



## **RIPHAH INTERNATIONAL UNIVERSITY**

# **Project Artificat#2**

NAME: AHMED AZIZ

SAP ID: 55223

Course: Software Construction and development



#### Use Case 4.1 — View Daily Assigned Patients & Schedule:

| Use case section  | Details   |   |
|-------------------|---|---|
| Use Case No       | 4.1   |   |
| Use case name     | View Daily Assigned Patients & Schedule   |   |
| Actor             | Nurse   |   |
| Type              | Primary   |   |
| Description       | Nurse views the list of patients assigned for the day along with their schedule.      |   |
| Preconditions     | Nurse must be logged in.  |   |
| Postconditions    | Assigned patients and schedule are displayed.   |   |
| Main Success Flow | Actor Action:   | System Response   |
|                   | 1. Nurse selects “Assigned Patients & Schedule”.                                      | 2. System retrieves assigned patients.<br>3. System displays the list and schedule. |
| Alternative Flow  | A1.1 If no patients assigned, system shows “ <b>No patients assigned for today.</b> ” |   |

#### Use Case 4.2 — View Duty Location

| Use case section  | Details  |   |
|-------------------|--|---|
| Use Case No       | 4.2  |   |
| Use case name     | View Duty Location   |   |
| Actor             | Nurse  |   |
| Type              | Primary  |   |
| Description       | Nurse views their assigned duty location (ward/room/department).                 |   |
| Preconditions     | Nurse must be logged in.   |   |
| Postconditions    | Duty location is displayed.  |   |
| Main Success Flow | Actor Action   | System Response   |
|                   | 1. Nurse selects “Duty Location”.  | 2. System fetches assigned location.<br>3. System displays the duty location. |
| Alternative Flow  | A1.1 If no location assigned, system shows “ <b>No duty location assigned.</b> ” |   |

### Use Case 4.3 — View Shift Timing:

| Use case section  | Details   |   |
|-------------------|---|---|
| Use Case No       | 4.3   |   |
| Use case name     | View Shift Timing   |   |
| Actor             | Nurse   |   |
| Type              | Primary   |   |
| Description       | Nurse views start and end time of their shift.                            |   |
| Preconditions     | Nurse must be logged in.  |   |
| Postconditions    | Shift timing is displayed.  |   |
| Main Success Flow | Actor Action  | System Response   |
|                   | 1. Nurse selects “Shift Timing”.  | 2. System retrieves shift duration.<br>3. System displays shift start–end time. |
| Alternative Flow  | A1.1 If shift info missing, system shows “Shift information unavailable.” |   |

### Use Case 4.4— Record & Update Patient Vitals:

| Use case section  | Details   |  |
|-------------------|---|--|
| Use Case No       | 4.4   |  |
| Use case name     | Record & Update Patient Vitals                                    |  |
| Actor             | Nurse   |  |
| Type              | Primary   |  |
| Description       | Nurse records and updates patient vitals: BP, temperature, pulse. |  |
| Preconditions     | Nurse must have access to patient records.                        |  |
| Postconditions    | Updated vitals saved successfully.                                |  |
| Main Success Flow | Actor Action  | System Response  |
|                   | 1. Nurse selects a patient.<br><br>3. Nurse enters vitals.        | 2. System opens patient record.<br><br>4. System validates the vitals. |
| Alternative Flow  | A1.1 If vitals invalid, system shows “Enter valid vitals.”        |  |

#### Use Case 4.5 — Mark Triage Level:

| Use case section  | Details   |   |
|-------------------|---|---|
| Use Case No       | 4.5   |   |
| Use case name     | Mark Triage Level   |   |
| Actor             | Nurse   |   |
| Type              | Primary   |   |
| Description       | Nurse selects a triage level for an emergency patient.                                    |   |
| Preconditions     | Patient must be listed as emergency.  |   |
| Postconditions    | Triage level updated.   |   |
| Main Success Flow | Actor Action  | System Response   |
|                   | 1. Nurse opens emergency patient record.<br><br>3. Nurse selects Critical/Serious/Stable. | 2. System shows triage options.<br><br>4. System updates triage status. |
| Alternative Flow  | A1.1 If no option selected, system shows <b>“Please select a triage level.”</b>           |   |

