Unit 6: Hands-on with UML

Seminar 3: Working with UML

In this week's activity, you are going to get some hands-on practice with UML, with a scenario, which is described below. You have been asked to develop UML diagrams for a doctor's surgery based on the following scenario:

Before a patient can see a doctor, or nurse, they will be required to make an appointment. The appointment will be made by the receptionist. However, before making the appointment, the receptionist needs to ask the patient which doctor they would like to see, and whether the appointment is standard consultation or an emergency appointment. The receptionist will use this information to check the appointment schedule, find an available appointment and make the booking. During the appointment itself, the doctor may issue the patient with a prescription. It is possible for a patient to request a repeat prescription be raised. Receptionists are able to cancel appointments as well as create them. A doctor at the clinic may have a maximum of 500 patients registered to them at any one time.

You should create:

- A class diagram for the system.
- A sequence diagram for booking an appointment.
- An activity diagram for a receptionist booking an appointment.

Upload your diagrams to the discussion forum to allow your peers to see the range of potential solutions.

We will discuss your diagrams in this week's seminar as this directly links to the upcoming summative assessment.

Remember to record your results, ideas and feedback in your e-portfolio as well.

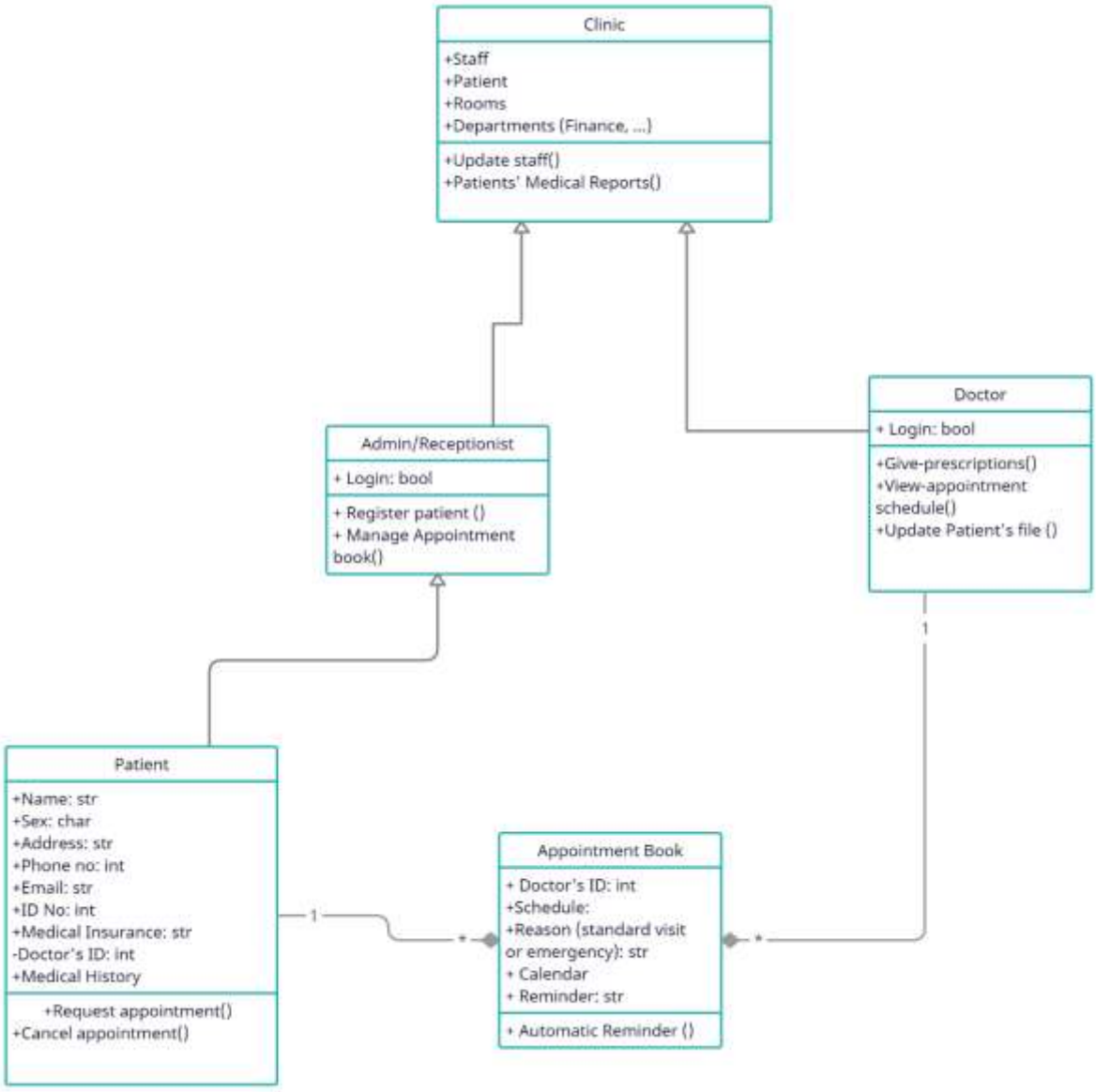
My attempts:

Hi,
Kindly find below the diagrams for booking an appointment. I tried 3 different online tools:

- Class diagram - done with Creately App
- Sequence diagram - with Visual Paradigm
- OnlineActivity diagram - with Lucidchart

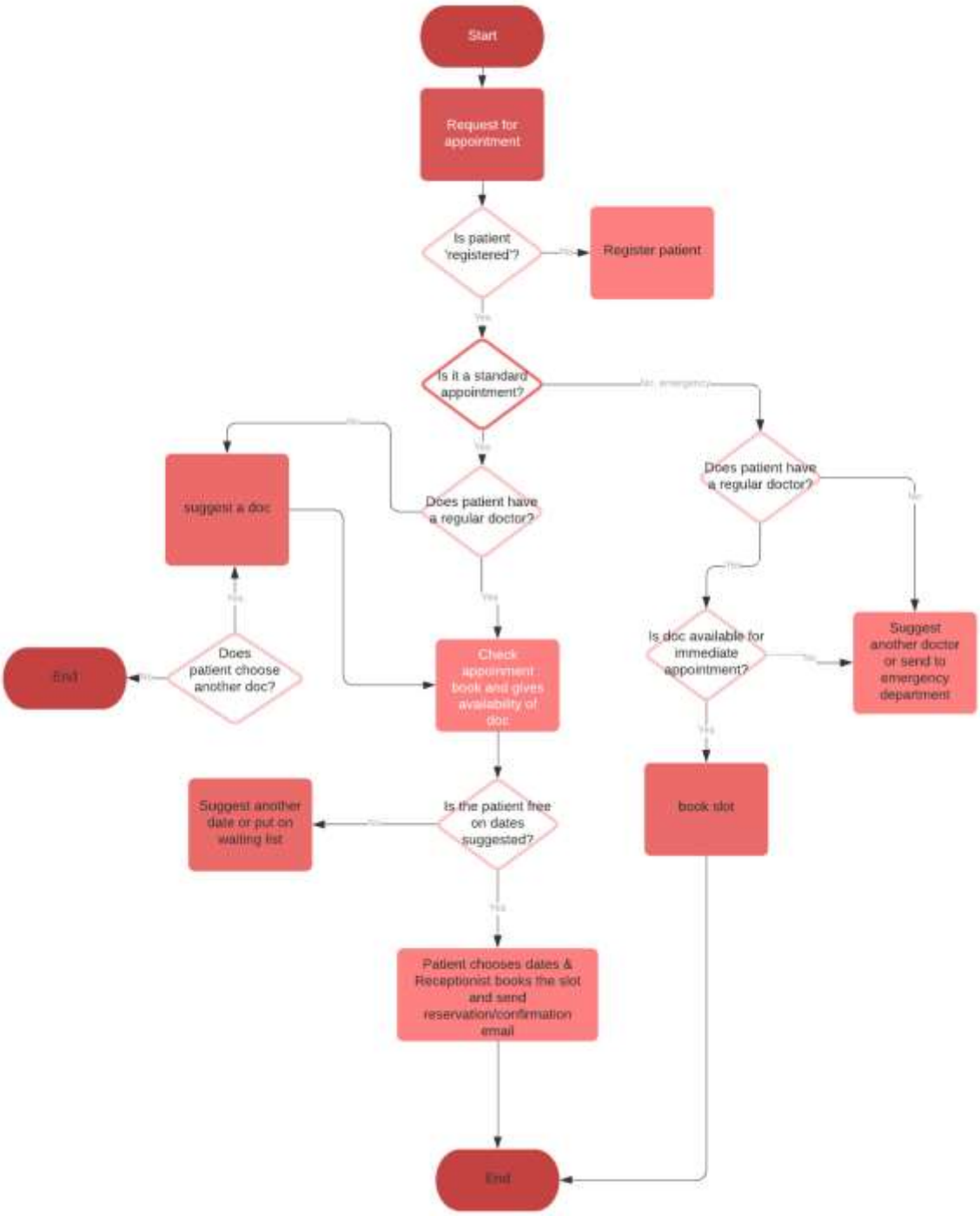
I had a lot of problems doing the sequence one online...

