

CLINIC MANAGEMENT SYSTEM

Introduction

Clinic Management System is created to help the facility day by day activity before this is done physically. This framework will include all the clinic activity beginning from patient enlistment until charging the patient. The significant thing is it will end up simpler for the information record and recovery. This framework will have the option to create an account to communicate with the doctors easily without going to the clinic and waiting there. For instance, the number of patients every day and all-out gathering every day. This framework can check the stock for the prescription in the facility. The objective client for this framework is the staff of the facility, specialist and furthermore the administration. The prototyping approach is applied while building up this framework. This will include an iterative procedure to make this framework usable and simple to use by the client. The structure for the framework is utilizing the System Development Life Cycle (SDLC) approach. The plan will include a substance relationship chart (ERD) and Data Flow Diagram (DFD) to demonstrate the sensible stream for the framework. For the usage, Apache is utilized as a web server, MySql as a database, PHP as a scripting language and web pilgrim as a program. The fundamental significance while building up any framework is to make the framework usable. The specialist and staff give their assessment and furthermore conclusion to make the framework increasingly usable for the facility day by day activity. By and large, this framework can bolster the day by day clinic activity dependent on assessment from the genuine client and the framework can play out the assignment accurately.

Use Case Description:

Use Case Name: Book Appointments	ID: 001	Priority: High
Actor: Patients		
Description: ● Patient can book appointments to see the doctor or emergency room staff		
Trigger: Type: ☒ External ☐ Temporal		
Preconditions: Patient has to book an appointment that the click needs at what date they need and what time		
Normal Course: Information for Steps: ● Patient will click on the application ● Patient will log in to the application ● Patient will select insurance or select paying for myself. ● Patient will select appointment option ● Patient will select Doctor information ● Patient will select the Department ● Patient will have the opportunity to choose the date, time, and the doctor that they want.		
Postconditions: ● Patient can view and choose the dates, time and doctor availability.		

Use Case Name: Email Doctor	ID: 002	Priority: High
Actor: Patients		
Description: ● Patient can send an Email to the doctor any time for any question.		
Trigger: Type: ☒ External ☐ Temporal		
Preconditions: Patient can send Email to any doctor that patient wants, for follow up and question.		
Normal Course: Information for Steps: ● Patient will click on the application ● Patient will log in to the application ● Patient will select Doctor information ● Patient can see the Doctor if he/she is available: green icon for available and red if not available. ● Patient can send Email to the Doctor even if the doctor is not available. ● Patient will choose the doctor Email. ● Patient will have the opportunity to send questions any time.		
Postconditions: ● Patient can view the Email that the patient sends to the doctor and any response from the doctor, any time in the application.		

Use Case Name: Check emergency room wait time	ID: 003	Priority: High
Actor: Patients		
Description: • Patient will click the emergency room option to access emergency room wait times. This step will happen after accessing the app, booking appointments, and choosing the doctors that they need.		
Trigger: Type: ☒ External ☐ Temporal		
Preconditions: • Patient has to choose the emergency room to check the availability and wait time.		
Normal Course: Information for Steps: • Patient will click on the emergency room option • Patient will have opportunity to check the availability in the emergency room and the time		
Postconditions: • Users can view and emergency room option the availability in the emergency room and the time.		

Use Case Name: Add your insurance information	ID: 004	Priority: High
Actor: Patients		
Description: ● Patient can add their insurance information on the website.		
Trigger: Type: ☒ External ☐ Temporal		
Preconditions: Patient can check their insurance information plan and more.		
Normal Course: Information for Steps: ● Patient will click on the application ● Patient will log in to the application ● Patient will select insurance ● Patient will enter their insurance information . ● Patient can view insurance information.		
Postconditions: ● Patient can view insurance information and their plan.		

Use Case Name: Paying for myself	ID: 005	Priority: High
Actor: Patients		
Description: ● Patient can pay if they do not have insurance.		
Trigger: Type: ☒ External ☐ Temporal		
Preconditions: ● Patient can choose to pay for themselves.		
Normal Course: Information for Steps: ● Patient will click on the application ● Patient will log in to the application ● Patient will select insurance ● Patient will select I don't have insurance paying for myself ● Patient can view the amount ● Patient can choose method of payment ● Patient will enter card information		
Postconditions: ● Patient can view the amount and choose method payment. ● Patient can choose any method payment to pay the bill		

Use Case Name: View doctor prescription	ID: 006	Priority: High
Actor: Patients		
Description: • Patient can take the prescription from the doctor by hand or an Email.		
Trigger: Type: ☒ External ☐ Temporal		
Preconditions: • Patient can go to the pharmacy and give them the insurance number or the name to receive the prescription.		
Normal Course: Information for Steps: • Patient will click on the application • Patient will log in to the application • Patient will select view doctor prescription • Patient can view the doctor's prescription and order refill medication.		
Postconditions: • Patient can view doctor prescription and order refill prescription		

