

## **Comp2151- Group Project (ABC clinic)**

---

Your team has been selected to create a **“Clinical Management System”** using Agile- Scrum methodology. The clinic manager is the main contact for the client and he presented the key requirements in the class today and answered your questions.

As promised he has sent a summary of requirements based on today’s interview session in the class today (sept 24, 2018).

**PLEASE NOTE THAT THESE REUIREMENTS ARE NOT COMPLETE/COMPREHENSIVE BY ANY MEANS AND YOU SHOULD FURTHER CLARIFY THESE BY SCHEDULING AN INTERVIEW WITH ONE OF THE STAKEHOLDER/POTENTIAL USER**

(\*\*Your instructor will play these roles during the lab sessions and you may ask him to assume the role of the manager/doctor/nurse/patient/receptionist etc. to further clarify your requirements)

### **Case Description by clinic manager**

ABC clinic is a busy clinic located in a small city located in northern Ontario and provides services to approximately 1200-1500 patients per week on the average. I have been managing this clinic for almost 20 years now. Currently we are documenting everything on paper and storing paper based files. Since there is a governmental regulation to store and safeguard patients’ information for confidentiality and privacy reasons, we have a huge storage space that houses

these files and its now running out of space. I visited some clinics in Toronto and was amazed to see that almost every clinic here has gotten rid of paper based system and has switched to a software system that stores all information electronically.

Our clinic owner has therefore decided to invest in a clinical management software system and has assigned me the job of coordinating its development. Based on our discussion today I am summarizing the main functions that we perform (on paper currently) and the software system should provide, to help us conduct our business. I might forget to mention some items here and in case u need further information please don't hesitate to contact me at any time. I will also send you any information that might come to my mind at any later stage.

Our business motto is to deliver best possible healthcare to our patients and we hope that the system that your team will develop will help us achieve excellence. I would be delighted to answer any further questions from your side and please let me know in case you would like to interview other potential user (doctors, nurses, and receptionists) and I will arrange it as well.

ABC is a walk in clinic with ten (10) family doctors, eight (8) nurses and twelve (12) receptionists, some of them work part time. The clinic is open Monday to Friday from 9-8p.m with day shift running from 9-5p.m and an evening shift 5-8p.m. There

are some patients who have a permanent family doctor while others visit on walk in basis. The patients with permanent doctors can call and ask the receptionist to book an appointment by telling her their symptoms/problems. Once booked an appointment can only be cancelled or rescheduled until 24 hours before the scheduled time. No shows or missed appointments are charged 30\$.

Walk in patients are checked in the register, placed in the queue and are seen by the next available doctor. There are two exceptions to this process; a patient may request to be seen by a particular doctor and a patient may jump the wait line in case of an urgent need i.e. the triage process (i.e. chest pain, wound treatment etc.). The default time slot for patient appointment with doctor is 15 minutes but patients with special circumstances can be scheduled for double time (30 minutes).

The clinic maintains a paper file for every patient which includes her name, address and health card information and his or her previous history of visits, treatment and medications and lab results. All first time patients are first required to fill a registration form that contains their basic information and then a new file is created and assigned a unique file number.

Upon patient arrival (both scheduled and walk in) the receptionist verifies the health card, patient address and contact details and then the secretary marks “checked in” status. At the end of the appointment, the secretary marks a “check out” status.

The nurse then takes the patient to an examination room and takes his or her temperature, height, weight blood pressure and brief history of problems/symptoms and notes it down in patient's file. The nurse then hands over this file to the doctor and doctor examines the patient and records his her symptoms, diagnosis, medications, and or lab tests prescribed to the patient. Sometimes doctor refers the patient to a specialist doctor and enters this information in the file also. Specialist doctors usually send a letter about their assessment of the patient and this letter is also added in patients file. When the results of patient's lab tests come back these are also kept in the same patient file. In case of any abnormal results, patient is called back to the clinic to be seen by a doctor.

Patients don't pay for medical services as these are covered by the government in Canada but some special services such as sick notes carry a fee. The receptionist charges these fees and keeps information about the fees and payment status in patient file. The secretaries give all cash money to me and at the end of every week I calculate the total fee payable to each doctor (based on sick notes etc. written by a doctor) and give it to the concerned doctor and they sign a receipt which I keep in the clinic records. The secretaries put a note in patients' files who do not show up for an appointment and then send them a letter to pay 30\$ fee. If the patient does not pay then she is charged when she shows up for next appointment.

Secretaries give me the details and fee money to me and at the end of every month I fill a form add the amounts and deposit the total amount in clinics bank account.

*[It's a lot of manual work for me and I hope you will create an efficient software system for me to automate these processes for me to make my life a little easier hopefully]*

My job responsibilities as a manager include scheduling doctors, nurses and receptionists/secretaries for shifts and then at the end of every two weeks I calculate the number of hours worked for each person. I then provide this information to our accountant (external company hired by the owner) and they take care of payrolls and salaries.