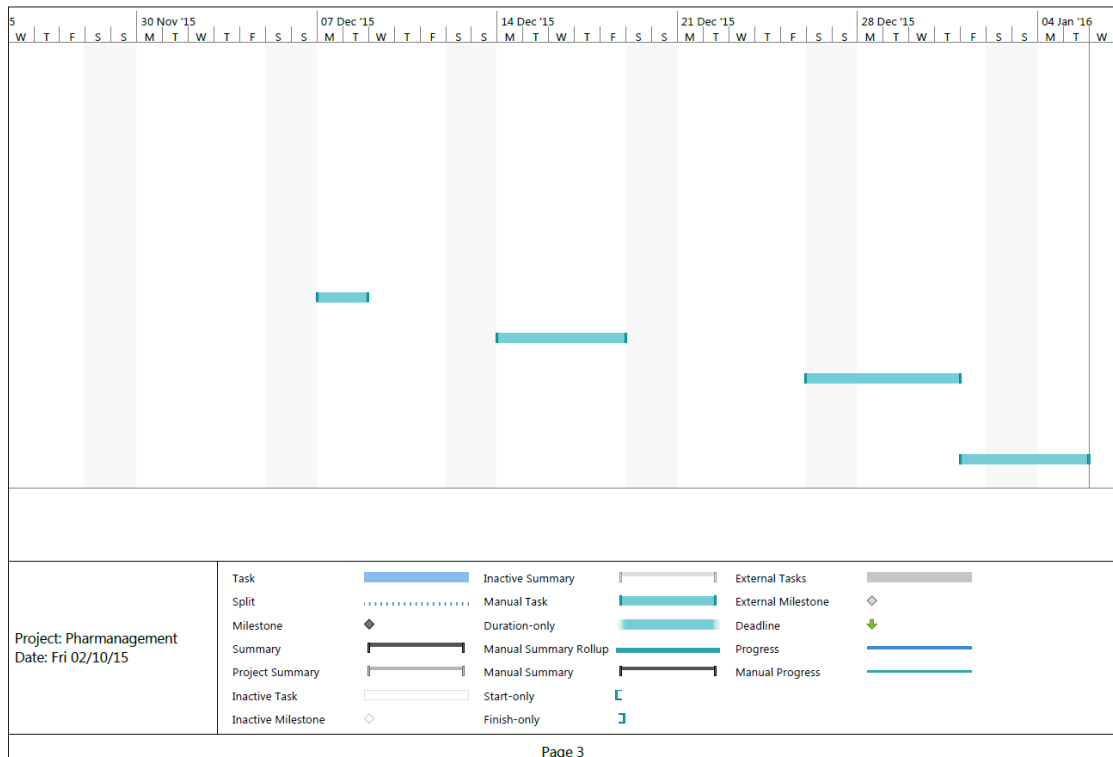
I feel as though I have a unique project which can be successful.

Cathal Condon

02/10/15

4.2 Project Plan

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4.3 Monthly Journals

Month: **September**

My Achievements

This month, I was able to finalize my project Idea. I choose a pharmacy management system. This system will aim to hit all the objectives i gave myself in my project proposal.

My contributions to the project this month included researching a suitable topic for my project. I have also asked numerous pharmacies what they would different about their system they have installed.

I have also started the base for my project trying to get the framework sorted. I have installed bootstrap onto the site as that is what I'm going to use as the design.

My Reflection

I felt, it worked well to pick a pharmacy management system as I work in a pharmacy part time while I'm studying I college and have done so for the past 3 years. So I feel as though I have a good indication of what is needed for a pharmacy to work successful.

However, I was not successful in getting the database up and running yet. I am running a little behind schedule as it took me a bit of time to decide on a final project.

Intended Changes

Next month, I will try to finish my database on my website. This will Store information about all products in the pharmacy. I also want to get a start on my goggle maps api which shows local pharmacies on the map with products in stock.

Supervisor Meetings

Date of Meeting: Haven't met up with supervisor yet.

Month: **October**

My Achievements

This month, I was able to add to my finalized my project Idea. I have also been trying to hit all the objectives I gave myself last month

My contributions to the project this month included adding many more new ideas to my app which came to me from meeting with my supervisor. I was able to see what I could get rid of and what I could include

I have also started the base for my project trying to get the framework sorted. I have installed bootstrap onto the site as that is what I'm going to use as the design.

My Reflection

This month I felt I have put in a lot of time into my app developing new ideas and making it more unique and sellable. I have spent a lot of time trying to pick a language to code it in. I have now decided I will do it in Phonegap.

Intended Changes

Next month, I will try to get a start on programming up my app. I also want to send out surveys to pharmacies asking about their opinion of my app idea and get feedback.