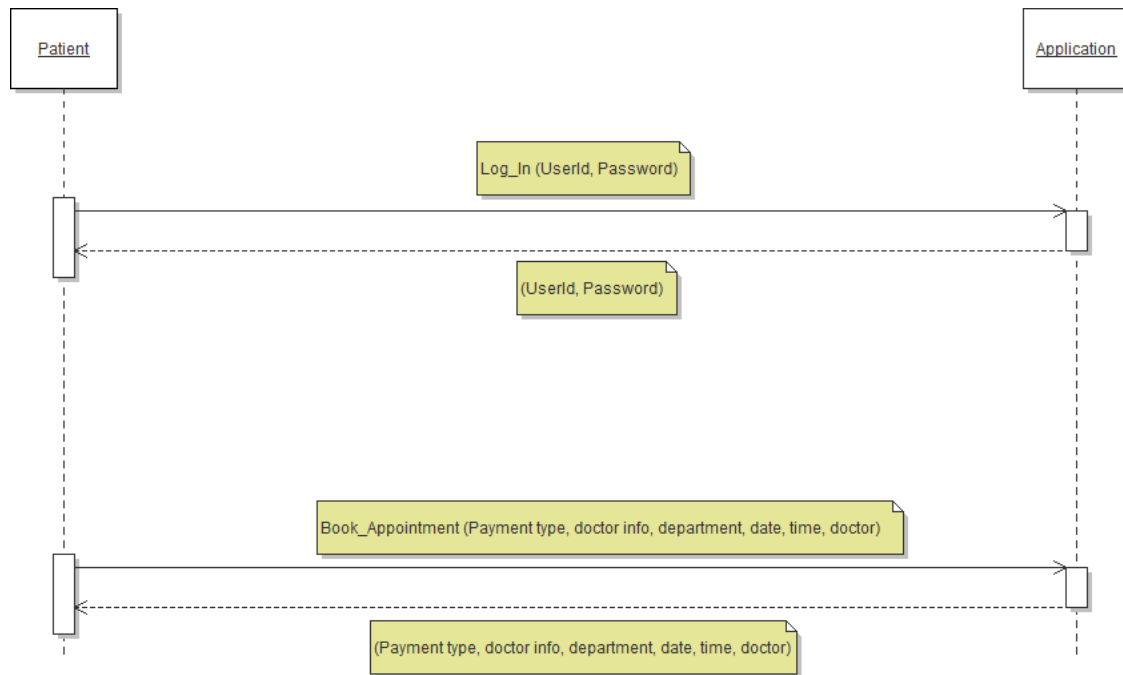
Use Case Name: Doctor email patients	ID: 007	Priority: High
Actor: Patients		
Description: Patients can receive an email from the doctor.		
Trigger: Type: ☒ External ☐ Temporal		
Preconditions: Patients can receive an email from the doctor, for follow up.		
Normal Course: Information for Steps: - Patient will click on the application - Patient will log in to the application - Patient will select email - Patient can see the Doctor email and reply		
Postconditions: Patient can view the Email that the doctor sends to the patient and reply to the doctor, any time in the application.		

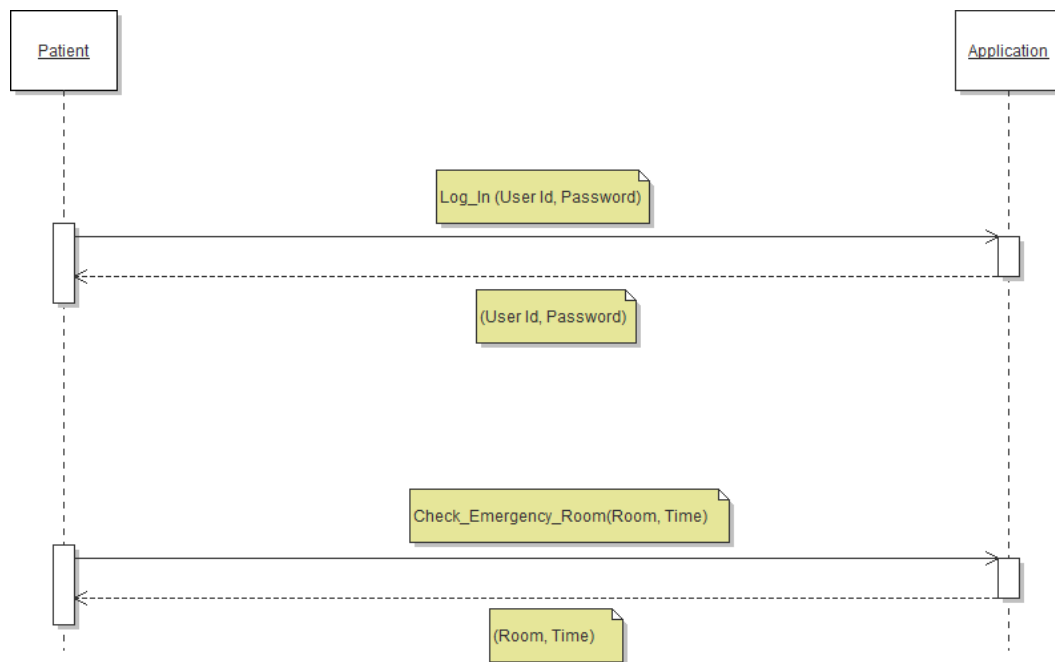
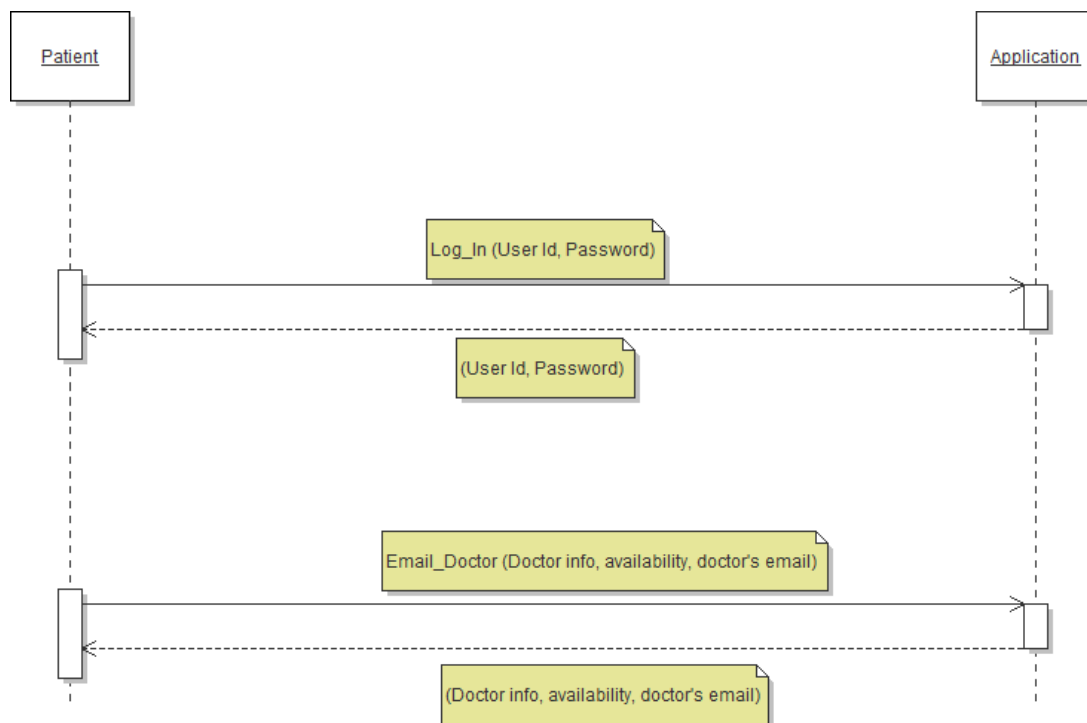
Use Case Name: Check medical inventory	ID: 008	Priority: High
Actor: Patients		
Description: ● Patient will click on the medical inventory icon to check if the medicines are available or not. This action will happen after the patient receives their prescription from the doctor.		
Trigger: Type: ☒ External ☐ Temporal		
Preconditions: ● Patient have the availability to choose the same medicines that the doctor gives in the prescriptions also they can read some information about the medicines.		
Normal Course: Information for Steps: ● Patient will click on the medicine inventory ● Patient will have the opportunity to search to look for the medicines by the name or serial number. ● Patient will add the medicines to the cart ● Patient will enter their zip code to view and choose the nearest pharmacy.		
Postconditions: ● Patient can view medicine inventory and read some information about it.		

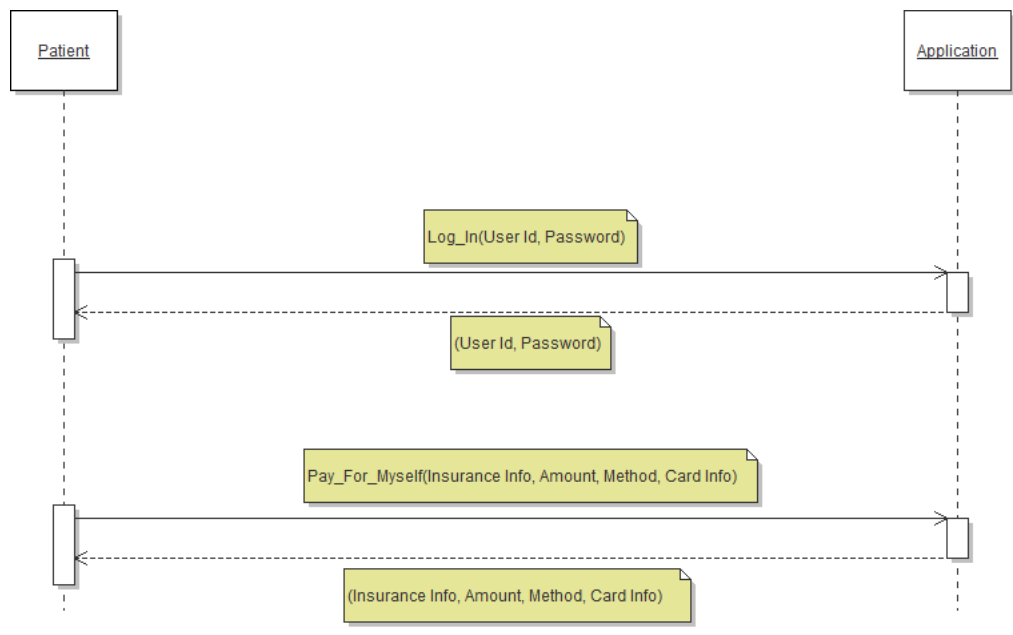
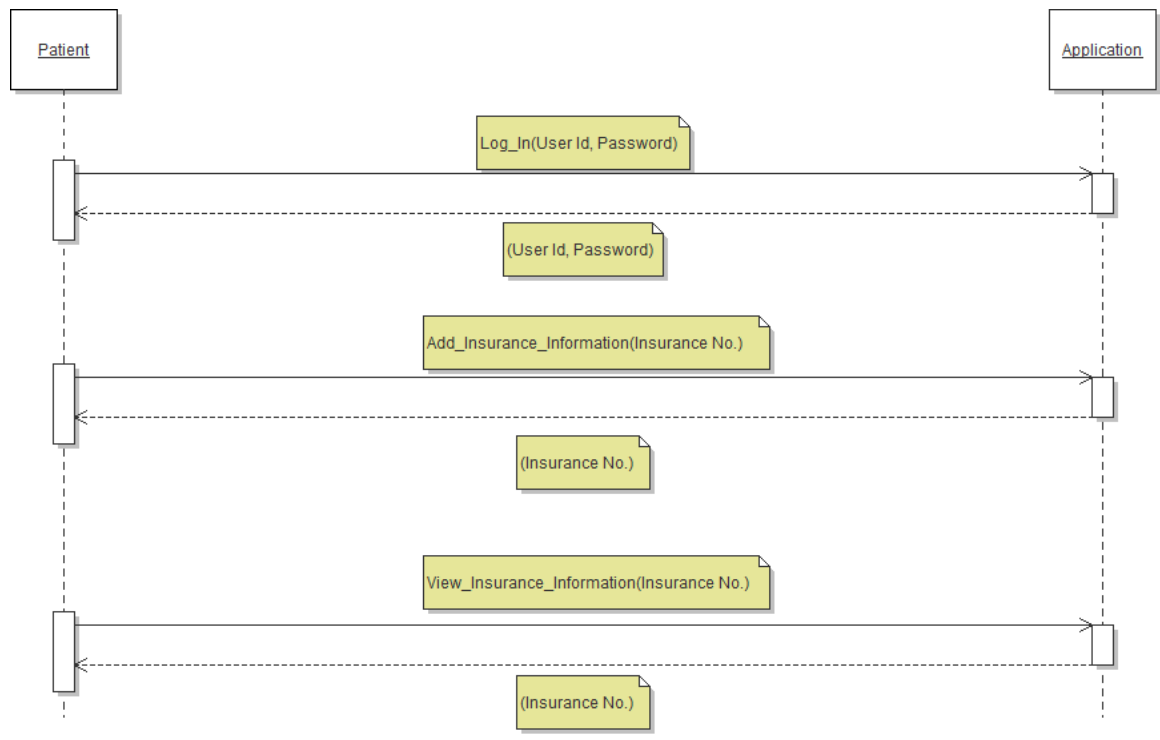
Use Case Name: Check health History	ID: 009	Priority: High
Actor: Patients		
Description: • Doctor can view their patient's health history by clicking the health history icon. This action will happen before and after the doctor checks on their patient. Also, it helps the patient to see their condition.		
Trigger: Type: ☒ External ☐ Temporal		
Preconditions: • Doctor can click the health history of their patients when they get an appointment. It will assist the doctor to see the patient's conditions before their visit.		
Normal Course: Information for Steps: • Patient can click in health history icon • Patient can view their health history • Doctor can click in health history icon • Doctor can review their patient health history • Doctor can modify their patient health history • Doctor can add comments • Patient will be got notification about the mediation		
Postconditions: • Patient and Doctors can view the health history. In addition, the doctor can add a comment to let the patient know about their condition.		

