

**NAME:** DANDGE SHRIKANT ASHOK

**ROLL NO.:** 205223006

**CLASS:** M.Tech 1<sup>st</sup> year (Data Analytics)

**SUBJECT:** Next Gen. Database System

## **REPORT: HOSTEL WIFI FEEDBACK SYSTEM**

### **PROBLEM STATEMENT**

#### **Hostel WiFi Feedback System**

**Introduction:** To address WiFi issues in our hostels, introducing a simple and efficient solution – the Hostel WiFi Feedback System. This system makes it easy for students to report problems, ensures quick resolutions, and improves internet experiences.

#### **Key Features:**

1. User-Friendly Portals: I have created separate logins for admins, wardens, and students.
2. Student Complaints: Students can easily report WiFi problems like slow speeds or disconnections.
3. Warden Verification: Wardens will check and confirm reported issues to avoid duplicates.
4. Fast Resolution: Admins/Hostel Chiefs will fix problems quickly and update when resolved.

#### **Benefits:**

- Simplicity: It's easy for everyone to use.
- Transparency: Students can track their complaints.

## **COMPLETE DATABASE SCHEMA**

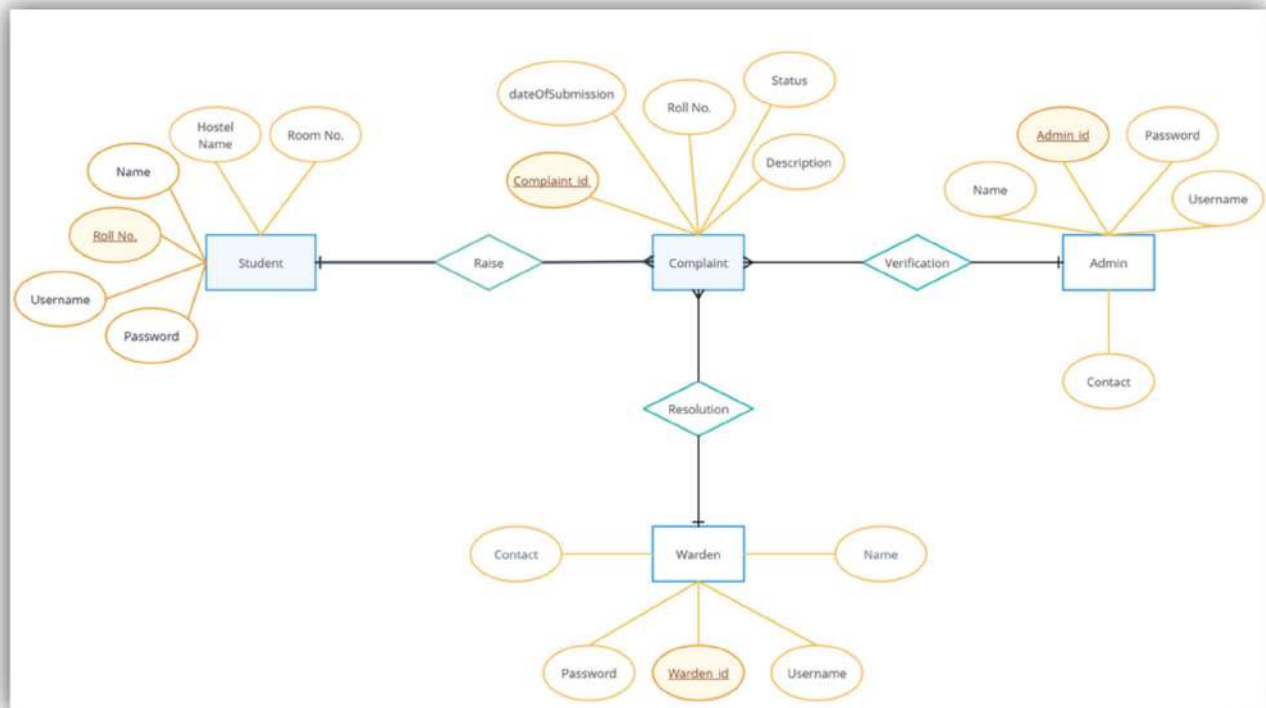
### **1). Table: Fuser Model**

Column Name	Data Type	Constraints
id	INT	PRIMARY KEY
username	VARCHAR(150)	UNIQUE, NOT NULL
password	VARCHAR(128)	NOT NULL
first_name	VARCHAR(255)	NOT NULL
last_name	VARCHAR(255)	NOT NULL
is_warden	BOOLEAN	DEFAULT False
is_admin	BOOLEAN	DEFAULT False
hostel_id	VARCHAR(255)	DEFAULT "NULL"
office_id	VARCHAR(255)	DEFAULT "NULL"

