

American International University – Bangladesh

Department of Computer Science

Faculty of Science and Technology

Course name: Software Engineering [C]

Group 1

Use Case and Use Case Description

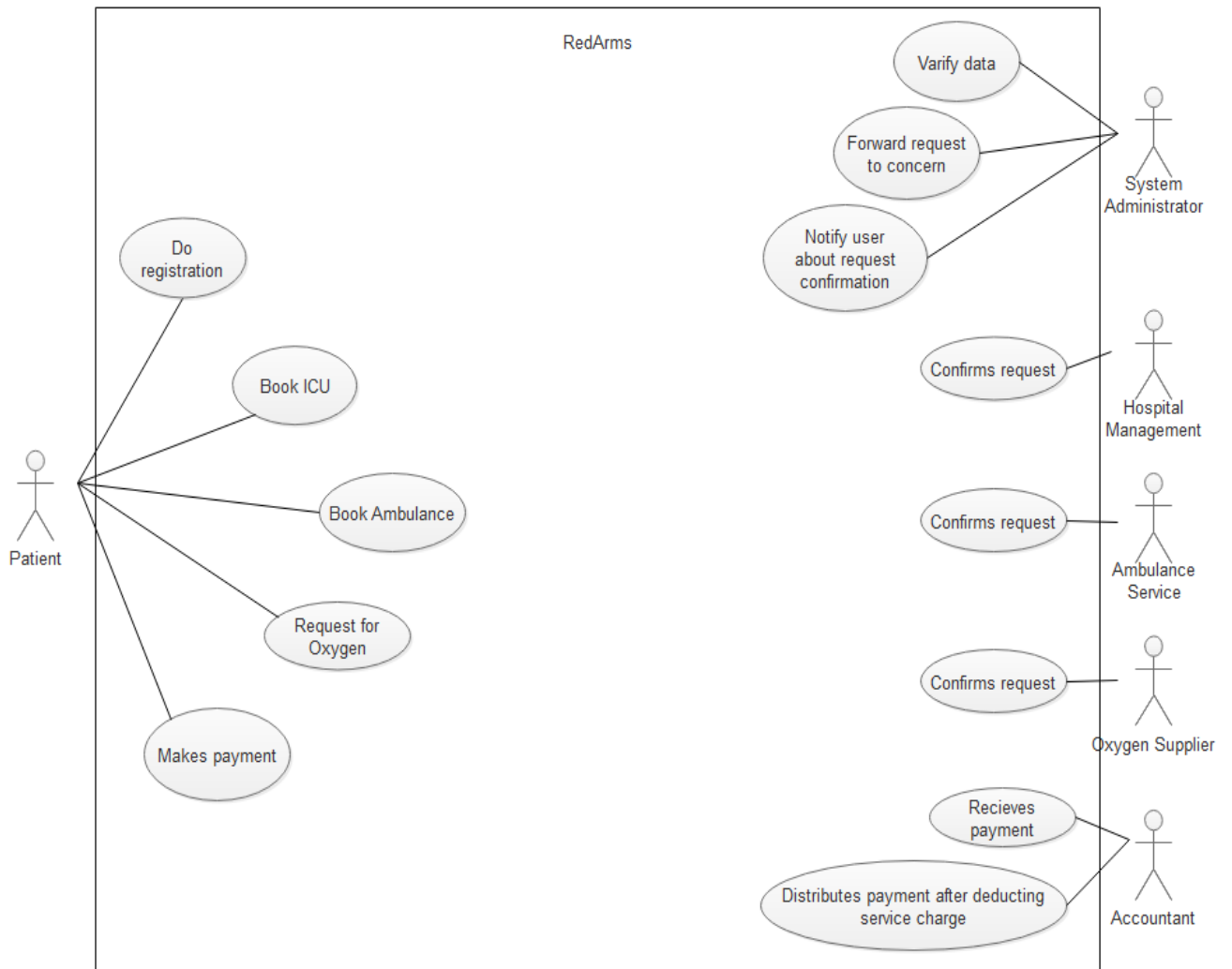
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Use Case Diagram:



Use Case: Booking ICU, Ambulance, and Oxygen Supplication.

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Purpose: To give service to the patient who need emergency ICU, ambulance, or oxygen supplication.

Overview:

RedArms is an ICU and Ambulance management system, designed to help the patient to reach ICU and/or ambulance when required. This system works for the procedural approach of how to bridge the gap between patient, hospital management, and ambulance driver. In this system, at first a user has to register with his unique NID number, phone number, and preferable password. The system administrator then verify the data and creates profile for that user. Once a user do registration, s/he become a registered user. After successful registration, user can book ICU where s/he will find recommendation according to availability and price. 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. However, user also can book an ambulance where s/he will get recommendation according to current distance and price. When s/he request to book an ambulance, system administrator forwards the request to few ambulance drivers near to the requested person. When a driver confirms the request, system administrator notify the confirmation to take the service. Moreover, a user can request for oxygen where s/he must set a delivery address. System administrator forwards the request to the supplier. When supplier confirms the request, system administrator notify user that oxygen will be delivered within few hours. After taking the service, registered user can pay through bkaash or nagad or card. The accountant will receive the payment and will forward the amount to the hospital management or ambulance driver after deducting our service charge.

Cross References:

Actors: Patient

Pre-Condition:

- The user must be connected with internet.
- The user must have to use a valid phone number to use the system.
- The system must have defined partnership with few hospitals management, ambulance drivers, and oxygen suppliers.
- The system must smooth mobile banking and/or online transaction process.
- The user must have sufficient amount of money to pay.

Post Condition:

- The user must pay before leaving the service place.
- The accountant must deduct the service charge before forwarding payment to hospital management, drivers, and suppliers.

Typical Course of Events:

Actor Actions	System Actions
1. Begins when a patient register.	2. System verifies NID and phone number.
3. Patient request for ICU booking	4. System forwards request to hospital management.
	5. Hospital management confirms request.
	6. System notify patient to get service.
7. Patient gets the service.	
	8. System asks for payment.
9. Patient pays though bkash, nagad, or card	10. Accountant receives payment.
	11. Accountant distributes payment after deducting service charge.

Alternative Flow of Events:

- Step 2: Patient data verification failed. Display an error message, cancel registration attempt.
- Step 5: Hospital management cancel request not for having available seats. Display an error message, cancels the request.

Exceptional Flow of Events:

- System fails to forward request due to technical error before step 4, cancels the request.