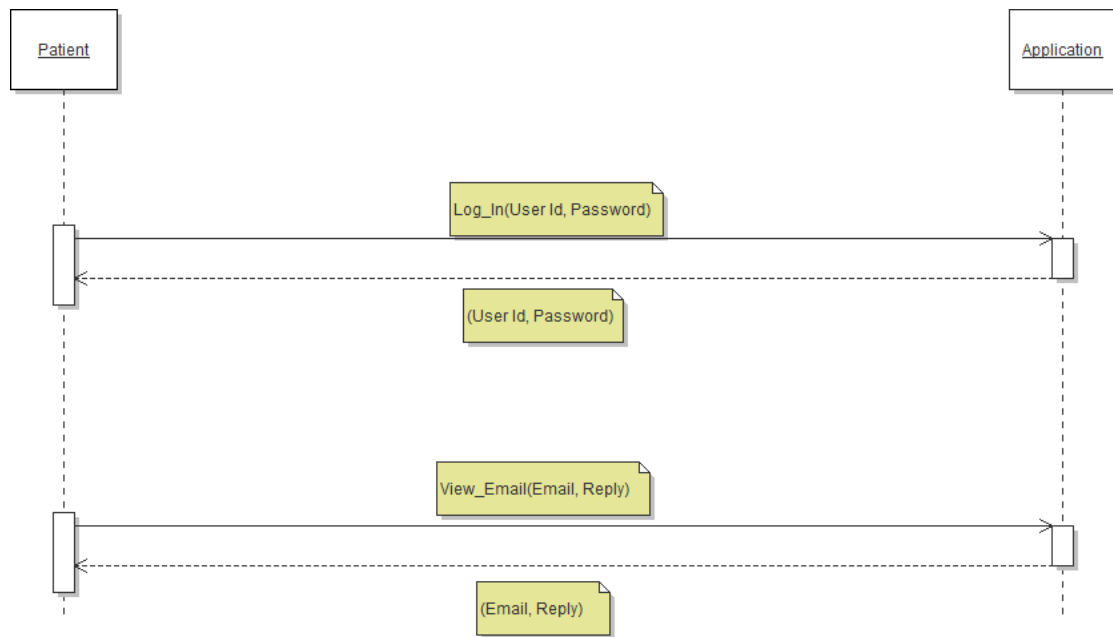
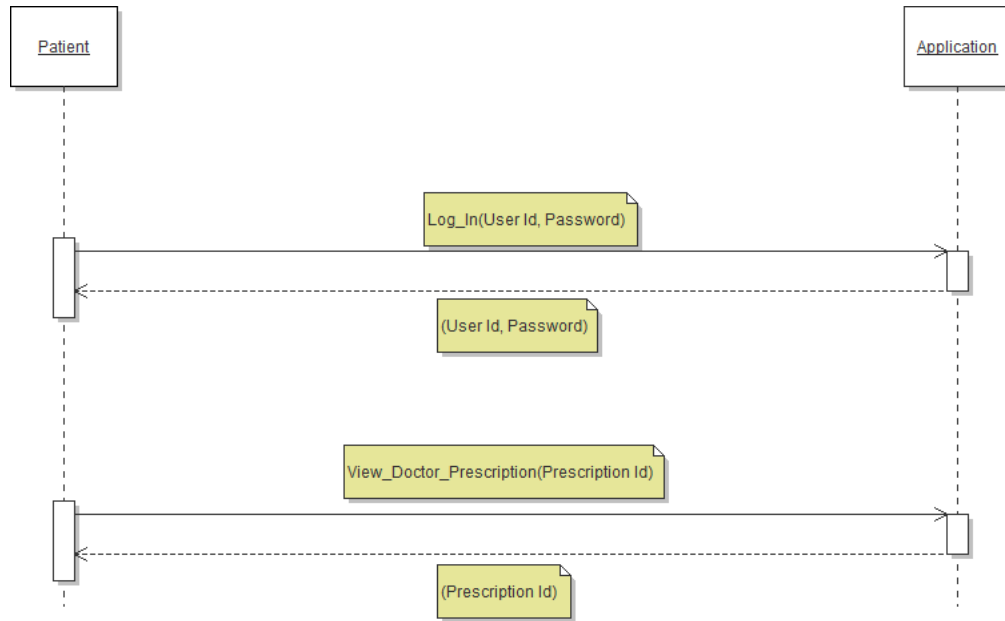
Use Case Name: Doctor and patient chat	ID: 010	Priority: High
Actor: Patients		
Description: ● Patients Can text, call, or video chat with the doctor anytime if they have any question, advise, or medical consultation		
Trigger: Type: ☒ External ☐ Temporal		
Preconditions: Patients can see the available doctor to chat.		
Normal Course: Information for Steps: ● Patient will click on the application. ● Patient will log in to the application. ● Patient will select Doctor Friends. ● Patient can see the available doctor. ● Patient can choose to text, call, or video chat with the doctor.		
Postconditions: ● Patients can see the available doctor to text, call, or video chat with the doctor anytime.		

