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Hotel Management System

Institute of Business Administration, Karachi

Workflow Documentation — Module 3: Complaint & Feedback System			
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Program	BSCS	Course	Web-Based Application Development
Version	1.0 — Final	Date	February 2026
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## 1. Module Overview

Module 3 integrates two sub-systems: the **Complaint System** (Part A) and the **Feedback System** (Part B). Both are accessible from a shared landing page within the student hostel dashboard. Admin actions such as updating complaint status are performed on the admin side and reflected dynamically for the student.

### Student

Submits complaints, tracks status, rates resolutions, submits feedback.

### Hostel Admin

Reviews complaints, updates status (In Progress/Resolved), adds remarks.

### HMS System

Generates complaint IDs, timestamps, stores records, updates status in real-time.

## PART A: Complaint System Workflow

### 2.1 Objective

Provide hostel residents with a digital platform to raise, track, and view complaints related to hostel issues and receive transparent resolution updates from administration.

**Preconditions:** Authenticated & logged into HMS > Active hostel residency > Navigated to Complaint & Feedback > Clicked Complaints option

### 2.2 Complaint Lifecycle Flow



### 2.3 Stage-by-Stage Workflow

Stage	Name	Description
0	Auth & Entry	Student logs in via ERP ID & password. Navigates to Complaint & Feedback via dashboard card or sidebar, then clicks <i>Complaints</i> .
1	Complaint Home	Hub for all actions. System fetches all complaints for logged-in student. Two options: <b>Raise New Complaint</b> and <b>My Complaints</b> . Empty state shown if none exist.
2	Raise Complaint	Fields: <b>Category</b> (Plumbing/Electrical/Cleanliness/Mess/Security/Other), <b>Description</b> (required), <b>Attachment</b> (optional JPEG/PNG max 2 MB). <code>student_id</code> , <code>room_number</code> , <code>created_at</code> , <code>status</code> auto-filled.
3	Validation	Category required. Description min 1 char. If image: JPEG/PNG only; max 2 MB. Inline errors shown on failure.
4	Record Created	System generates <code>complaint_id</code> , inserts record ( <code>status</code> = Pending), redirects to My Complaints, shows success toast with Complaint ID.
5	My Complaints	Scrollable table (newest-first): Complaint ID, Category, Date, Status, Action [View].
6	Detail View	Read-only: Complaint ID, Category, Description, Attachment, Status, Admin Remark, Dates. Student cannot edit or change status.

## 2.4 Complaint Status Reference

<b>PENDING</b> Not yet reviewed	<b>IN PROGRESS</b> Admin working on it	<b>RESOLVED</b> Fixed	<b>REJECTED</b> Invalid or not actionable
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## 2.5 Admin Impact on Complaint Lifecycle

Admin Action	System Trigger	Student Impact
Mark <i>In Progress</i>	<code>status</code> updated in DB; <code>updated_at</code> refreshed	Student sees In Progress in list and detail view
Mark <i>Resolved</i> + Remark	<code>status</code> = Resolved; <code>admin_remark</code> saved; <code>updated_at</code> refreshed	Student sees Resolved and remark; rating prompt appears
Mark <i>Rejected</i>	<code>status</code> = Rejected; <code>rejection_reason</code> saved	Student sees Rejected with reason (if provided)

## PART B: Feedback System Workflow

### 3.1 Overview & Objective

The Feedback System is a separate sub-module allowing students to submit structured ratings and comments on hostel-related services. In MVP scope, past feedback is not displayed to the student — it operates as a one-way submission channel.

**MVP Note:** Past feedback submissions are not visible to the student in the current version. This is a planned enhancement for future iterations.

### 3.2 Feedback Flow



### 3.3 Feedback Form Fields

Field	Input Type	Required	Details
Feedback Type	Dropdown	Yes	Hostel   Mess   Maintenance
Rating	Star (1–5)	Yes	Mandatory; blocks submission if empty
Comment	Text area	No	Optional; no character limit
student_id	Auto-filled	Auto	Derived from active session
created_at	Auto-filled	Auto	Submission timestamp set by system

### 3.4 Stage-by-Stage Workflow

#	Stage	Description
1	Form Load	Student clicks <i>Submit Feedback</i> from landing page. System loads the Feedback Form. student_id automatically captured from active session.
2	Select Type	Choose: <b>Hostel</b> (overall facilities), <b>Mess</b> (food quality, service), or <b>Maintenance</b> (repair response & quality).
3	Select Rating	Select 1–5 stars (mandatory). Submitting without a rating triggers: <i>“Please select a rating before submitting.”</i>
4	Add Comment	Optionally add text in comment area. No character min or max. Field can be left empty.
5	Submit	Validates rating. On success: inserts record (feedback_type, rating, comment, student_id, created_at). Redirects to landing page.
6	Confirmation	Success: <i>“Your feedback has been submitted successfully. Thank you!”</i> Feedback stored but NOT shown to student in MVP.

### 3.5 Feedback Type Categories

Hostel	Mess	Maintenance
Facility cleanliness, security & safety, admin responsiveness, common area upkeep, internet & utilities.	Food quality & taste, menu variety, meal timings, hygiene & cleanliness, staff behavior.	Response time, quality of repair work, communication, maintenance frequency, staff availability.

## 4. Data Schema Reference

### 4.1 complaints Table

Column	Type	Description
complaint_id	INT/UUID	PK; auto-generated
student_id	INT/FK	FK from students
room_number	VARCHAR	From profile
category	VARCHAR	Complaint type
description	TEXT	Required
image_path	VARCHAR	NULL if no image
status	ENUM	Pending Progress Resolved Rejected
admin_remark	TEXT	NULL until admin adds
created_at	DATETIME	Submission time
updated_at	DATETIME	Last admin update

### 4.2 feedback Table

Column	Type	Description
feedback_id	INT/UUID	PK; auto-generated
student_id	INT/FK	FK from students
feedback_type	ENUM	Hostel Mess Maintenance
rating	TINYINT	1–5 (required)
comment	TEXT	Optional; NULL if empty
created_at	DATETIME	Submission timestamp

## 5. Validation & Business Rules

#	Rule	Applies To	Detail
1	Category mandatory	Complaint	Form will not submit if category empty
2	Description mandatory	Complaint	Minimum 1 character required
3	Image optional but validated	Complaint	If uploaded: JPEG/PNG only; max 2 MB
4	No editing after submission	Complaint	Content cannot be edited once submitted
5	Status is admin-only	Complaint	Status read-only for student
6	Rating mandatory	Feedback	Blocked until rating (1–5) is selected
7	Comment optional	Feedback	No character minimum or maximum
8	Feedback not shown to student	Feedback	History not displayed in MVP version
9	Session-linked records	Both	All records linked to authenticated student_id
10	Rating is final	Complaint Rating	Cannot be changed after submission

## 6. GitHub & Conclusion

**Repository:** <https://github.com/Sagarlekhraj-19/HMS.iba.edu.pk> **Owner:** Sagar Lekhraj **TAs:** adeenaoop, Muh-Aqib-Shah **Module 3 Branch:** Developed and committed by Sudharth Kumar

Module 3 — Complaint & Feedback System — provides IBA hostel residents with a transparent, accountable, and trackable channel for raising issues and sharing service feedback. The Complaint sub-system ensures every reported issue receives a unique ID, undergoes admin review, and delivers a visible resolution. The Feedback sub-system captures structured ratings across three service categories, enabling data-driven improvements. Together, these workflows replace informal complaint processes with a fully digital, auditable system integrated into the HMS portal.

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