

CSE471 Lab Project

Topic: COVID Patient Tracker System

Sequence Diagram and State machine diagram

Group No: 05

Section: 08

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Scenario:

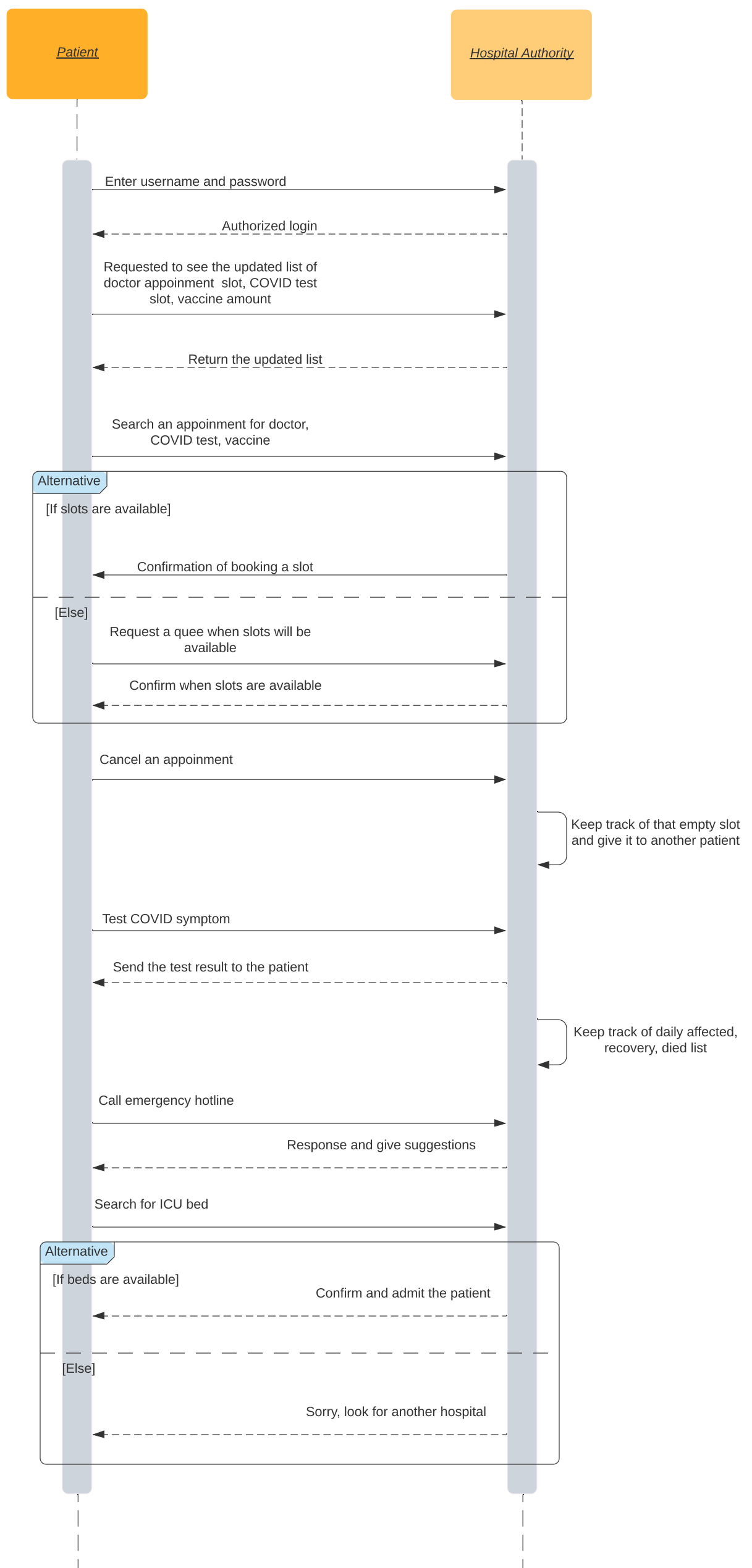
There are mainly three types of actors in the COVID patient tracker system. They are the patient, the hospital authority and the government. The primary actor of this system is patient whereas the hospital authority and the government are secondary actor respectively. To use this system both the actors first need to login using their unique username and password. They can choose their preferred language either Bengali or English.