Supervisor Meetings

Items discussed: - Final Project Idea, Software I will use, Testing and new ideas

Action Items: - Add new ideas to project

Month: **November**

My Achievements

This month, I have spent my time asking pharmacies if they think my app would be useful in their shop. I have got positive and negative feedback which has helped me a lot

My contributions to the project this month included adding many more new ideas to my project. I have also made up survey questions to ask pharmacists about my app.

I have also started coding up my website but have not gone too far into it as I have had many other college projects and assignments.

My Reflection

This month I felt I have put in a lot of time into my app developing new ideas. I have spent a lot of my time asking opinions of my app. Which I feel has been extremely useful to me as it has helped me realise what I've been doing wrong.

I have not put too much effort into the coding side this month but feel as though I will hit the ground running in December once my assignments have finished up.

Intended Changes

Next month, I will try to get a start on programming up my app.

I want to have a lot of my app programmed up and also have a prototype to ask people to test!

Supervisor Meetings

Have not met up with supervisor this month.

Month: **December**

My Achievements

This month I started focusing on the prescriptions order part of the project.

My contributions to the project this month included adding many more new ideas to my project. I added bootstrap to my app which has made it look a lot nicer and made it responsive. I have also nearly finalized my prescriptions order cart. I have it hooked up to PHPMYADMIN but there is a few things I need to fix before it is perfect.

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My Reflection

This month I felt I have put in a lot of time into my app adding bootstrap and also the shopping cart. I have spent a lot of time trying to code this month and I am happy with my developments.

Intended Changes

Next month, I will try and get my login and register system up and running.

I want to have a lot of my app programmed up and also have a prototype to ask people to test!

Supervisor Meetings

Discussed how far I am with coding.

Month: **January**

My Achievements

This month, I have spent my time Trying to put together all the elements of code which I have done i.e. Shopping cart and bootstrap frame work.

My contributions to the project this month included starting on the login and register system which will be on my app. I have also starting writing up my midpoint presentation doc and presentation in preparation for February.

My Reflection

This month I felt I have put in a lot of time into the login sand register system of my app. It is taking longer the expected for me to finish it but as I am not the strongest coder it is taking its time. I am also a bit disappointed that I have not yet perfected my shopping cart but hope to have that done before the presentations.

I have put in a lot of effort this month in preparation for the midpoint presentation.

Intended Changes

Next month, I hope to have the login and shopping cart finished and also to start on the Google maps api.

Supervisor Meetings

We discussed the midpoint presentation and what I need to do in order to get top marks.

Month: **February**

My Achievements

This month I completed my midpoint presentation for my project. I feel as though it went well. I managed to get some new ideas and ways to improve my app. For example I plan to add an order tracking system. So once a prescription is made the user will receive a tracking number and they will be able to track their prescription.

My contributions to the project this month included adding many more new ideas to my project. This month I have not done that much on the coding side as I have many other projects and assignments due. I have been working on updating my delivery basket and login and register system. I have had a small bit of work to do on my website so this month I have been fixing things.

My Reflection

This month I felt I have been more focused on other projects and assignments as I have many deadlines coming up. I have done a small bit of work trying to fix problems I was having. But this month I have not put that much effort into my project.

Intended Changes

Next month, I will try to implement my prescription tracking system. I also intend to spend a lot more time on my project.

Supervisor Meetings

I discussed how I can improve my project and also how I am prepared for my midpoint presentation, also adding new ideas to my project.

Month: **March**

My Achievements

This month I completed my contact page. This allows users to email the pharmacy if they have any problems. I got this working using phpmailer.

I also got my Google maps api working which shows local pharmacies to the area you're in using latitude and longitude.

My Reflection

I feel as though I have really focused on my project this month and got a lot of work done. I am happy with the progress I have made this month. I need to do more next month focussing on the prescription order.

Intended Changes

No intended changes this month.

Supervisor Meetings

We discussed how I was progressing with my project.

Also ways I can test my app once it is complete.

Month: **April**

My Achievements

This month I completed my prescription order. I can now have products pulling from the database into the cart. Users can add the products into their cart. Once they have done that they will need to enter their address and name and attach an image of their prescription. This will then send an email to the pharmacy to start prepping the script.

I also implemented my login and register system so that users can login to website. In order to get into the website you must register and login

My Reflection

I am very happy with my progress this month. I got the main functionality of my project working.

Intended Changes

I have no intended changes for my app this month. I have new ideas to add but I will not add them until my project is finished.

Supervisor Meetings

Discussed how much I have left to complete on my app and any changes I have to make.

4.4 Other Material Used

Any other reference material used in the project for example evaluation surveys etc.

CD containing code should be glued to the technical report.

(Only applicable to the Final Report in May 2016)