## 2). Table: Complaint Model

Column Name	Data Type	Constraints
Id	INT	PRIMARY KEY
Date_of_submission	DATE	NOT NULL
Roll_no	INT	NOT NULL, FOREIGN KEY
description	TEXT	NOT NULL
status	VARCHAR(50)	DEFAULT "Pending"

## ENTITY RELATIONSHIP DIAGRAM



## LIST OF STAKEHOLDERS

1. **Developer:** The Developing team or a particular individual developing the project.
2. **Admin:**
  - University Administrators
  - CSG Administrators
3. **Warden:**
  - Hostel Wardens

#### 4. Student:

- Students (End Users)
- Student Representatives (if applicable)
- Parents or Guardians (indirectly, as they may have concerns)

### DATABASE SCHEMA FOR EACH STAKE-HOLDER

#### Developers:

Table Name	Fields	Description
Developer	<b>id</b> (Primary Key), <b>username</b> , <b>email</b> , <b>password</b>	Information about developers working on the project.
DeveloperTask	<b>id</b> (Primary Key), <b>developer_id</b> (Foreign Key), <b>task_name</b> , <b>description</b> , <b>status</b>	Tasks assigned to each developer.
BugReport	<b>id</b> (Primary Key), <b>developer_id</b> (Foreign Key), <b>bug_description</b> , <b>status</b> , <b>date_reported</b>	Records of reported bugs and issues.

#### Admins:

Table Name	Fields	Description
Admin	<b>id</b> (Primary Key), <b>username</b> , <b>email</b> , <b>password</b>	Information about administrators.
Complaint	<b>id</b> (Primary Key), <b>student_id</b> (Foreign Key), <b>complaint_text</b> , <b>date_filed</b>	Records of student complaints.
Report	<b>id</b> (Primary Key), <b>admin_id</b> (Foreign Key), <b>report_text</b> , <b>date_generated</b>	Reports and analytics generated by administrators.

#### Wardens:

Table Name	Fields	Description
Warden	<b>id</b> (Primary Key), <b>username</b> , <b>email</b> , <b>password</b>	Information about hostel wardens.
IncidentReport	<b>id</b> (Primary Key), <b>warden_id</b> (Foreign Key), <b>incident_description</b> , <b>date_reported</b>	Records of incidents reported in hostels.

<b>Maintenance</b>	<b>id</b> (Primary Key), <b>warden_id</b> (Foreign Key), <b>maintenance_request</b> , <b>status</b> , <b>date_requested</b>	Maintenance requests and tasks.
--------------------	---	---------------------------------

#### Students:

Table Name	Fields	Description
<b>Student</b>	<b>id</b> (Primary Key), <b>username</b> , <b>email</b> , <b>password</b>	Information about students using the system.
<b>Feedback</b>	<b>id</b> (Primary Key), <b>student_id</b> (Foreign Key), <b>feedback_text</b> , <b>date_submitted</b>	Records of feedback provided by students.
<b>Issue</b>	<b>id</b> (Primary Key), <b>student_id</b> (Foreign Key), <b>issue_description</b> , <b>status</b> , <b>date_reported</b>	Records of technical issues reported by students.

## DATABASE USED AND THEIR VIEWS

**DATABASE:** Mongo DB + MySQL/Sqlite3

#### DATABASE VIEWS FOR PARTICULAR STAKE-HOLDERS:

##### 1. Developer:

- **Developers Collection:**

- Fields:

- **developer\_id** (unique identifier)
- **username** (developer's username)
- **email** (developer's email)
- **password** (hashed password)
- Other developer-specific information

##### 2. Admin:

- **Admins Collection:**

- Fields:

- **admin\_id** (unique identifier)
- **username** (admin's username)
- **email** (admin's email)
- **password** (hashed password)
- Other admin-specific information

### 3. Warden:

- **Wardens Collection:**

- Fields:
  - **warden\_id** (unique identifier)
  - **username** (warden's username)
  - **email** (warden's email)
  - **password** (hashed password)
  - Other warden-specific information

### 4. Student:

- **Students Collection:**

- Fields:
  - **student\_id** (unique identifier)
  - **username** (student's username)
  - **email** (student's email)
  - **password** (hashed password)
  - Other student-specific information

## DATABASE VIEWS FOR COMPLETE DATABASE

### 1). Fuser Model

```
1 SELECT * FROM Fuser;
```

id	username	password	first_name	last_name	is_warden	is_admin	hostel_id	office_id
1	shrikant@e...	*****	shrikant	dandge	0	0	garnet C	NULL

