**Iteration 1**

**Product Backlog**​:

Patient:

* As a patient, I want to be able to login to a personalized account with my information in it.
  + If I don’t have an account I want to be able to create my own account and put my own information in it.
* As a patient, I want to be able to schedule appointments with doctors.
* As a patient, I want to be able to check and see when my appointments are.
* As a patient, I want to be able to cancel my appointments.
  + And be able to get a refund if applicable
* As a patient, I want to be able to change my appointment times when able to.
* As a patient, I want to be able to schedule lab times.
* As a doctor, I want to be able to login to a personalized account with my information in it.
  + I should have special permissions to view patients’ information.
* As a doctor, I want to be able to see when my scheduled appointments are.
* As a doctor, I want to be able to see nurse schedules.
* As a doctor, I want to be able to see who my appointment is with.
* As a doctor, I want to be able to refer to different patients for lab times and follow up appointments.
* As a doctor, I want to be able to accept/decline scheduled appointments with me.
* As a doctor, I want to be able to adjust my schedule.
* As a doctor, I should be able to transfer patients to MRI, Ct and other lab tests.
* As a doctor, I want to be able to view/add prescriptions to a patient's record.

Nurse:

* As a Nurse, I want to be able to login to a personalized account with my information with it.
  + I should have special permissions to view other patients information.
* As a nurse, I want to be able to see when my scheduled appointments are.
* As a nurse I want to see what doctor I am scheduled with for each appointment.
* As a nurse I can adjust my schedule and change my availability.
* As a nurse, I should be able to see doctors’ schedules.
* As a nurse, I want to be able to view prescriptions to a patient’s record.

Admin:

* As an admin, I want to be able to add/delete patients, doctors and nurses.
* As an admin, I want to be able to see patients’ appointments.
* As an admin, I want to be able to initiate fee payment when patients cancel appointments within 24 hours of their appointment.

**Sprint planning meeting:**

* When: Monday March 1st after our daily scrum meeting
* Where: Computer Science lab in Math Science
* Our goal is to create a prototype login page reading information from file I/ O.
* We plan to import photos and pictures to our UI to make it more interesting to look at (than the grey screen in javaFX)

**Sprint Backlog:**

* As a customer, I want to be able to login to a personalized account with my information in it (Lougheed)
* As a Nurse, I want be able to login to a personalized account with my information with it (Alexis)
  + I should have special permissions to view other patients information (Hrithvik)
* As a doctor, I want to be able to login to a personalized account with my information in it (Michael)
  + I should have special permissions to view other patients information (Alex)

**Daily scrum meeting:**

* When: Monday, Wednesday and Friday at 3pm - 3:15pm
* Where: Computer Science lab in Math Science
* In the meetings this week, we decided on the program structure and what IDE and programming language we will use. (Java and Eclipse). We also decided how to store our data (.txt files in a local manner). In addition, we went over the different types of meetings and figured out each other schedules for meeting times.

**Sprint review meeting:**

* When: Thursday March 3rd 2020, at the end of SENG 300 lecture from 2:00 pm - 3:30 pm
* Where: Engineering lounge
* Each group member demonstrated the task they worked on. Lougheed ran into issues with file I/O where organizing data for each user became a problem. The members discussed this and suggested splitting the files into smaller and easier text files to use. Michael successfully created a log-in page for the doctors and demonstrated the working product to the group. The group made suggestions to the design and the functionalities.

**Retrospective meeting:**

* When: Thursday 11:30 - 12:00pm
* Where: Engineering lounge
* Things to keep doing: Continue having daily scrum meeting, update group members frequently on individual process
* Things to stop doing: Stop veering off topic on meetings and to have enough time for debugging after initial coding.
* New things to try: Look into databasing implementation
* We plan to have a basic scheduler implemented by the next iteration, allowing users to schedule appointments.

**Iteration 2**

*Updated product backlog*

*Updated/new user stories are indicated in this colour*

**Patient:**

* As a patient, I want to be able to login to a personalized account with my information in it.
  + If I don’t have an account, I want to be able to create my own account and put my own information in it.
* As a patient, I want to see a doctor's availability in order to make appointments.
* As a patient, I want to be able to schedule appointments with doctors.
* As a patient, I want to be able to check and see when my appointments are.
* As a patient, I want to be able to cancel my appointments.
* As a patient, I want to be able to see my prescription records.
* As a patient, I want to be able to change my appointment times when able to.
* As a patient, I want to be able to schedule lab times.
  + As a patient, I want to be able to verify my referral from the doctor so that I am allowed to book appointments for labs.

