

V HELP
A PROJECT REPORT

Submitted by

GOPIKA G (21BCE11434)
SANJAY V NAIR (21BCE11382)
AKSHAY MATHILAKATH NAIR (21BCE11013)
EVAN T SINTO (21BCE10995)
ADHITHYARAJ P R (21BCE10706)

*In partial fulfillment for the award of the degree
of*

BACHELOR OF TECHNOLOGY
in
COMPUTER SCIENCE AND ENGINEERING



SCHOOL OF COMPUTING SCIENCE AND ENGINEERING
VIT BHOPAL UNIVERSITY
KOTRIKALAN, SEHORE
MADHYA PRADESH - 466114

SEPTEMBER 2022

**VIT BHOPAL UNIVERSITY, KOTRIKALAN,
SEHORE**

MADHYA PRADESH – 466114

BONAFIDE CERTIFICATE

Certified that this project report titled “**V HELP**” is the bonafide work of “**GOPIKA G(21BCE11434), SANJAY V NAIR(21BCE11382), AKSHAY M NAIR(21BCE11013), EVAN T SINTO(21BCE10995), ADITHYARAJ P R(21BCE10706)**” who carried out the project work under my supervision. Certified further that to the best of my knowledge the work reported here does not form part of any other project / research work on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

PROGRAM CHAIR

Dr. Preetam Suman, Program Chair

School of Computer Science and Engineering

VIT BHOPAL UNIVERSITY

PROJECT GUIDE

Dr. Anand Motwani

School of Computer Science and Eng

VIT BHOPAL UNIVERSITY

ACKNOWLEDGEMENT

First and foremost, we would like to thank the Lord Almighty for His presence and immense blessings throughout the project work.

We would like to thank our project guide Dr. Anand Motwani, for continuously guiding and actively guiding throughout in the project, giving valuable suggestions and crucial ideas during the development phase as well the implementation phase of our project work.

Last, but not the least, we are deeply indebted to our parents who have been the greatest support while we worked on the project to bring our ideas to assist people and save their precious and valuable Time.

ABSTRACT

The aim of the project was to build a website for students which helps students to file hostel related complaints online. a website using which we aim to provide a helping hand for students as well as workers so that the students do not have to worry about problems that are not in their hand and also workers don't have a problem in sorting the wide array of problems reported in a hostel like environment. The aim of the project is to make a software/technological system which allows the students to file a complaint online and assign the complaints directly to workers according to the nature of the work.

LIST OF FIGURES

S No	Figure
1.	Use Case Scenarios
2.	Use Case Diagram
3.	Entity Relation Diagram
4.	Sequence Diagrams
5.	Class Diagrams
6.	Database Diagrams

LIST OF TABLES

S No	Figure	Page No
1.	Use case scenarios	12
2.	Tools Required	16

LIST OF ABBREVIATIONS

S No.	Abbreviation	Full Form
1	HTML	Hyper text Markup Language
2	CSS	Cascading Styling Sheets
3	PHP	Hypertext Preprocessor
4	SQL	Structured Query Language

TABLE OF CONTENTS

<u>CONTENTS</u>	<u>Page No</u>
Title Page	1
Bonafide Certificate	2
Acknowledgement	3
Abstract	4
List of Figures	5
List of Tables	6
List of Abbreviation	7
Introduction	10
Chapter 1 Requirement gathering and analysis 1.1 Nature of current method 1.2 Aim and objective of the project 1.3 Requirements of the proposed system 1.4 Use Case Scenarios 1.4.1 Student side 1.4.2 Worker side 1.4.3 Admin side 1.5 Use Case Diagram 1.6 Tools Required	11

Chapter 2 System Design 2.1 ER Diagram 2.2 Sequence Diagram 2.3 Class Diagram 2.4 Database Diagram	17
Chapter 3 Implementation 3.1 Logic for Backend	21
Chapter 4 Integration and Testing 4.1 Database 4.2 Frontend 4.3 Backend	23
Chapter 5 Deployment of System	27
Chapter 6 Maintenance	32
Conclusion	33
References	33

INTRODUCTION

When we started our hostel life, we were forced to face the changes and adapt to a totally different surrounding this accompanied with the issues inside the hostel room caused physical as well as mental stress Hence, we set out to provide a solution for students so that we can help them in conveying the problem or issue that they face in their daily hostel life, We also aim to provide a service that at the same time provides a platform on which workers can find sorted complains from the said students. Our website also aims in assisting the admins in the payment process of the workers as the workers that have completed and not completed the said complaints have been sorted.