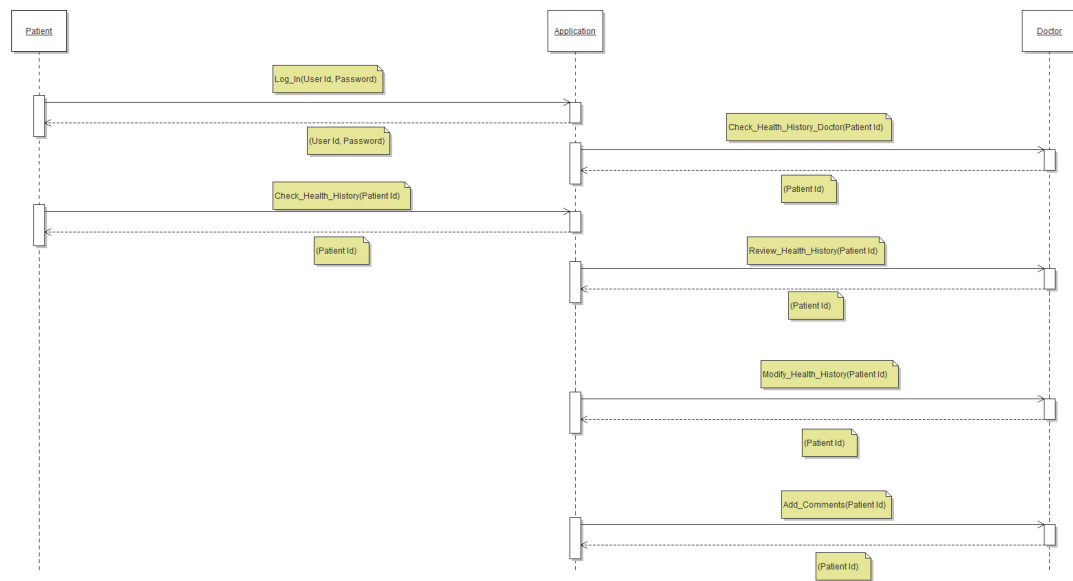
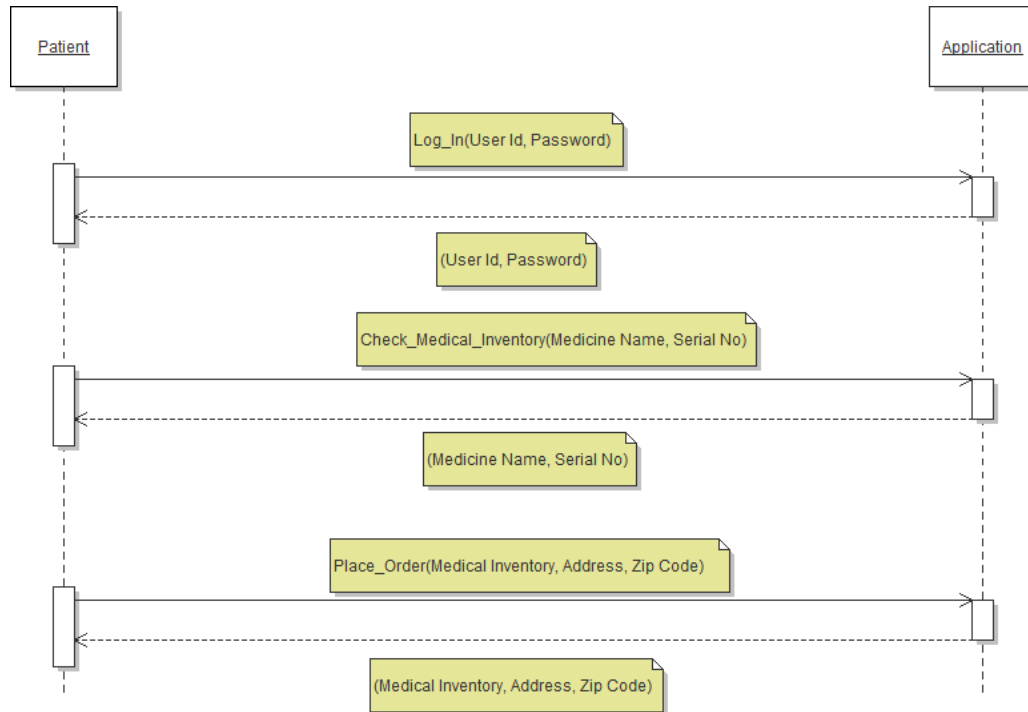
Sequence Diagrams