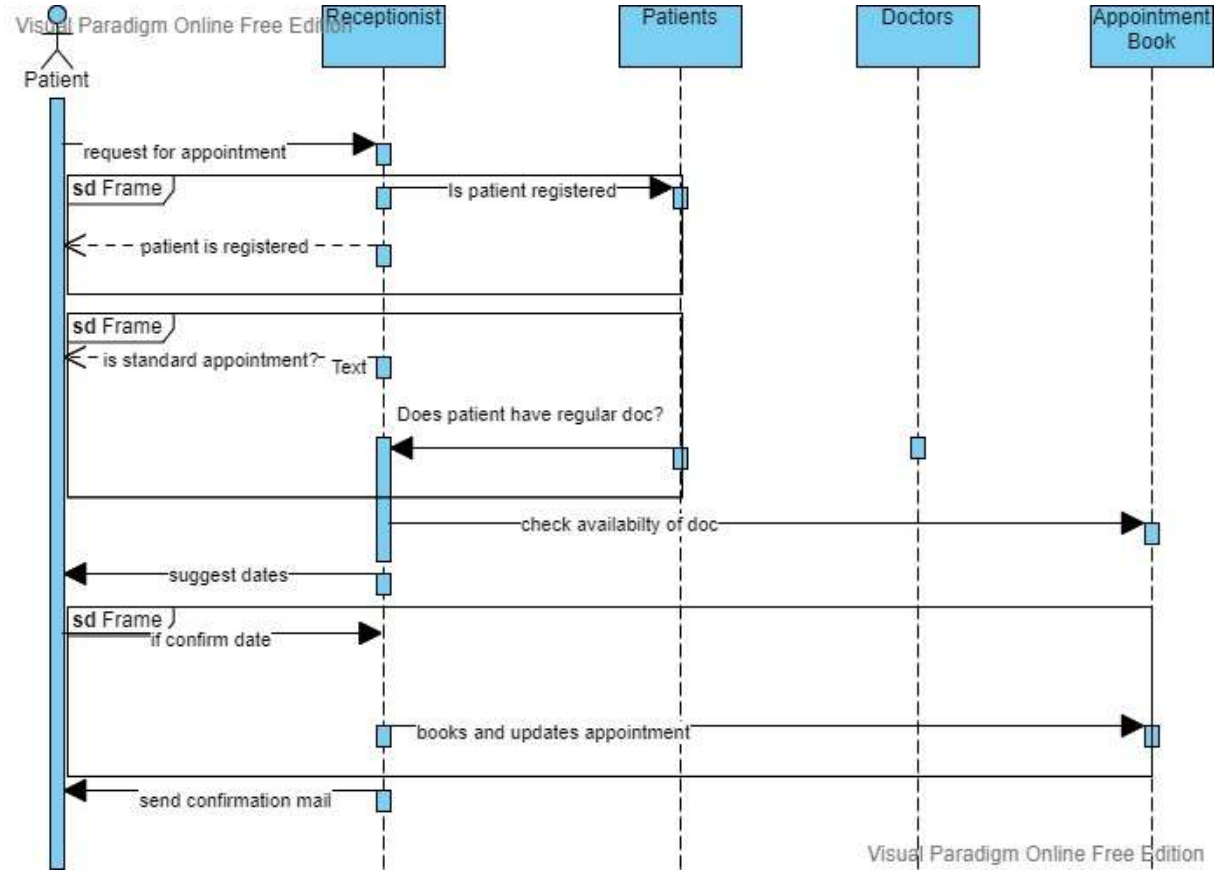
and there's room for improvement...


Clinic
+Staff
+Patient
+Rooms
+Departments (Finance, ...)
+Update staff()
+Patients' Medical Reports()
Admin/Receptionist
+ Login: bool
+ Register patient ()
+ Manage Appointment book()
Doctor
+ Login: bool
+Give-prescriptions()
+View-appointment schedule()
+Update Patient's file ()
Patient
+Name: str
+Sex: char
+Address: str
+Phone no: int
+Email: str
+ID No: int
+Medical Insurance: str
-Doctor's ID: int
+Medical History
+Request appointment()
+Cancel appointment()
Appointment Book
+ Doctor's ID: int
+Schedule:
+Reason (standard visit or emergency): str
+ Calendar
+ Reminder: str
+ Automatic Reminder ()
1
*
1
*

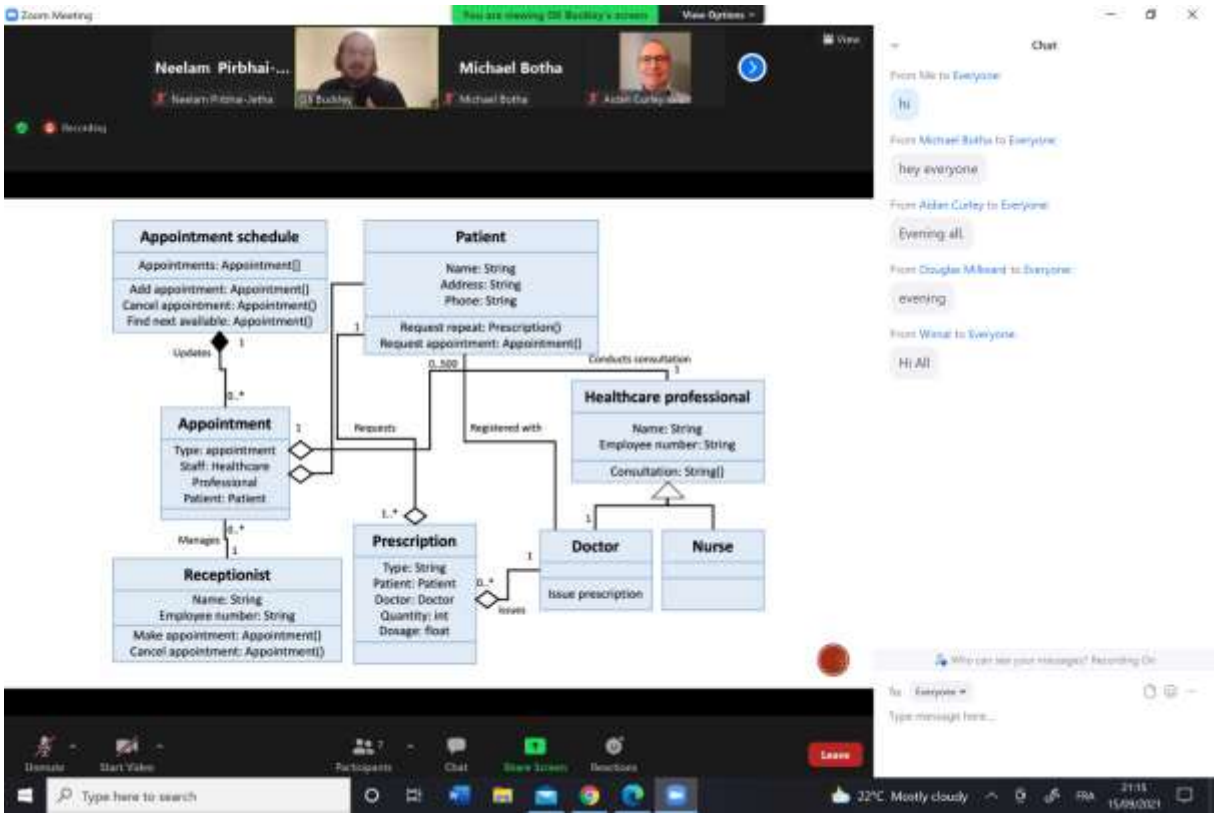
Activity Diagram: Patient Appointment App