**Doctor:**

* As a doctor, I want to be able to login to a personalized account with my information in it (​including my department).
  + I should have special permissions to view my patients’ information.
    1. This includes any referrals, previous test results and the patient’s family contact info.
* As a doctor, I want to be able to see when my scheduled appointments are.
* As a doctor, I want to be able to see nurse schedules.
* As a doctor, I want to be able to see who my appointment is with.
* As a doctor, I want to be able to refer to different patients for lab times and follow up appointments.
* As a doctor, I want to be able to accept/decline scheduled appointments with me.
* As a doctor, I want to be able to adjust my schedule.
  + I should be able to update my availability as well.
* As a doctor, I should be able to transfer patients to MRI, CT and other lab tests.
* As a doctor, I want to be able to view/add prescriptions to a patient's record.
* As a doctor, I should be able to see if I am assigned for general hospital duties or emergency room duties (there should be no overlap).
* As a doctor, I should be able to request to change my assigned duties.
* As a Nurse, I want to be able to login to a personalized account with my information with it.
  1. I should have special permissions to view other patients' information.
* As a nurse, I want to be able to see when my scheduled appointments are.
* As a nurse I want to see what doctor I am scheduled with for each appointment.
* As a nurse I can adjust my schedule and change my availability.
* As a nurse, I should be able to see doctors’ schedules.
* As a nurse, I should be able add/delete patients/doctors/nurses.
* As a nurse, I want to be able to view prescriptions to a patient’s record.

**Admin:**

* As an admin, I want to be able to add/delete patients, doctors and nurses.
* As an admin, I want to be able to see patients’ appointments ​(but not their records).
* As an admin, I want to be able to initiate fee payment when patients cancel appointments within 24 hours of their appointment.
* As an admin, I want to be able to track a penalty system for no-show patients
  1. Ex.) Three no-shows mean that the patient can no longer book appointments at this hospital.

*Sprint planning meeting*

* When: Monday, March 9th 12:00 - 1:30 pm
* Where: Computer Science lab in Math Sciences
* Who: all group members attended
* Our sprint goal is to implement a scheduling functionality so that doctors and nurses can view and add/delete to their schedules.
* The updated sprint backlog delivered during this meeting is listed below.

*Updated Sprint Backlog*

* As a doctor/nurse, I want to see my personal information under my account.
  + Priority: #1
  + Tasks: Interface to view/edit basic personal information such as name, date of birth, emergency contact info, department, etc.
* As a doctor, I want to be able to view/add prescriptions to a patient's record.
  + Priority: #2
  + Tasks: Control permissions (admins should be able see patient’s record)
* As a patient, I want to be able to schedule appointments with doctors.
  + Priority: #3
  + Tasks: Scheduler interface, code to differentiate available time slot from unavailable time slot, option to choose a doctor of your choice

*Daily scrum meeting*

* When: March 10th and March 12th after SENG 300 lecture
* Where: ENGG Lounge
* Who: all group members attended
* Key points of the meeting(s): We discussed what each of us will do (from the list of sprint backlog) and also talked about any barriers we would run into. We had a slight disagreement on what the scheduler interface would look like and its functionalities.

*Sprint review meeting*

* When: March 16th from 2:00 pm - 3:30 pm
* Where: Online using Zoom
* Who: all group members attended
* All members discussed the tasks that they were currently working on. Lougheed developed a framework for the schedule interface and Alexis was working on controlling the permissions functionality so that only doctors/nurses would be able to view certain patient information. Michael was doing work on the personalized account section of the code. We also reviewed and updated the product backlog by adding more detailed tasks for each user story.

*Retrospective meeting*

* When: March 18th from 2:00 pm - 2:30 pm
* Where: Online using Zoom
* Who: all group members attended
* Things to keep doing: Communicating well between each other, keeping an updated and detailed product/sprint backlog
* Things to stop doing: Focus on one task at a time rather than going back and forth between different functionalities
* New things to try: Allocate more time for debugging, get used to Zoom meetings instead of in-person meeting

**Iteration 3**

*Final product backlog*

**Patient:**

* As a patient, I want to be able to login to a personalized account with my information in it.
  + If I don’t have an account, I want to be able to create my own account and put my own information in it.
* As a patient, I want to see a doctor's availability in order to make appointments.
* As a patient, I want to be able to schedule appointments with doctors.
* As a patient, I want to be able to check and see when my appointments are.
* As a patient, I want to be able to cancel my appointments.
* As a patient, I want to be able to see my prescription records.
* As a patient, I want to be able to change my appointment times when able to.
* As a patient, I want to be able to schedule lab times.
  + As a patient, I want to be able to verify my referral from the doctor so that I am allowed to book appointments for labs.