After logging, patient can view their preferred hospital's updated list of available ICU beds, ambulance, emergency contact number, doctor's appointment time, oxygen availability, vaccine amount etc. After viewing the availability patient can book a doctor's appointment, can book a COVID test date, can book a vaccine date. If they find there is no slots available they can request to add a queue on that slot if that slot is open again, then they can book their desired slot. Also they can call an emergency ambulance or emergency doctors when they needed. The system shows a notification to the patient if they successfully booked their slot. Patient can anytime cancel their booking.

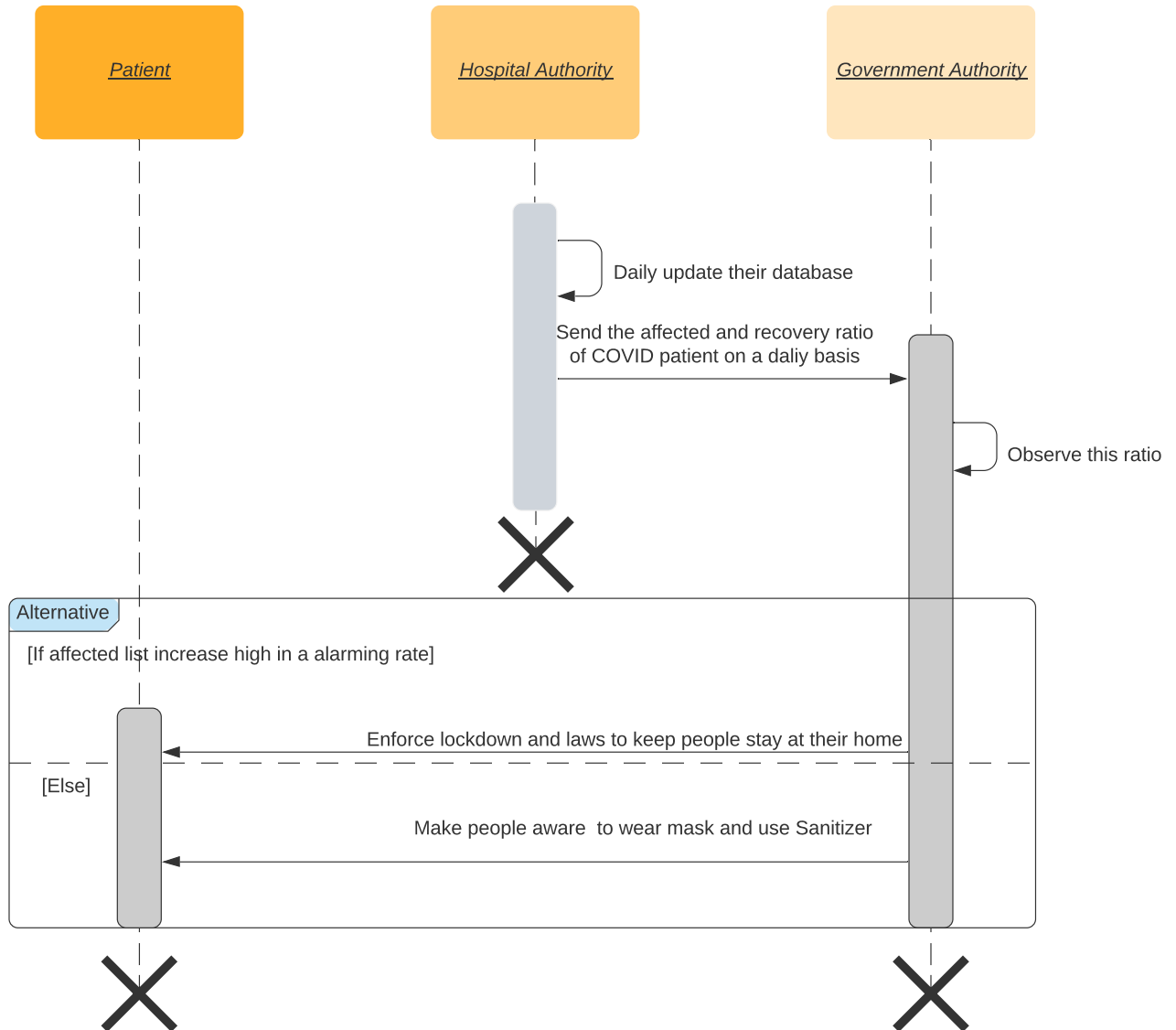
The hospital authority can update any information of their page on a daily basis such as updated list of their vaccine amount, ICU beds, doctor's appointments, emergency contact, daily COVID tests, affected persons, died persons etc. The authority will test every person's COVID variant and send a confirmation to the person that he or she affected or not. Also when a patient booking for an appointment the authority verifies their login and appointment and approve their booking by sending a confirmation. Moreover, the hospital authority will send the daily updated COVID ratio result of affected, died, recovery list to the government.