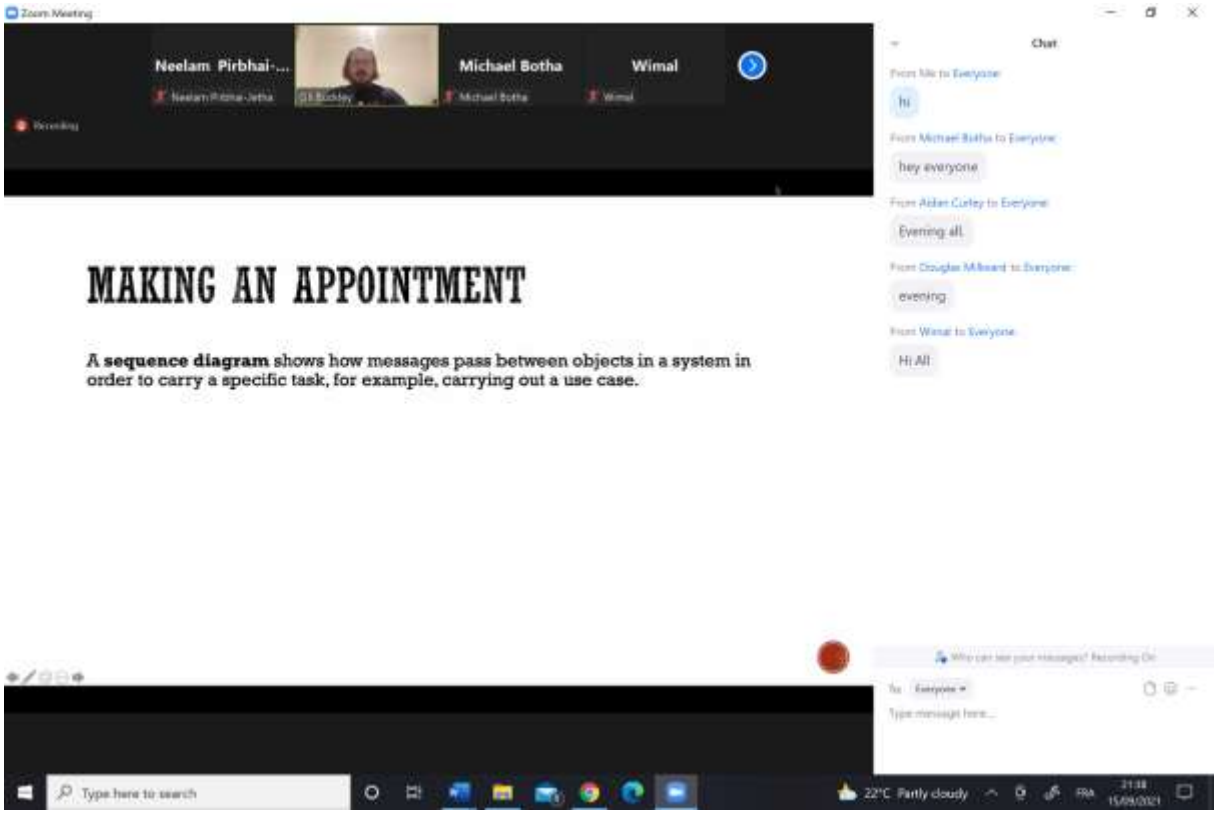
Neelam Pottiraj-Jethva | September 12, 2021