#### Use Case 4.6 — Update Patient Progress Notes

| Use case section  | Details   |  |
|-------------------|---|--|
| Use Case No       | 4.6   |  |
| Use case name     | Update Patient Progress Notes                                     |  |
| Actor             | Nurse   |  |
| Type              | Primary   |  |
| Description       | Nurse updates the patient’s daily progress notes.                 |  |
| Preconditions     | Nurse must access patient record.                                 |  |
| Postconditions    | Notes updated successfully.                                       |  |
| Main Success Flow | Actor Action  | System Response  |
|                   | 1. Nurse selects a patient.<br><br>3. Nurse writes/updates notes. | 2. System loads notes section.<br><br>4. System saves the notes. |
| Alternative Flow  | A1.1 If notes empty, system shows <b>“Notes cannot be blank.”</b> |  |

### Use Case 4.7— Send Emergency Doctor Alert

| Use case section  | Details   |   |
|-------------------|---|---|
| Use Case No       | 4.7   |   |
| Use case name     | Send Emergency Doctor Alert   |   |
| Actor             | Nurse   |   |
| Type              | Primary   |   |
| Description       | Nurse sends an alert to the doctor during emergency conditions.       |   |
| Preconditions     | Nurse must be logged in and assigned to patient.                      |   |
| Postconditions    | Doctor receives alert.  |   |
| Main Success Flow | Actor Action  | System Response   |
|                   | 1. Nurse selects “Emergency Alert”.<br><br>3. Nurse confirms sending. | 2. System prepares the alert.<br><br>4. System sends alert.<br>5. System shows “Alert sent successfully.” |
| Alternative Flow  | A1.1 If alert fails, system shows “Alert sending failed, try again.”  |   |

## LAB TECHNICIAN

### Use Case 5.1 Receive Lab Test Requests

| Use Case Section  | Details   |   |
|-------------------|---|---|
| Use Case No       | 5.1   |   |
| Use case name     | Receive Lab Test Requests   |   |
| Actor             | Lab Technician  |   |
| Type              | Primary   |   |
| Description       | Lab Technician views the start and end time of their assigned shift.                  |   |
| Preconditions     | Technician must be logged in.   |   |
| Postconditions    | Lab test request is displayed and marked as received.                                 |   |
| Main Success flow | Actor Action  | System Response   |
|                   | 1 Lab Technician selects "Lab Test Requests".   | 2. System fetches all new test requests.<br>3. System displays the list of pending test requests. |
| Alternative flow  | <b>A1.1</b> If no new requests exist, system shows <b>"No new lab test requests."</b> |   |

Use Case 5.2 — Update Lab Test Status

| Use Case Section  | Details  |  |
|-------------------|--|--|
| Use Case No       | 5.2  |  |
| Use case name     | Update Lab Test Status   |  |
| Actor             | Lab Technician   |  |
| Type              | Primary  |  |
| Description       | Lab Technician updates the status of lab tests (Pending, In Progress, Completed).                    |  |
| Preconditions     | Test must exist in the system  |  |
| Postconditions    | Updated status is saved.   |  |
| Main Success flow | Actor Action   | System Response  |
|                   | 1 Technician selects a lab test.<br><br>3 Technician selects status (Pending/In Progress/Completed). | 2 System loads test details.<br><br>4 System updates and saves status. |
| Alternative flow  | <b>A1.1</b> If no status selected, system shows “ <b>Please select a status.</b> ”                   |  |