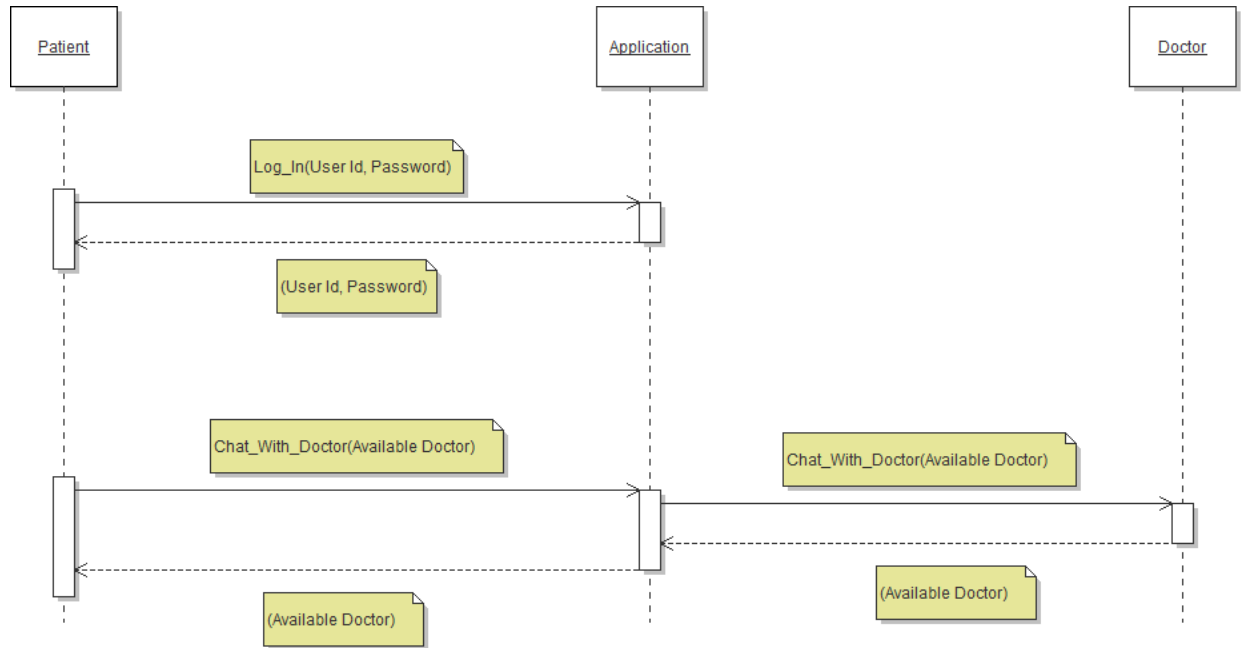












Testing Plan: Clinical Management System

1. Analyzing Product

- a. Who will use the app?
 - i. Patients
 - ii. Doctors
- b. What is it used for?
 - i. Booking appointments
 - ii. Emergency room booking
 - iii. Medical inventory
 - iv. Health history
- c. What is software/hardware the product uses?
 - i. Clinical management app
 - ii. Any mobile device

2. Developing Test Strategy

- a. Scope of testing
 - i. Components to be tested – in scope
 - ii. Components not to be tested – out of scope
 - iii. Precise customer requirements
 - iv. Project budget

- v. Specification

- b. Testing type

- i. Unit testing

3. Test Objectives

- a. Application should be bug free

4. Test Criteria

- a. Suspension Criteria

- i. Test cycle will be suspended until the criteria is resolved.

- b. Exit Criteria

- i. On the successful completion of a test phase.

- ii. 95% of all test pass

5. Resource Planning

- a. Tester

- i. One who execute the tests, log results, report the defects

- b. Test Tool

- i. Tool for testing, generate the results.

6. Planning Test Environment

- a. What is the Test Environment?

- i. Setup of software and hardware on which the testing team is going to execute test cases.

7. Schedule & Estimation

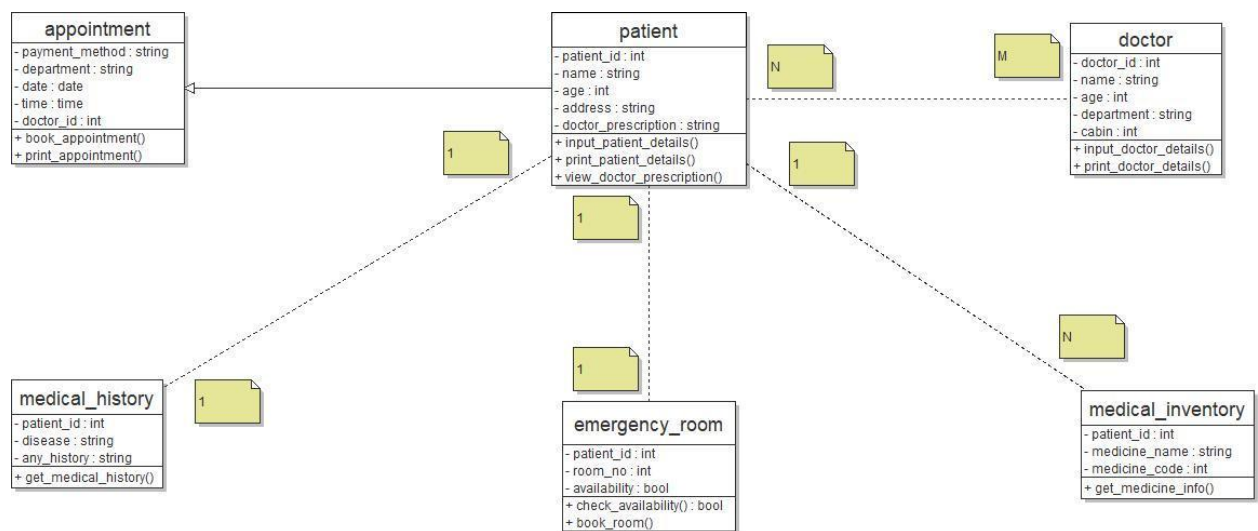
- a. Create the test specification
 - i. Test designer
- b. Perform test execution
 - i. Tester
- c. Test report
 - i. Tester

8. Test Deliverables

- a. Before testing phase
 - i. Test plan
 - ii. Test cases
 - iii. Test design
- b. During testing
 - i. Test scripts
 - ii. Simulators
 - iii. Test data
- c. After the testing
 - i. Test results

