Progress Report 17/03/2015

This is an overview of what I have done so far and what I plan to do. For details each stage has been stored on GIT HUB https://github.com/sc12msw/Project.

Background reading and requirements gathering. 26/01/15 – 31/01/15.

This was the first task of the project which aimed to get the minimum requirements to make a start on developing the software. This task was also to evaluate these requirements and research into what needs to be done to be able to meet the requirements. Meetings with the client and supervisor were be the main source get these requirements.

What I learned from this task.

- I created a paper prototype of the app and the client and I made alterations to the initial design on with help of a white board. Examples of this is in the documentation folder under the file meetings.
- Through meetings I managed to create a drug and pathogen object as the client showed me his website held fields about drugs. I used the idea of this structure to create a drug object and showed this to the client to confirm this is all the details a drug should have. My suggested idea for a pathogen object was also confirmed in that meeting. These objects will be used to hold the data to display into the app.
- I then researched different ways of how to get the data from a server to the app. At this point of the project it was proposed that it would be good if it was available on both IOS and Android. So I looked for server types with very loose coupling so it can send data to different systems easily with little overhead and no compatibility issues. REST web service was the chosen approach as it is a simple architectural style for sending data with HTTP and only MIME types which any operating system can understand.
- I then researched what frame works or libraries would be needed to implement the XML parsing and REST. The more popular REST frame works are Jersey and Spring both with advantages in certain areas. I found that Spring seemed to be more catered to web sites and had quite a lot of configuration in comparison with Jersey. I also had experience in Jersey before from Labs with Karim so I decided this was the best option. For the XML marshalling Jersey has JAXB which can create XML from class objects automatically and GData for the IOS application because they have a very good Objective C library.
- I Organised future meetings with client and supervisor this was to be weekly Tuesday 11:30am. Meetings with my supervisor and every two weeks with my client just after 12.

Planning and Scoping Document. 03/02/15 – 07/02/15

This task is to produce a planning document to be show to an assessor to give an overview of the project.

First Iteration of Development (IOS Prototype). 10/02/15 – 23/02/15

This the first 14 day iteration where the first prototype was made to show to the client.

What I achieved:

- Created first prototype of the app.
- The app could read from an XML file I had created with test data and display the data on the app.
- The app had 5 views, a drug table where all the drugs are listed, and a detail view for each drug and same two view for the pathogen. I also was asked to add a simple calculator which is the fifth view.
- Simple first interface on git hub under Documentation/First Iteration folder.

MILESTONE 1 Review progress 24/02/15

When the app was shown the client some changes were requested to the interface they have been since implemented since then. The details are in the meetings document.

Second Iteration Server Implementation 25/02/15- 10/03/15

This iteration was to create a REST web service that can deliver the mobile applications data through a HTTP get request. The mobile application should be able to understand its repose and display the data.

What I achieved:

- The server can create a XML file based on the classes I had created to store details of the drugs and pathogens.
- The server can return the data as XML to the app when requested through a URL and the app can update and store the data.
- The server can also return the data as html to be viewed as a webpage although has little CSS implementation. I may use Bootstrap for the end product.

MILESTONE 2 Review progress 10/03/15

This milestone was quite tricky to show the client that the server was working as it was really hard to get the server working on the SoC computers as they didn't have an up to date version of Java and eclipse so I couldn't show the interaction of the app and the server but it is working. I will bring my own laptop and mac in for the presentation.

Third Iteration Database Implementation 11/03/15 – 24/03/15

The server should be able to interface with a database to create many objects filled with data about drugs and pathogens to be saved to an XML file and passed to the mobile application on request.

What I am currently implementing:

- At the moment I have created to additional webpages where you can add a drug or pathogen object to the server. But the client has sent me the database and it is in a format I have never seen before and I am struggling to open it. The client does not know what the

format is as it is generated by a program that is used to make websites. So the objects do not have persistent storage so I am just creating the file from objects I have already initialised. If I cannot open the client's database I will create database structure and the data can be entered again. As there is no pathogen data this will probably have to be done anyway.

What I plan to do:

- Server can parse the entire database of data to the mobile application.
- Server can interface with database to fill objects with data.
- Server can query the database when certain URL's are entered.

Milestones Remaining

Report

I am struggling to get a good start on the report as I am not quite sure what to write and I am not very good at writing reports. But I know the general direction I have a little structure which includes some headings about research, justification and implementation. This is definitely my weakest area on the project on which I aim to improve.

Create a database

Get a working database up and running that the server can interact with and store data.

API

The REST service website will need to have instructions on how to use it. This will be on the first webpage. Additional useful features could also be added such as only returning certain drugs or only drugs or only pathogens for example.

App Instructions and features

A manual of how to use the app. The client would also like a comparison of drugs based on a chosen pathogen such as interactions and warnings. Another feature is to see all pathogens that can be affected by a particular drug.

Evaluation

This is going to be the live testing stage. The client has said they can provide students to test the application to see if the mobile application works properly, find any unknown bugs and get some feedback on the interface. Changes will be made if needed.

App Store

The client really wants this app on the app store I would like this to happen if I can get it through Apples strict curation process.