### 2). Complaints

```
PRAGMA table_info(Complaints);
```

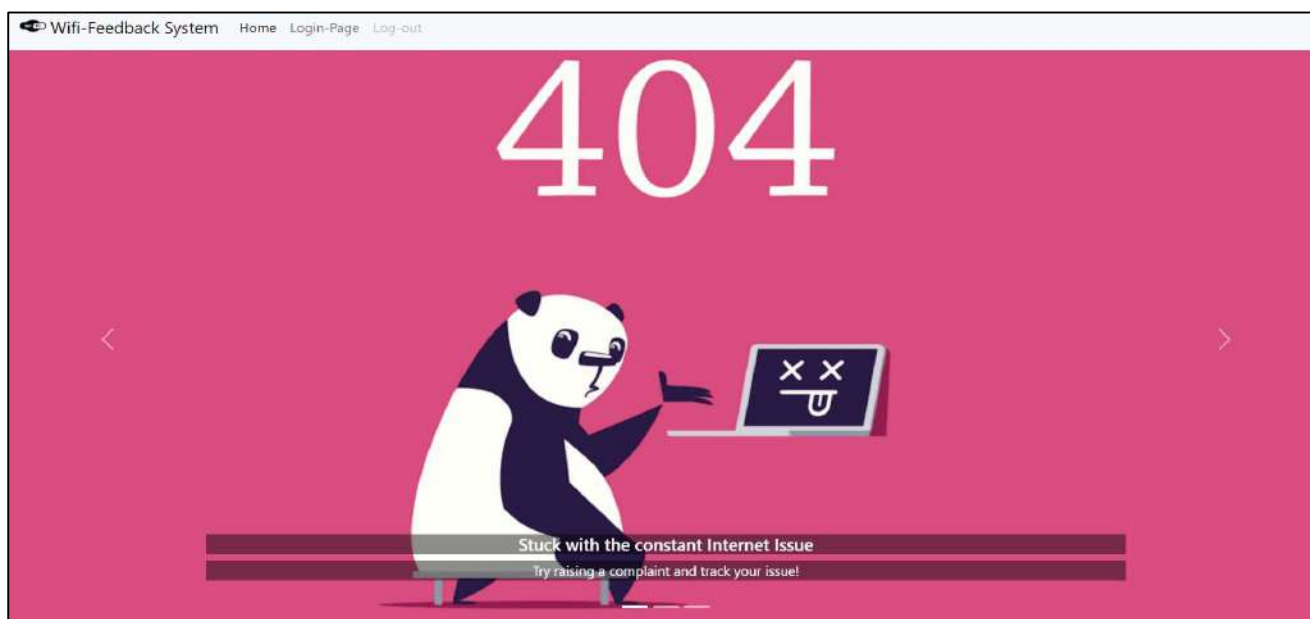
i	cid	name	type	notnull	dfit_value	pk
0		id	INTEGER	0	NULL	1
1		roll_no	INTEGER	1	NULL	0
2		date_of_submission	DATE	0	NULL	0
3		status	TEXT	0	NULL	0
4		description	VARCHAR(150)	1	NULL	0

```
SELECT * FROM Complaints;
```

i	id	roll_no	date_of_submission	status	description
1		112233	2023-10-10	pending	Experiencing slow WiFi speed...
2		445566	2023-10-09	resolved	WiFi issue fixed - now getting ...
3		778899	2023-10-08	not-resolved	WiFi still not working in the co...

## FRONTEND SCREENSHOTS

### 1). index.html -> home



### 2). Login.html -> login page

Wifi-FeedBack System
Home
Login-Page
Log-out

# LOG-IN PAGE

Based on your Role whether you are a student, warden or admin just login to the page and perform your respective tasks :)

First name
Last name

Roll No.

Email address

Password

Role
Student

☒ I agree to terms and conditions

Log-In

### 3). raise-complaint.html

Wifi-FeedBack System
Home
Login-Page
Log-out

# Complaint Form

Please fill out the following details to submit your complaint.

Roll No.

Room No.

Hostel Name

Problem Description

Submit Complaint

### 4). Student.html -> student page

Wifi-FeedBack System
Home
Login-Page
Log-out

No.	Complaint ID	Hostel Name	Verification	Resolution
1	12345	Sapphire Hostel	Verified	Resolved
2	67890	Garnet C Hostel	Not Verified	Pending
3	54321	Pearl Hostel	Verified	Resolved

### 5). Admin.html -> admin page

Wifi-FeedBack System [Home](#) [Login-Page](#) [Log-out](#)

No.	Complaint ID	Hostel Name	Verification	Resolution
1	12345	Sapphire Hostel	Verified	Resolved
2	67890	Garnet C Hostel	Not-Verified	Resolved
3	54321	Pearl Hostel	Verified	Resolved

## 6). Warden.html -> warden page

Wifi-FeedBack System [Home](#) [Login-Page](#) [Log-out](#)

No.	Complaint ID	Hostel Name	Verification	Resolution
1	12345	Sapphire Hostel	Not Verified	Resolved
2	67890	Garnet C Hostel	Not Verified	Pending
3	54321	Pearl Hostel	Verified	Resolved