

Criteria A: Planning

The scenario:

My client is **Dr Arlene** who is a **doctor(dentist)**. Dr Arlene has numerous patients making it difficult to keep track of data by storing them on a physical medium. She wishes to improve the management of her clinic so that she can focus on dentistry and avoid dealing with these types of issues. The discussion with the client is attached in **Appendix 1**.

The scheduling of appointments is done using pen and paper. The client also faces issues with orders related to her equipment, Patient X-rays, Data sent to labs for analysis. This all causes the efficiency of the clinic to fall. The client's complaint is that when problems like these occur, she has to sit and resolve them herself, shifting her focus from dentistry. There is a lot of confusion and misplacement that occurs. The client did state some examples- once she had two patients come at the same time, she forgets about scheduled appointments, the delivery man with the equipment comes at times when she isn't available. Every time the client needs to access any patient records her staff must go through large stacks of files to find one patient record. To locate certain equipment her staff, must sit and go through each one.

The client's paperwork is often not organized as her employees and herself are always in a hurry to find their documents because of which a big mess is created.

Word Count: 237

Rationale for the proposed solution

After having a discussion with the client i have understood that there are multiple ways in which her problems can be solved by a software which will automate multiple tasks that were being done manually before. I will create a system software that will take in the patient records just once and scheduling can be done by just typing in their name and entering the time. A notification will be sent as a reminder to the patient and the doctor a certain time before. Lab reports and equipment condition reports will be generated automatically by the system. The system will also schedule servicing of equipment automatically. The proposed rationale is attached in **Appendix-2**

To succeed I have decided to use NetBeans as a **JAVA IDE** and **MAMP** for **PHPMYADMIN**. The installation process of **NetBeans** is extremely easy; hence the time consumption will be less. It has a powerful GUI builder which will help clients who are unfamiliar with computers. It also supports multiple java standards and has lots of language support. It automatically profiles and debugs the software. It is a free of cost and open support platform.

MAMP has a single window to manage PHP. It has a web start which provides several utilities. It can also have an unlimited number of hosts. It can have a different PHP for every host, and it also provides cloud storage for data. It has an inbuilt text-editor and can also be used with a LAN cable

The client and her staff aren't very skilled with computers therefore using these interfaces will be of a big advantage of the usability of the entire system.

Word Count: 257

Success Criteria (discussed in Appendix-3)

1. The software permits to login with different user types (admin or administrator)
2. The application will take data entry from the administrator of patient records
3. The system will permit the admin to add new staff to that database by filling out the “new staff” form.
4. The software will permit the administrator to schedule appointments by just entering names and will automatically fill in other details (e.g., phone no, address). The admin or employee will have to fill in a patient record form every time a new patient comes so that their name gets registered in the database.
5. The software will segregate the employee and the administrator dashboard with restrictive functions for the employee
6. The software will automatically schedule servicing for the equipment after their due time.
7. The software will permit the administrator to generate bills post the appointment after the client enters the procedures carried.
8. The software will automatically generate financial reports at the end of each month.
9. The software will automatically generate pdf files of their patient records, staff records and schedules appointments.
10. The system will notify the client and the patient/lab/servicing agency if any changes are made to the schedule by the administrator or the admin.
11. The system will allow the admin to edit costs of certain procedures and staff salaries.
12. The system will allow the admin and the employees to access patient records and update them when required.
13. The system will allow the administrator to notify the doctor in an emergency or if a message must be delivered, instead of calling the doctor via phone.