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SWINBURNE UNIVERSITY
OF TECHNOLOGY

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SWE30010 Development Project 2: Design, planning and Management

Project Proposal: *PHP-SRePS*

Solution Direction

As a group, it seems the consensus for the ideal project design is to develop a desktop application, instead of creating a website interface, that connects to a database management system. This DBMS will be responsible for storing, sorting, and retrieving various stored data, such as sales and item data. The database system is very important in this design, as it is will be storing all the important data from the People's Health Pharmacy. A good database system is important to implement as a step to achieving all the requirements requested by the PHP.

There are various ways to go about designing this product, so it is important to select a language and framework that our team is most familiar with. For this reason, I am proposing creating a desktop application using a combination of C# and WinForms to create the UI, as well as interfacing and implementing a MySQL database. The MySQL database can be hosted on an XAMMP web server, or hosting using a free MySQL web service As far as I am currently aware, most, if not all my team members, have had experience using C# in past units. We all have free access to the IDE Visual Studio, which will make coding our solution relatively stress-free, in comparison to other programming languages, which may not have fully supported free IDEs.

Other alternatives that could be considered if my proposed plan is decided against:

- Using Python or C++ to build the application (They are both supported in Visual Studio).
- Scrapping the idea of a desktop application and create a PHP/JavaScript web interface instead, using a hosting platform such as XAMMP or Mercury.
- Storing the database locally within the program folders, instead of using a DBMS such as MySQL. This would come with many security problems however, and data could be easily lost or deleted.
- Using another language to create a desktop program such as Java or Ruby on Rails.

As stated above, I believe a desktop application created in C# and WinForms, interfacing with a MySQL database system would be the best solution available to the team. This is partially because of our prior knowledge of C#, but also because a desktop application can be designed with more flexibility than a web system. It is vital for us to create a system that is easy to use for the workers at PHP, so, we should create an application that is self-explanatory, and easily to use, which I believe is easier which a desktop application, than a web application.

The final product will have an easy-to-use UI, which can display information from the DBMS, as well as produce sales reports and predictions, as requested by the People's Health Pharmacy.

Solution Design:

High Level Architecture Design