V-HELP is a website using which we aim to provide a helping hand for students as well as workers so that the students do not have to worry about problems that are not in their hand and also workers don't have a problem in sorting the wide array of problems reported in a hostel like environment.

1.Requirement Gathering and Analysis

1.1 Why a change?

As mentioned earlier, the hostel in the university had a traditional complaint system where if there is any complaint, we needed to go to the security setup and file a written complaint for electric, furniture and cleaning related issues. This not only required the student to go to there physically, but also the distribution of work was also quite hard.

1.2 Aim

The aim of the project is to make a software/technological system which allows the students to file a complaint online and assign the complaints directly to workers according to the nature of the work. Also giving the admin the ultimate ability to see which complaints have been resolved, who filed it, who completed the work, which works are pending etc. This way the admin can directly administer the complaints in the particular hostel without the need to go through different types of files.

1.3 Requirements

1. Registration
2. Login
3. Complaint Submission
4. Complaint editing
5. Complaint Status Review
6. Complaint Acceptance
7. Complaint Feedback System
8. Complaint overview for admin

1.4 Use Case Scenarios

1.4.1 Student side

Use Case ID	UC_1
Use Case	Registration
Action	Student enter username and password to create an account
Description	Users register themselves to the portal
Pre-condition	None
Post condition	Users can now login

Use Case ID	UC_2
Use Case	Login
Action	Student log in to their account by entering username and password
Description	Users are now logged into their account
Pre-condition	Must be registered
Post condition	Users can now file and view the complaints

Use Case ID	UC_3
Use Case	Complaint Filing
Action	Student files a complaint
Description	Users' complaint a file into the specific type of complaint category
Pre-condition	Must be logged in
Post condition	User complaint filed and complaint table in database updated

Use Case ID	UC_4
Use Case	Complaint Status Review
Action	Student views their complaints' status
Description	Users' can view the status of their complaint and know if someone has took the job
Pre-condition	Must be logged in
Post condition	None

Use Case ID	UC_5
Use Case	Complaint Confirmation
Action	Student Confirms the completion of the job
Description	Users' can confirm that the complaint has been resolved and can submit the confirmation
Pre-condition	Must be logged in and worker must resolve the complaint
Post condition	Confirmation status is updated to completed

1.4.2 Worker side

Use Case ID	UC_W1
Use Case	Registration
Action	Worker enter username and password to create an account
Description	Users register themselves to the portal
Pre-condition	None
Post condition	Users can now login

Use Case ID	UC_W2
Use Case	Login
Action	Student log in to their account by entering username and password
Description	Users are now logged into their account
Pre-condition	Must be registered
Post condition	Users can now view and access the complaints

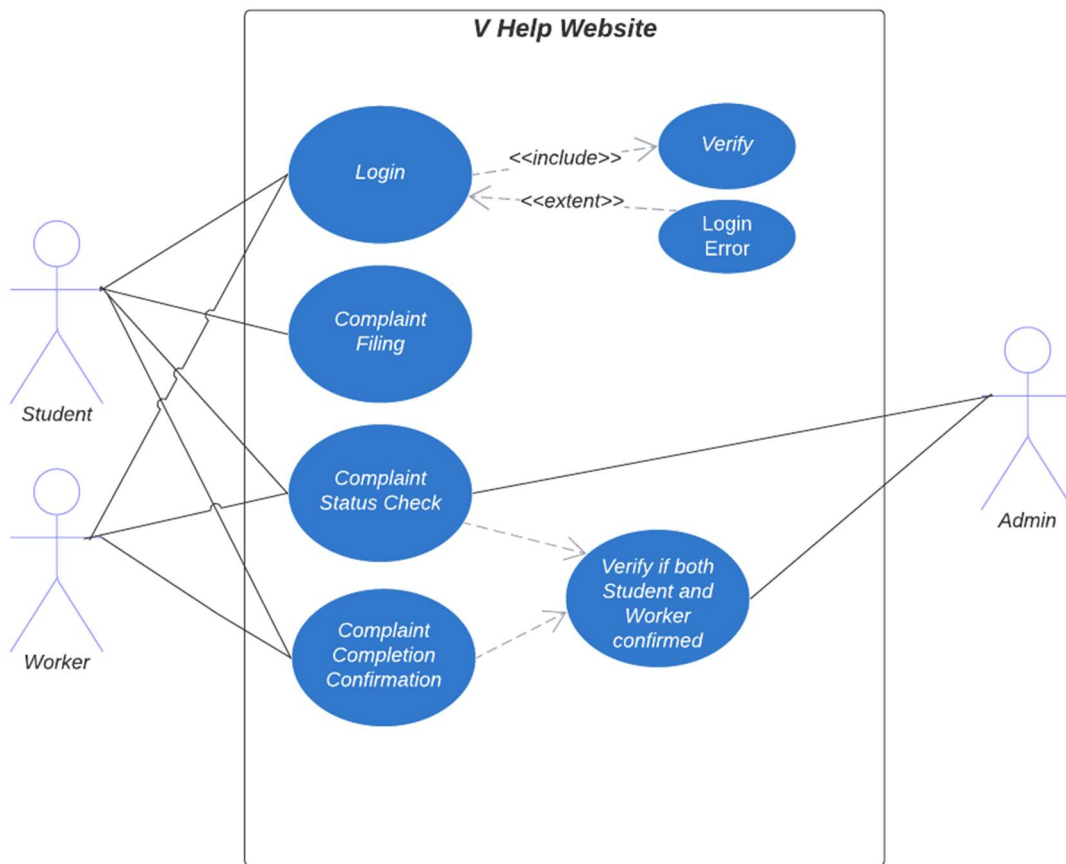
Use Case ID	UC_W3
Use Case	Complaint Accept
Action	Worker accepts a complaint
Description	Users' accept a complaint which is already sorted and shown according to their roles
Pre condition	Must be logged in
Post condition	Complaint status updates to accepted, worker_id stores reg no of worker.

