

# **American International University – Bangladesh**

## **Department of Computer Science**

**Faculty of Science and Technology**

### **Course name: Software Engineering [C]**

#### **Group 1**

#### **Problem Statement, CRC Cards, Class Compartment and Class Diagram**

#### **Group Members:**

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#### **Submitted to:**

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## **Problem statement:**

Our system maintains hospital occupancy. In our system, a user can do registration using his/her phone number, username, password. System administrator will verify his/her data and register him/her as a user.

User can book ICU. When user request to book ICU, system administrator forwards the request to the hospital (management). When hospital management confirms the request, system administrator notify the user to take the service.

User can book an ambulance. When he/she request to book an ambulance, system administrator forwards the request to few ambulance drivers(management). When a driver confirms the request, system administrator notify user to take the service.

User can request for oxygen. System administrator forwards the request to the supplier company. When supplier company confirms the request, system administrator notify user that oxygen will be delivered.

After taking service, accountant calculates the bill and system administrator shows the amount to the user. When user pays the bill, accountant will receive the bill and distributes according to percentage.

## CRC Cards

<b><u>Class Name:</u></b> User	
<b><u>Responsibility:</u></b>	<b><u>Collaborators:</u></b>
1. Do registration	patient
2. Request to book ICU	
3. Request to book Ambulance	
4. Request for Oxygen	
5. Makes Payment	

<b><u>Class Name:</u></b> System_Administrator	
<b><u>Responsibility:</u></b>	<b><u>Collaborators:</u></b>
1. Verify Data.	admin
2. Forward request to concern	
3. Notify request confirmation	
4. Show the bill to user	

<b><u>Class Name:</u></b> Accountant	
<b><u>Responsibility:</u></b>	<b><u>Collaborators:</u></b>
1. Receives payment	auditor
2. Distributes payment	
3. Calculate the bill	

## Class Compartment:

\<<User>> Patient
-name: String=blank -mobileNO: String=blank -password: String=blank -location: String=null
+setName(name:String) +getName(): String +setMobileNo(mobile: Strong) +get MobileNo(): String +verification(mobileNO:String, password:String) +setLocation(location: String) +getLocation() : String +requestForICU( name:String, mobileNO: String) +requestForAmbulance( name:String, location:String) +requestForOxygen ( name:String, location:String) +requestForPayment( name:String, mobileNO: String)

<<User>> Accountant
-username: String=blank -password: String=blank -amount: double=null
+setUsername(username: String) +getUsername():String +setPassword(password: String) +getPassword(): String +setAmount(amount : double) +getAmount():double +login(username: String, password: String) +calculateBill(): double +recievePayment(amount : double) +distributesPayment(amount : double)

<<user>> System Administrator
-username: String=blank -password: String=blank
+verifyData(username: String, password: String) +forwardRequestToConcern(): String +notifyRequestConfirmation(): String +showsTheBill(): String

## Class Diagram:

