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Hotel Management System

Institute of Business Administration, Karachi

WORKFLOW DOCUMENTATION — Module 3: Complaint & Feedback System

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|---|------------------------|---------------|--|
| Prepared By | Sudharth Kumar (26925) | Module | Module 3 — Complaint & Feedback System |
| Program | BSCS | Course | Web-Based Application Development |
| Version | 1.0 — Final | Date | February 2026 |
| Team: Sagar Lekhraj (Leader) — Module 1 & 2: Room Allocation & Mess Subscription Sudharth Kumar — Module 3: Complaint & Feedback System | | | |

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: Raise New Complaint and My Complaints . Empty state shown if none exist. |
| 2 | Raise Complaint | Fields: Category (Plumbing/Electrical/Cleanliness/Mess/Security/Other), Description (required), Attachment (optional JPEG/PNG max 2 MB). student_id, room_number, created_at, status 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 complaint_id, inserts record (status = Pending), redirects to My Complaints, shows success toast with Complaint ID. |
| 5 | My Complaints | Scollable 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



2.5 Admin Impact on Complaint Lifecycle

| Admin Action | System Trigger | Student Impact |
|-------------------------------|---|---|
| Mark <i>In Progress</i> | status updated in DB; updated_at refreshed | Student sees In Progress in list and detail view |
| Mark <i>Resolved</i> + Remark | status = Resolved; admin_remark saved; updated_at refreshed | Student sees Resolved and remark; rating prompt appears |
| Mark <i>Rejected</i> | status = Rejected; rejection reason 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: Hostel (overall facilities), Mess (food quality, service), or Maintenance (repair response & quality). |
| 3 | Select Rating | Select 1–5 stars (mandatory). Submitting without a rating triggers: “Please select a rating before submitting.” |
| 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: “Your feedback has been submitted successfully. Thank you!” 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.

End of Document | Module 3: Complaint & Feedback System | HMS.iba.edu.pk | Version 1.0