

American International University-Bangladesh (AIUB)  
**Department of Computer Science and Engineering  
Faculty of Science &Technology (FST)  
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CSC 00191- Object Oriented Analysis And Design (OOAD)**

**Section: H**

**Project Title: Hospital Management System**

**Submitted by:**

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**1.Project Title: Hospital Management System**

**2.Project overview:**

ANMCH is a hospital where patients are come for booking appointment with doctor. One patient will be able to appoint one or more doctor. At 1st, patient will register themself. Receptionists have to log in and book an appointment for a patient. One doctor handles the Prescription, Tests, Admit/discharge, Operations of one or many patients. All these doctoral handles will be recorded under treatment history. Nurses will update the treatment history of all patients. Patients can call for ambulance via receptionist. Technologists can do many tests of many patients at a day and after the confirmation of technologist, receptionist provide the test reports to the patient. When a doctor refers a patient to be admitted, then receptionist check for cabin availability and allot for the patient. After discharge of a patient, receptionist make the cabin unallocated from the patient. An automated bill calculator system will generate the bill based on a patient’s treatment history and verify patient’s payments. Patient can pay bill via cash or card.

**Feature and components:**

**Features:**

1. Book appointment: All valid patient will use this feature.
2. Call ambulance: All valid patient will use this feature .
3. Treatment history: Doctor, Patient, Nurses will use this feature .
4. Admit/Discharge: Doctor will use this feature and this feature will extend to treatment history.
5. Allocate/ Unallocated cabin: Receptionist will use this feature.
6. Bill Calculation: Billing system will use this
7. Pay Bill: Patient will use this.

**Components:**

1. Test: It will extend treatment history.
2. Prescription: It will extend treatment history.
3. Confirm: This will extend test report.
4. Verify: This will included to pay bill.
5. Cash/Card: this two will extend pay bill.

**Users:**

**Patient:** Will do registration

Will book appointment

Take report

Will call ambulance

Take Treatment

Make payment

**Doctor:** Will make treatment history

Admit or discharge patient

**Nurse:** Will update treatment history

**Receptionist:** Will log in

Will Confirm appointment

Will Delivered Test

Will confirm ambulance

Will allocate or unallocated cabin

**Technologist:** Will verify the test reports

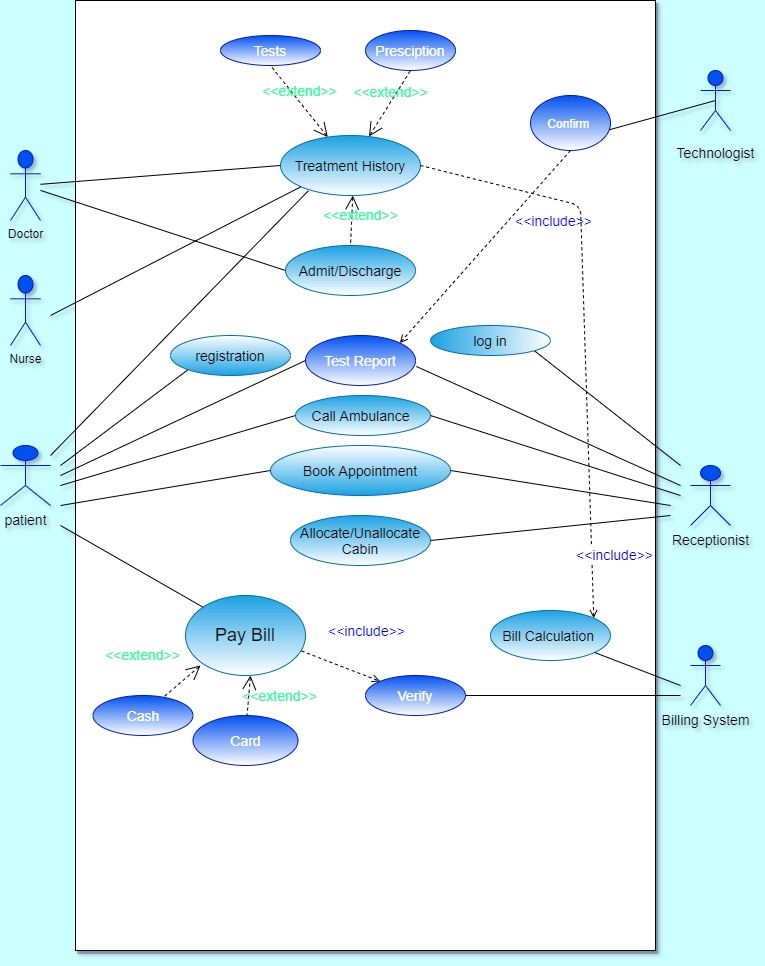
**Billing System**: Will calculate the bill

Verify the payment of patient.

**Justification:**

* By the system, when the wants to have an appointment, they can simply dial the receptionist who will check the doctors schedule for the patient and set the appointment. So the patient can find the data about visiting hours and book a convenient time within a minute. Moreover, when it is an emergency case ,they can call ambulance.
* In addition, all the data of whole hospital management such as allocated cabin , pay bills, tests , treatment histories etc many more thing will be recorded in database of the system. So the system speeds up the process of patient registration and filling out all the necessary records.
* The doctors have the ability to check the disease history, test results, as well as add new data to the patient file. The job of the doctor that previously involved too much paperwork can be completely computerized. Doctors spend more time on patients’ treatment rather than documentation
* As the services and interactions are improved in all possible ways, everything is being planned with greater precision. It saves the time of all the system users and provides them with up-to-date information.
* Finally, the hospital authorities can control of all the interactions in their facility. The hospital system can generate the analysis of staff work, financial expenses, revenue, set the general priorities of the institution, outline future directions.

**Use Case Diagram of the Proposed Project**

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