Use Case ID	UC_W4
Use Case	Complaint Confirmation
Action	Worker Confirms the completion of the job
Description	Users' can confirm that the complaint has been resolved and can submit the confirmation
Pre-condition	Must be logged in and worker must resolve the complaint
Post condition	Confirmation status is updated to completed

1.4.3 Admin side

Use Case ID	UC_Admin
Use Case	Login
Action	Admin log in to their account by entering username and password
Description	Logged in as admin
Pre-condition	Must be the admin
Post condition	Admin can now view and access the complaint statuses and alter user data

1.5 Use Case Diagram

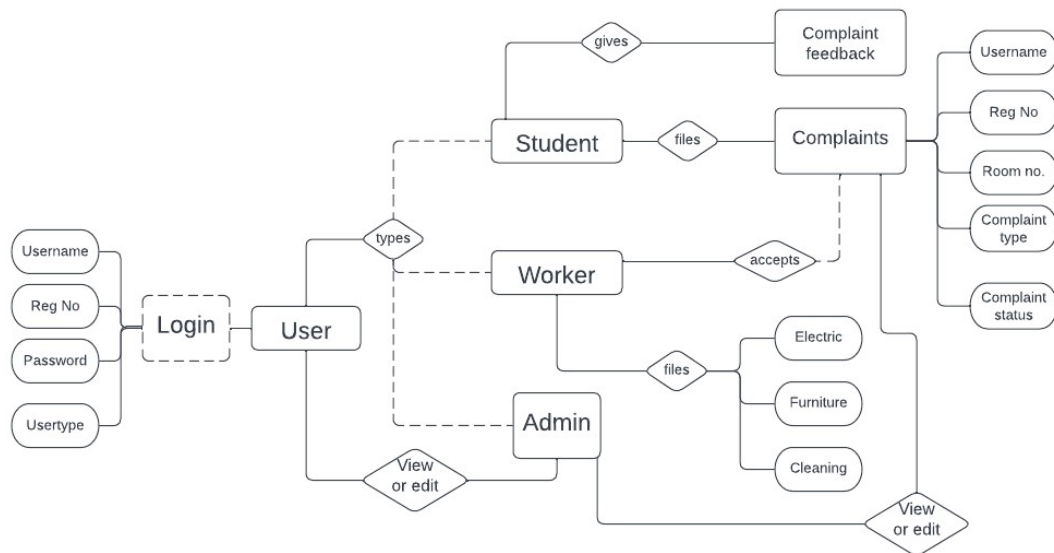


1.6 Tools Required

Tools used	Used for
HTML	Frontend development
CSS	Styling of frontend UI
Bootstrap	Templates of Frontend
Php	Backend logic
MySQL	Database
Apache	Hosting of Website
VS code	Development IDE
Xampp	Development Enironment