Use Case 5.3 — Upload Lab Test Results

| Use Case Section  | Details   |   |
|-------------------|---|---|
| Use Case No       | 5.3   |   |
| Use case name     | Upload Lab Test Results   |   |
| Actor             | Lab Technician  |   |
| Type              | Primary   |   |
| Description       | Lab Technician uploads the completed test results into the system.                |   |
| Preconditions     | Test must be marked as completed.   |   |
| Postconditions    | Result document/file is uploaded and linked to the patient record.                |   |
| Main Success flow | Actor Action  | System Response   |
|                   | 1 Technician opens a completed test.<br><br>3 Technician uploads result file.     | 2 System displays upload option.<br><br>4. System validates and saves the file.<br>5. System shows “Results uploaded successfully.” |
| Alternative flow  | <b>A1.1</b> If file format invalid → <b>“Upload failed: invalid file format.”</b> |   |



#### Use Case 5.4 — Print & Deliver Lab Test Reports:

| Use Case Section  | Details   |  |
|-------------------|---|--|
| Use Case No       | 5.4   |  |
| Use case name     | Print & Deliver Lab Test Reports  |  |
| Actor             | Lab Technician  |  |
| Type              | Primary   |  |
| Description       | Technician prints completed reports and hands them to patients or the concerned doctor.     |  |
| Preconditions     | Report must be available in the system.   |  |
| Postconditions    | Report printed and delivery recorded.   |  |
| Main Success flow | Actor Action  | System Response  |
|                   | 1 Technician selects a completed report.<br><br>3 Technician selects "Print".               | 2 System loads the report.<br><br>4 System sends report to printer.<br>5 System shows "Report printed successfully." |
| Alternative flow  | <b>A1.1</b> If printer error occurs → System shows "Printing failed, please check printer." |  |

### Use Case 5.5 — Notify Patients or Doctors of Report Readiness:

| Use Case Section  | Details   |  |
|-------------------|---|--|
| Use Case No       | 5.5   |  |
| Use case name     | Notify Patients or Doctors of Report Readiness  |  |
| Actor             | Lab Technician  |  |
| Type              | Primary   |  |
| Description       | Technician sends notification to patient or doctor when a lab report is ready.              |  |
| Preconditions     | Test result must be uploaded.   |  |
| Postconditions    | Notification delivered.   |  |
| Main Success flow | Actor Action  | System Response  |
|                   | 1 Technician selects “Notify Recipient”.<br><br>3 Technician confirms sending notification. | 2 System loads patient/doctor contact info<br><br>4 System sends notification.<br>5 System shows “Notification sent successfully.” |
| Alternative flow  | <b>A1.1</b> If sending fails → <b>“Notification failed, try again.”</b>                     |  |

### Use Case 5.6 — Manage Laboratory Inventory:

| Use Case Section  | Details  |  |
|-------------------|--|--|
| Use Case No       | 5.6  |  |
| Use case name     | Manage Laboratory Inventory  |  |
| Actor             | Lab Technician   |  |
| Type              | Primary  |  |
| Description       | Technician manages items such as test kits, equipment availability, and stock counts.        |  |
| Preconditions     | Technician must have inventory access.   |  |
| Postconditions    | Updated inventory saved.   |  |
| Main Success flow | Actor Action   | System Response  |
|                   | 1 Technician selects “Inventory Management”.<br><br>3 Technician adds/updates stock details. | 2 System displays current inventory list.<br><br>4 System saves changes. |
| Alternative flow  | <b>A1.1</b> If invalid quantity entered → <b>“Enter valid inventory amount.”</b>             |  |

Use Case 5.7 — View Shift Timing

| Use Case Section  | Details   |   |
|-------------------|---|---|
| Use Case No       | 5.7   |   |
| Use case name     | View Shift Timing   |   |
| Actor             | Lab Technician  |   |
| Type              | Primary   |   |
| Description       | Lab Technician views the start and end time of their assigned shift.          |   |
| Preconditions     | Technician must be logged in.   |   |
| Postconditions    | Shift schedule displayed.   |   |
| Main Success flow | Actor Action  | System Response   |
|                   | 1 Technician selects “Shift Timing”.  | 2 System retrieves assigned shift.<br>3 System displays start–end time. |
| Alternative flow  | <b>A1.1</b> If shift info missing → “ <b>Shift information unavailable.</b> ” |   |