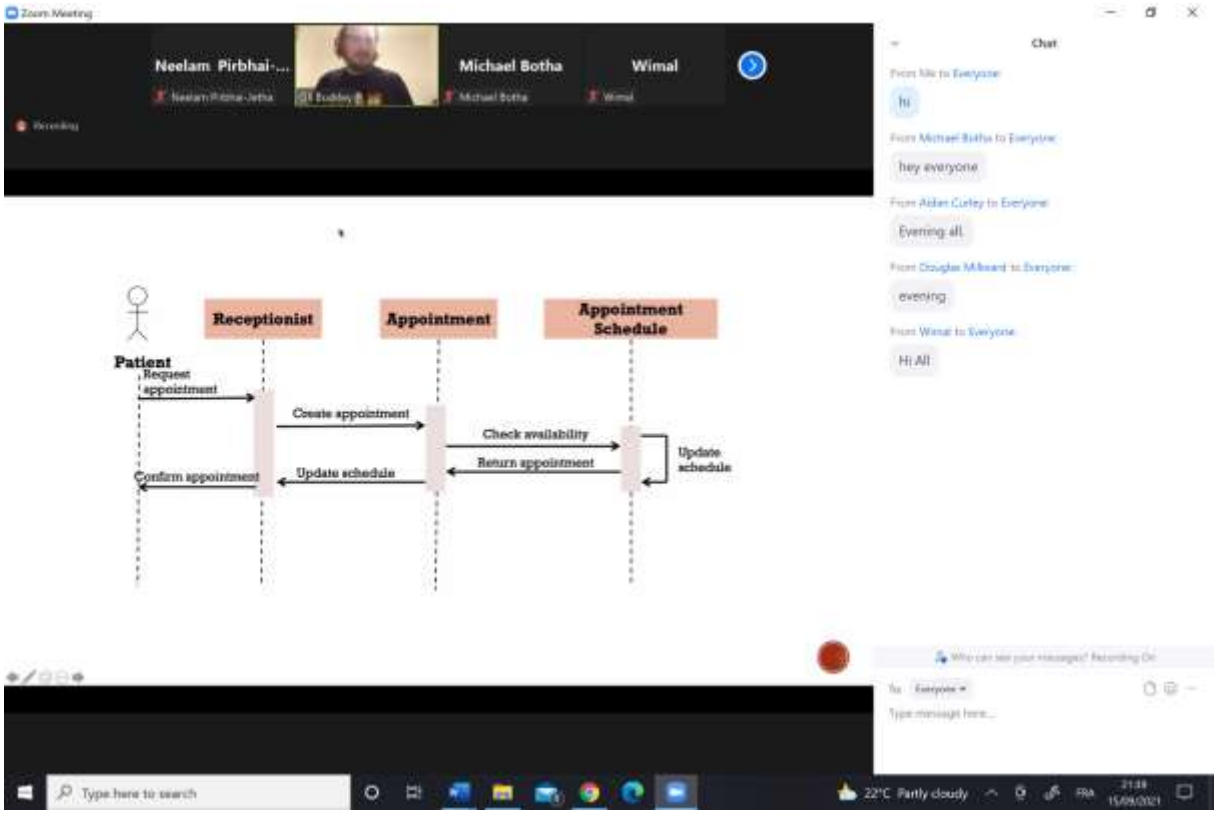


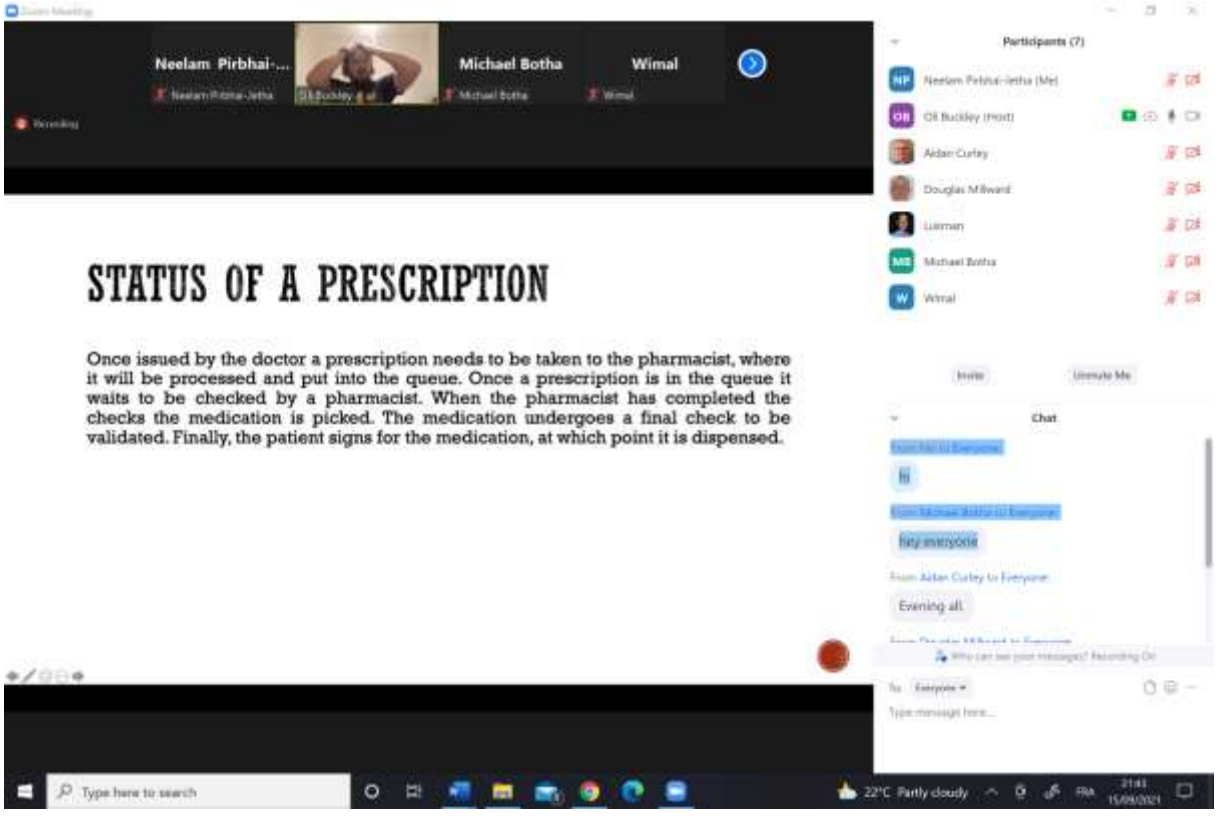


Screenshots below are the answers by the tutor, Dr Buckley




Zoom Meeting
Neelam Pirbhai-...
Michael Botha
Wimal
Recording
Chat
From Me to Everyone:
hi
From Michael Botha to Everyone:
hey everyone
From Aidan Curley to Everyone:
Evening all.
From Douglas Millward to Everyone:
evening
From Wimal to Everyone:
Hi All
MAKING AN APPOINTMENT
A sequence diagram shows how messages pass between objects in a system in order to carry a specific task, for example, carrying out a use case.
Who can see your messages? Recording On
To: Everyone
Type message here...
Type here to search
22°C Partly cloudy
ENG





STATUS OF A PRESCRIPTION

Once issued by the doctor a prescription needs to be taken to the pharmacist, where it will be processed and put into the queue. Once a prescription is in the queue it waits to be checked by a pharmacist. When the pharmacist has completed the checks the medication is picked. The medication undergoes a final check to be validated. Finally, the patient signs for the medication, at which point it is dispensed.