Government can login this system using their unique username and password. They can see the updated COVID ratio list sent from the hospital authority. After observing the ratio, they can enforce lockdown in the red zone area where the affected ratio or death ratio is high. Also they can create awareness to the common people using this system by sending SMS like "Wearing mask, Sanitizing hand" etc.

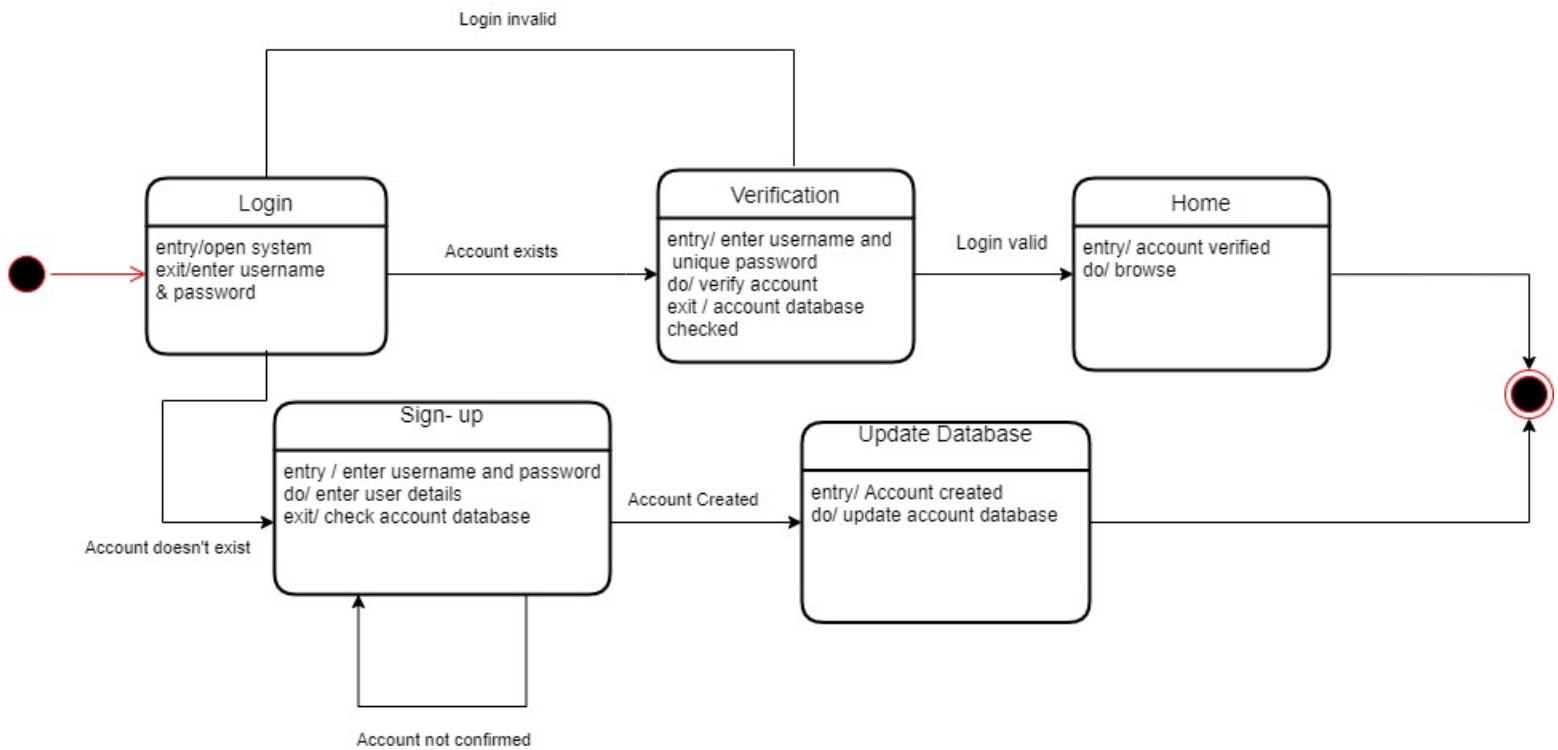
Sequence diagram for Patient and Hospital Authority:



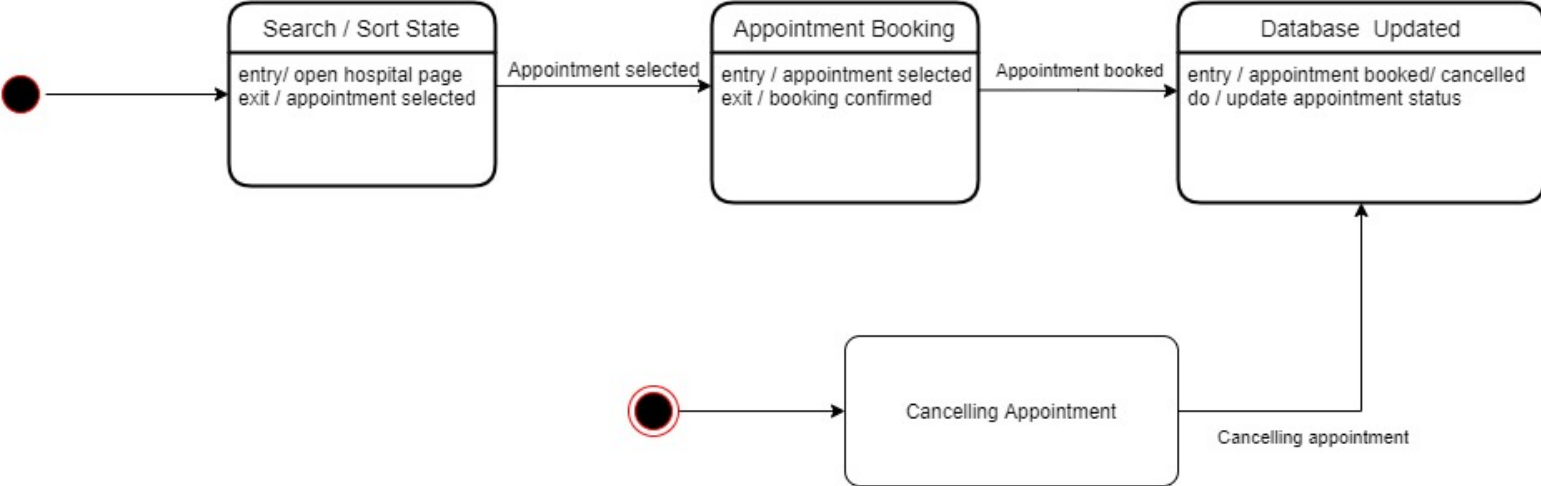
Sequence diagram for Hospital Authority and Government Authority:



State Machine Diagram for Login



State Machine Diagram for Appointment Database



State Machine Diagram for Hospital Management