ii. Reports

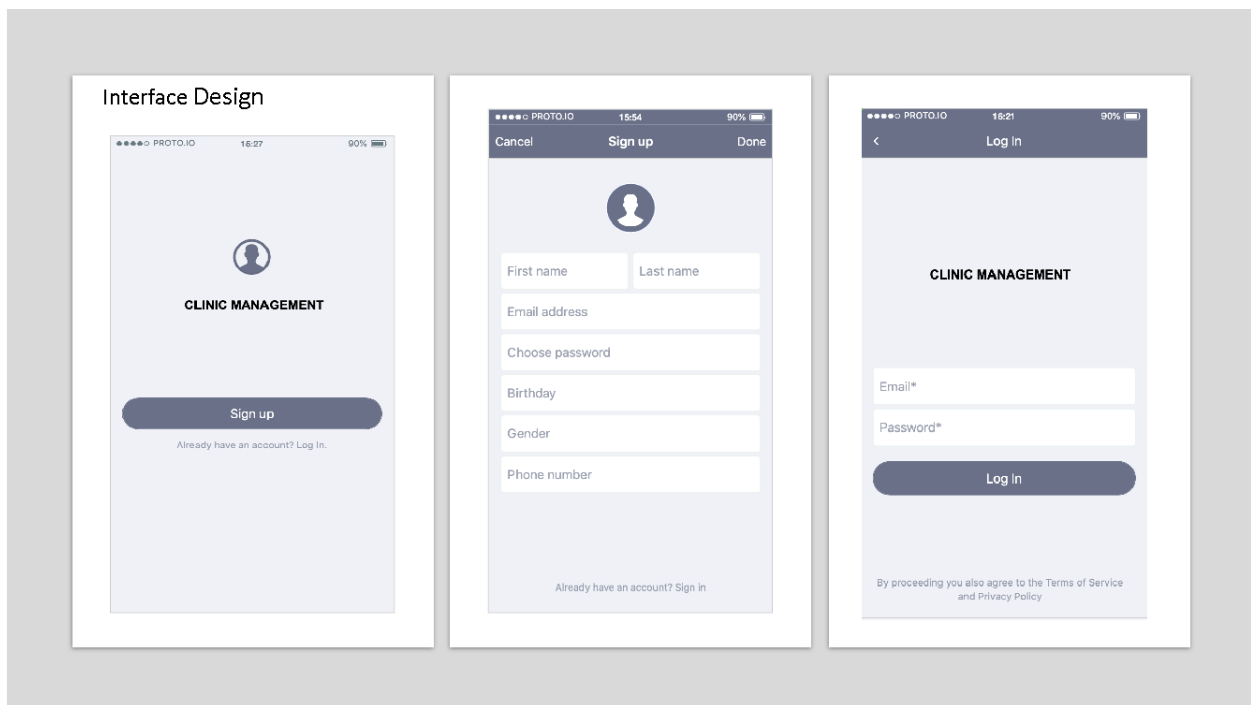
Class Diagram



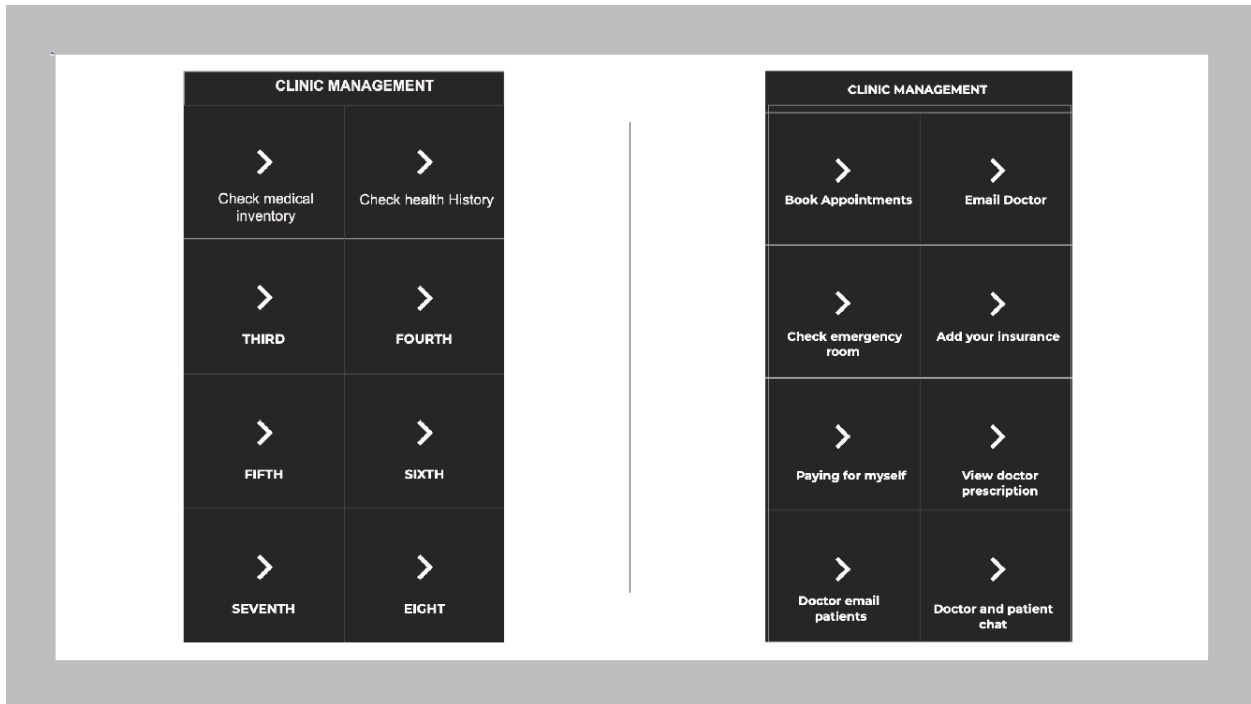
Interface Design

The application's interfaces are supposed to be interactive and intuitive to attract maximum patients.

