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OF TECHNOLOGY

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SWE30010 Development Project 2: Design, planning and Management

Project Proposal: *PHP-SRePS*

Background

Based in Hawthorn - PHP, or People Health Pharmacy Inc. is a small supplier of various medicine, health care products, and accessories. They currently operate under an inefficient paper-based recording system and are in need of an efficient software solution that will enable them to easily analyse sales data, create reports, and inform management in regard to which items are currently in demand.

As the company increases in size, and the amount of customers increase, using a paper-based recording system/database will become exponentially harder, meaning the company may have to employ and train more workers, which can cut heavily into profits. A digital database and recording system will help streamline record keeping within the company and will enable both old and new records to be found and used easily. Access to electronic sales records will allow reports and analytics to be created with ease, when compared to using paper-based records to do the same. Many companies in the technological age make use of digital database systems, from vastly different fields of work. Examples include grocery stores, hospitals, dentist clinics, accountant firms, and many more. As such, moving forward with PHP's proposal of a digital-based sales system would be the correct move, and has the potential to greatly increase the productivity and profit margin of the company.

Paper VS Digital

Understandably, a paper-based system requires much more manpower and effort to extract useful information out of (such as the aforementioned reports and sales data) than a digital system. There are many advantages to using a digital software-based sales system in the current technological age. Some of these advantages are listed below (Cochran, 2015).

- Very low chance to lose data vs a paper-based system
- Software can be written and expanded upon to provide easy to read data and analysis - this expansion can be implemented and continued many years after it is first introduced.
- Generally, a much higher ease of use than paper-based systems
- Digital records can be altered and changed far easier than paper documents
- Digital solutions can automatically perform tasks (such as keeping track of low-stock items) that may be forgotten or missed by employees working under a paper-based system

Our Objective

To create an intuitive, easy-to-use sales reporting software solution in order to increase PHP's productivity and performance. Our proposed solution is further defined under the "Scope" section of this wiki.

Scope

PHP has proposed that an application that analyses sales data, outputting weekly/monthly reports would target the raised issues and improve the business's workflow. A user-friendly graphic interface is requested to ensure that staff can effectively work. Additionally, PHP requires all reports to be CSV supported for further analysis.

The solution must contain the following features:

- Record, edit, and view sales data for pharmaceutical products
- Generate alerts for low stock
- Predict monthly sales for items based on previous sales
- Generate monthly sales reports which can be in CSV format
- Provide access to these features through a graphical interface
- Fully workable application and database system

Some additional considerations:

- The users have been using a paper system, so intuitive UI is important for a smooth transition, and tools for adding many records manually could be useful
- Display Items that are in demand
- Display stock numbers of all items in store
- Clients need more information about monthly sales (to determine demand of items) so this information must be easily accessible and intuitively presented
- Online/Cloud database
- Login system with different permissions
- Training session

Out of Scope:

- Online/mobile access
- Backups/redundant storage
- Data Encryption

Deliverables and schedule

- Fully working source code
- Finished Product meeting client requirements
- Clear code documentation for any further maintenance/development.
- Training documentation that clearly communicates system operation and effective use

Initial Release Schedule of the Product backlog items

No.	Item	Dependencies	Business Value	Release Schedule
1	Implement a mySQL database		8	Sprint #1
2	Design UI		6	Sprint #1
3	Add sales records to database	1	10	Sprint #1
4	Edit sale records	3	10	Sprint #1
5	Display sale records	3	10	Sprint #1
6	Display monthly sales report	3	10	Sprint #1
7	Generate a monthly sales report as CSV	3	10	Sprint #2
8	Add item Information (inventory)	1	6	Sprint #1
9	Edit item information	8	6	Sprint #1
10	Display Item Information	9	6	Sprint #2
11	Predict sales of an item monthly	8	10	Sprint #2
12	Predict sales of a group of items monthly	8	10	Sprint #2
13	Alerts for low stock	8	8	Sprint #2
14	Implement sales reducing stock automatically	8	5	Sprint #2
15	Create UI	All above	8	Sprint #2
16	Login system	15	4	Sprint #2
17	Online data sync	14	5	Sprint #2
18	Software information/Hand over	All above	7	Sprint #2

Reflection

101111372 | JAKE SCOTT
After some discussion we expanded the background and scope and altered the plan to include online record keeping using a mySQL database. We also shifted all the Sprint #3 backlog items into Sprint #2 and redistributed them. I would have preferred keeping the project on local machines since I have little experience with databases, but I trust the team and think this could be a good opportunity to learn these skills.

102259710 | TIEN PHU NGO
After the team meeting, the team has agreed on pretty much everything. We went through each team member's scope and worked out the optimal solution, some of my grey area ideas turned out not to be in the scope at all. Although I proposed a 3-print project, we finally agreed on 2. Product backlog list is pretty manageable to me as I have done similar projects of this kind in the past.

101100655 | LACHLAN BURNS
The group was happy with Jayden's initial background information. The scope had some minor changes from what I submitted as my individual task and was condensed, I had missed designing and creating a UI in my own proposal. For the backlog we were then able to come together and have it reflected on the team's scope which we all agreed on, we were torn on 2 or 3 sprints but eventually decided on 2.

102095118 | JAYDEN MCQUEEN
I am quite pleased with how the group scope has developed. We have integrated everyone's ideas into the final document and accommodated everyone's thoughts and wishes. The product backlog clearly defines what we want to complete in each sprint, and the layout is easy to read. Before finalisation of the group document, the group made sure everyone was happy with the final draft of the background, scope, and product backlog.

101131147 | MONIQUE KUHN
This week's teamwork and project establishment went smoothly and effectively. Although there was some confusion regarding the requirements of the project and expectations, this was clarified with our supervisor during tutorial time. The team was enthusiastic to establish good communications using **Discord** and **Collaborative Ultra**. Additionally, all members have taken to **Github** and **Trello** with ease. The intermittent stand-up meeting performed on Monday 17/08 allowed for better workflow and collaboration. I hope these quick meetings will continue as the project develops.