**Doctor:**

* As a doctor, I want to be able to login to a personalized account with my information in it (​including my department).
  + I should have special permissions to view my patients’ information.
    1. This includes any referrals, previous test results and the patient’s family contact info.
* As a doctor, I want to be able to see when my scheduled appointments are.
* As a doctor, I want to be able to see nurse schedules.
* As a doctor, I want to be able to see who my appointment is with.
* As a doctor, I want to be able to refer to different patients for lab times and follow up appointments.
* As a doctor, I want to be able to accept/decline scheduled appointments with me.
* As a doctor, I want to be able to adjust my schedule.
  + I should be able to update my availability as well.
* As a doctor, I should be able to transfer patients to MRI, CT and other lab tests.
* As a doctor, I want to be able to view/add prescriptions to a patient's record.
* As a doctor, I should be able to see if I am assigned for general hospital duties or emergency room duties (there should be no overlap).
* As a doctor, I should be able to request to change my assigned duties.
* As a Nurse, I want to be able to login to a personalized account with my information with it.
  1. I should have special permissions to view other patients' information.
* As a nurse, I want to be able to see when my scheduled appointments are.
* As a nurse I want to see what doctor I am scheduled with for each appointment.
* As a nurse I can adjust my schedule and change my availability.
* As a nurse, I should be able to see doctors’ schedules.
* As a nurse, I should be able add/delete patients/doctors/nurses.
* As a nurse, I want to be able to view prescriptions to a patient’s record.

**Admin:**

* As an admin, I want to be able to add/delete patients, doctors and nurses.
* As an admin, I want to be able to see patients’ appointments ​(but not their records).
* As an admin, I want to be able to initiate fee payment when patients cancel appointments within 24 hours of their appointment.
* As an admin, I want to be able to track a penalty system for no-show patients. Ex- Three no-shows mean that the patient can no longer book appointments at this hospital

*Sprint planning meeting*

* When: Monday, March 25th 12:00 - 1:30 pm
* Where: Online via Zoom
* Who: all group members attended
* Our sprint goal is to make final changes such as verifying appointments, saving patient information for review and adding referrals and lab tests.
* The updated sprint backlog delivered during this meeting is listed below.

*Updated Sprint Backlog*

* As a doctor/nurse, I want to verify and accept appointment requests.
  + Priority: #1
  + Tasks: Interface to accept/decline upcoming patient appointments.
* As a doctor, I want to be able to view/edit a patient's record.
  + Priority: #2
  + Tasks: Control permissions (admins should be able see patient’s record)
* As a patient, I want to be able to view my lab test appointments and results.
  + Priority: #3
  + Tasks: Interface to show any upcoming lab tests and viewing results.

*Daily scrum meeting*

* When: March 27th and March 29th
* Where: Online via Zoom
* Who: all group members attended
* Key points of the meeting(s): We discussed what each one of us would do and how we would go about implementing referrals and lab tests.

*Sprint review meeting*

* When: April 1st
* Where: Online using Zoom
* Who: all group members attended
* Members discussed what they were working on. Alexis was working on saving and editing personal information, Lougheed and Hrithvik were working on verifying and deleting appointments. Michael was working on the final touches to the GUI.

*Retrospective meeting*

* When: April 4th
* Where: Online using Zoom
* Who: all group members attended
* Things to keep doing: Communicating well between each other and running manual tests on the software to check if requirements have been met.
* New things to try: Allocate more time for testing and get more people to try out the software.

**Test Cases:**

The software was tested by the team members and acquaintances of team members manually by going over different user stories to observe how the software responded. Some of the basic test cases covered were:

**Test 1** – Login as a user (doctor, patient nurse)

* Purpose: Check that a user can successfully login.
* Setup: Software has been setup on a computer with JavaFX and all necessary libraries installed. The software system has one patient, one Doctor (also the admin), one nurse in the database.
* Action: User enters a login ID and password.
* Expected Result: If the credentials are correct, user successfully logs in. An error message displayed otherwise.
* Teardown: User logs out.

**Test 2** – Login as a patient and book an appointment

* Purpose: Check that a user can successfully login and book an appointment with a doctor based on availability.
* Setup: Software has been setup on a computer with JavaFX and all necessary libraries installed. The software system has one patient, one Doctor (also the admin), one nurse in the database.
* Action: The user enters a correct login id and password to login, selects book appointment, chooses a time slot based on availability.
* Expected Result: A booking appointment awaiting verification from the Doctor is made.
* Teardown: Cancel booking appointment.

**Test 3** – Login as a Doctor and verify (accept) or cancel an appointment.

* Purpose: Check that a doctor can successfully login and verify or cancel an appointment booking.
* Setup: Software has been setup on a computer with JavaFX and all necessary libraries installed. The software system has one patient, one Doctor (also the admin), one nurse in the database.
* Action: The user enters a correct login id and password to login, views upcoming appointments, selects an appointment and chooses to verify or cancel it.
* Expected Result: An upcoming booking appointment has been cancelled or verified.
* Teardown: Verified appointment is now deleted.