

Appendix A

Pharmacy Management Application

Name of the client: Mr. Subrat

Position of the client: Clinical Pharmacy owner

Date of the interview: 2/9/2023

Mode of the interview: Face-to-face

Interviewer: Hello, Mr. Subrat. Thank you for taking the time to talk to me today. To begin this interview, can you start by introducing yourself and your business?

Client: Sure! My name is Subrat Rout, and I own two clinical pharmacies. I am currently partnered with an orthopedician who visits my clinic daily. I also employ about ten people who help me run the business's everyday activities.

Interviewer: That's great to know! Can you give me a brief description of the problem that you are currently facing?

Client: My primary concern is to reduce the doctor's workload. He has to check up on 50 patients per day roughly, and it becomes stressful for him to continue doing so. He has to write all

medicines manually, which are often repeated multiple times throughout the day. He also has to repeat the directions for using the medicines prescribed, such as if it's taken before food, after food among others.

Interviewer: That can be easily solved. A database can be maintained which stores the details of the medicines. The details can then be retrieved whenever a doctor prescribes a medicine stored in the database, so that he does not have to rewrite the details again. To make it more efficient, how is the usual flow of how patients are handled?

Client: The patients can only book an appointment at the counter. We do not provide online services. The patients are assigned a token number for their appointment according to which they will be called to the doctor. The patient first gets their token number from the front desk. If they choose to, they can also cancel or rebook their appointment. Tokens are then called out sequentially according to their number for their appointment with the doctor. If the patient is not present, the next token is called out. This can be a tedious process, as we have to manually keep a counter of the last token number during both assigning and calling out, which often leads to errors on a busy day.

Interviewer: I can take a look into that as well. I can automate the process of assigning tokens, and give the doctor the option to select the appointment which is the most appropriate. Is there any other issue that you would like me to address?

Client: Yes, I would also like to reduce the wasteful expenses incurred by the business. The primary reason for that is expired medicines. For some high-demand medicines, we often order stock in advance to meet demands. Since we have not established a way to keep track of stock and solely rely on the medicines arranged on the shelf, the pharmacy sometimes delivers the newer medicines to the patients, instead of the ones that are more recently going to expire. This cycle often leads to the waste of medicines, and becomes quite expensive for the business.

Interviewer: That sounds interesting! Could you walk me through the entire process a doctor follows when evaluating a patient and writing a prescription?

Client: The doctor first asks the patient for the issue. Based on the issue, the doctor might prescribe some lab tests and medicines. The patient has to get the reports, and get another appointment with the doctor to get the lab tests evaluated. The patient will be charged again for the appointment. After each appointment is done, the patient has to get the samples collected for the lab tests, either from our own pharmacy or others. Based on the tests and medicines taken from the pharmacy, the patient is charged accordingly.

Interviewer: What happens when patients have special conditions, for example, allergies to certain substances?

Client: It's rare, but if a patient discloses allergies to specific substances, we analyse the composition of the prescribed medication and identify any potential allergens. Subsequently, we explore alternatives that deliver the intended therapeutic effects without triggering allergic reactions.

Interviewer: I will look into that as well, and I will keep you updated on the developments of this application. Thank you for taking time out of your day to join me!