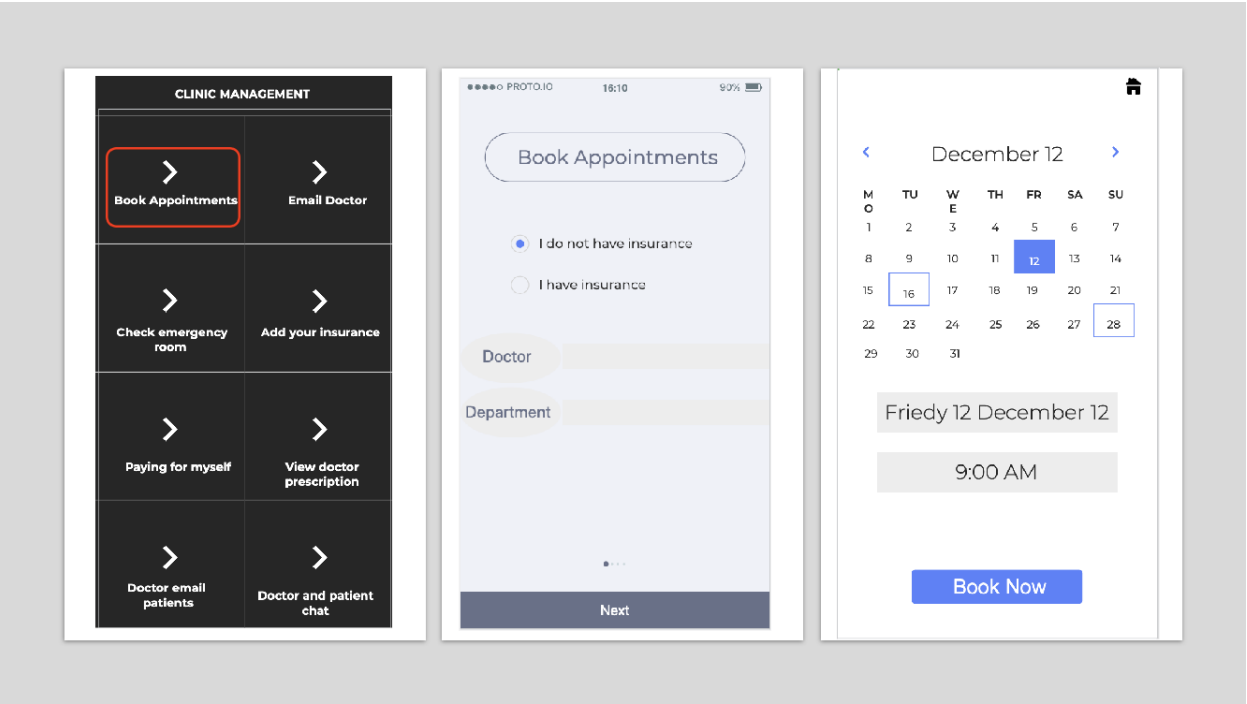
Home, Signup and Login page



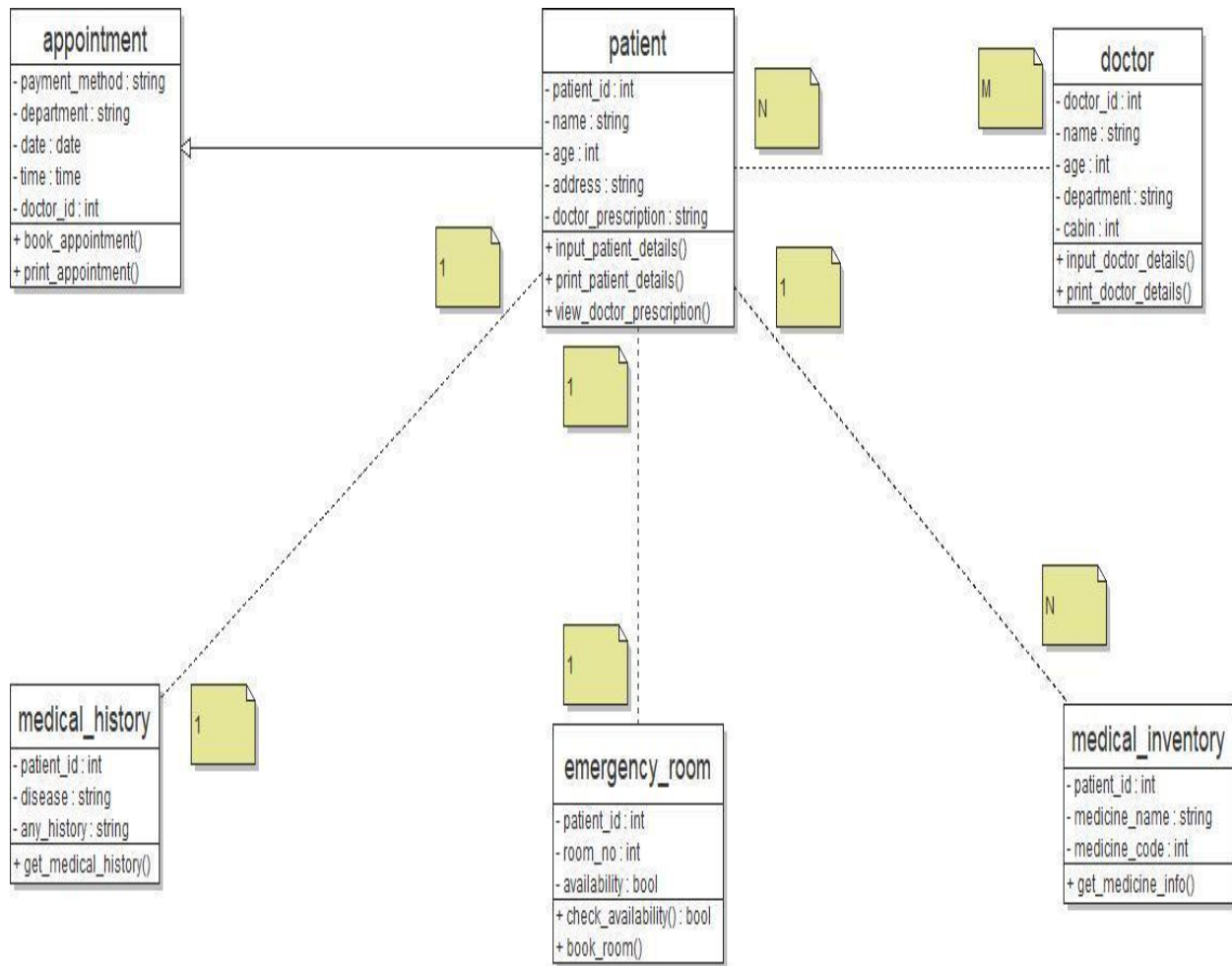
Menu



Example page for booking an appointment



Controls Document for Clinical Management System



- Patient and doctors will have 'patient id' and 'doctor id' respectively.
- Patient can view prescriptions in the prescription section.
- Patients can book emergency rooms in the room book section.
- Patients can view medical history or go and check medicines in the medical inventory section.
- Patients can also buy medicines from the buy medicines section.
- Doctors can also check and update patients' medical prescriptions.