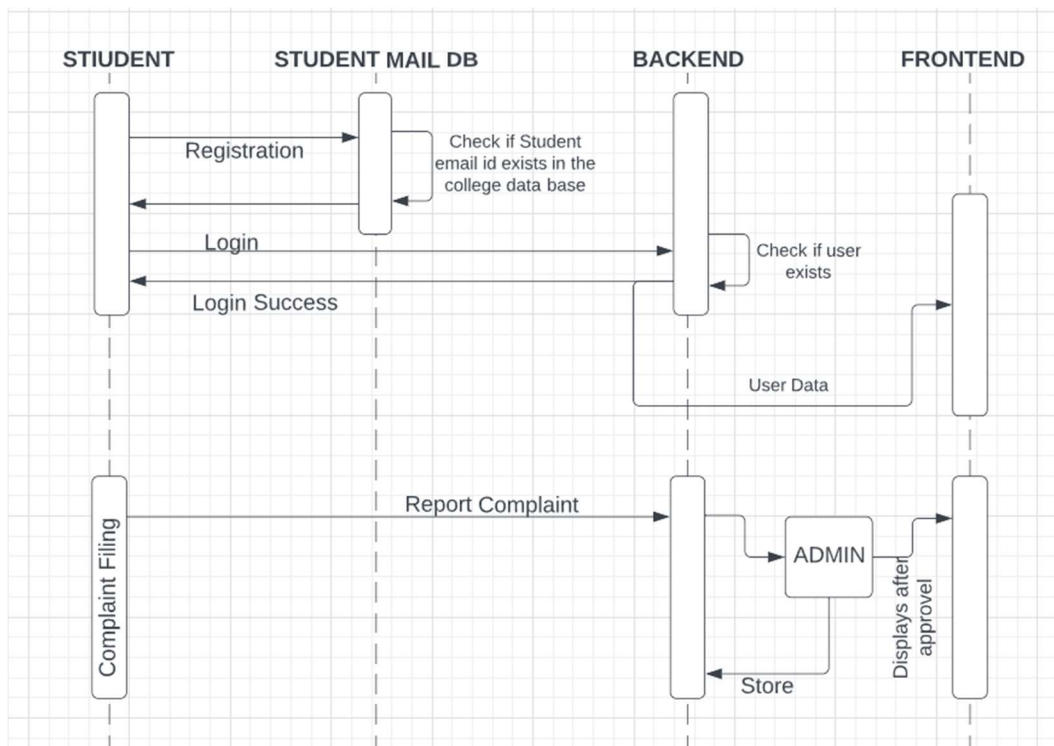
2. System Design

2.1 ER Diagram

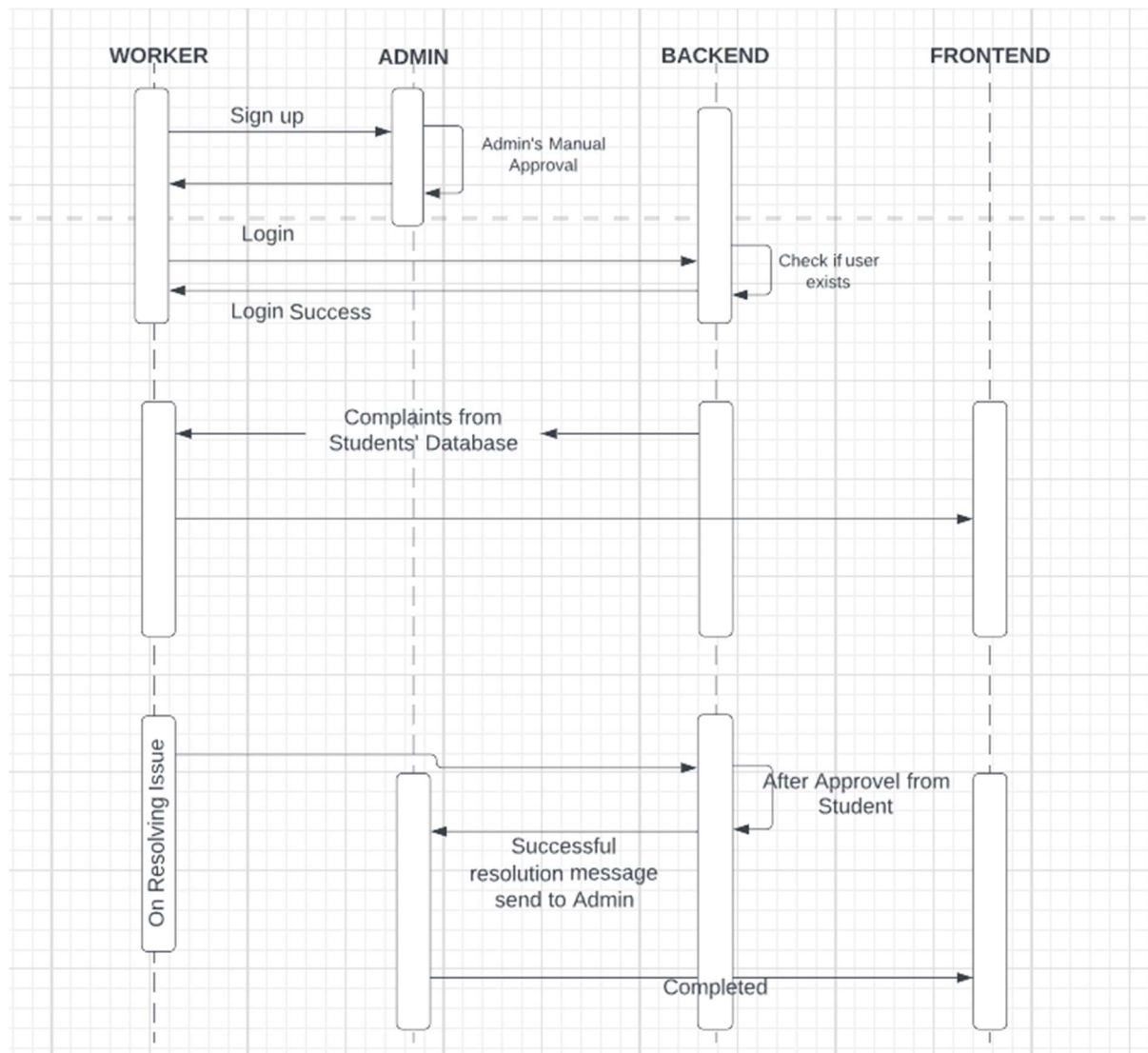


2.2 Sequence Diagram

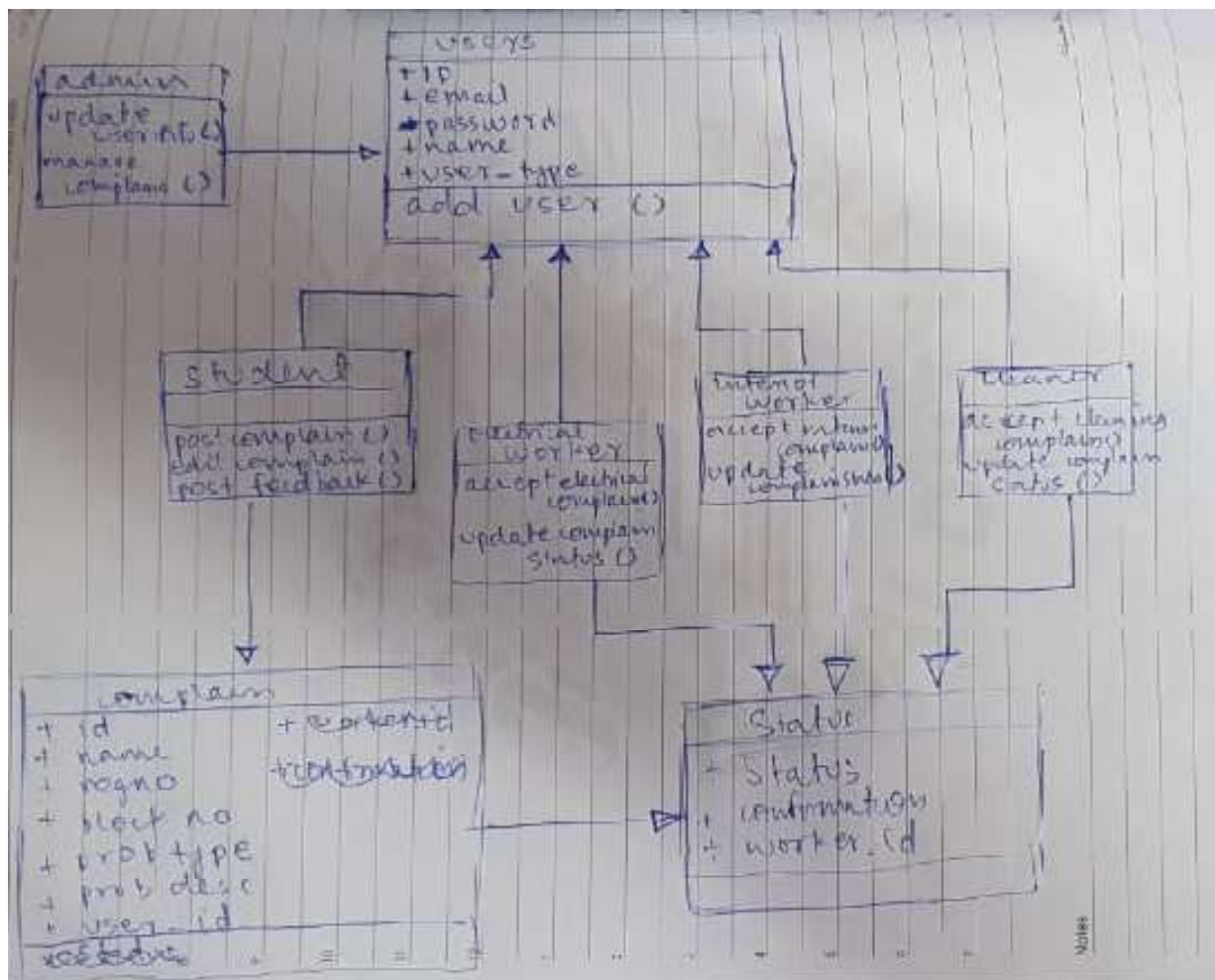
For Student



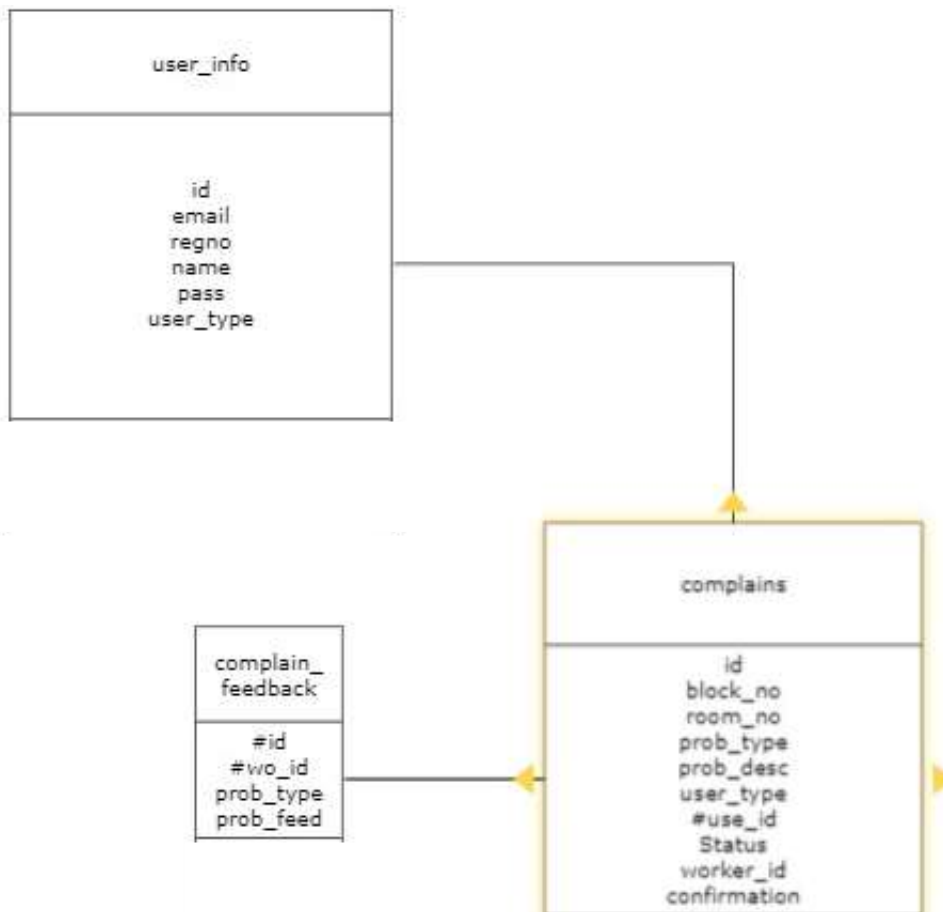
For Worker



Class Diagram



Database Diagram



3. Implementation

REGISTER

For a user that is using our website for the first time the person will have to provide the requested information which includes their registration number, name, email, password, user type of user they are etc

hence all this data is then stored in the table: 'user_info' the admin from the admin panel can review this user as this person's information will displayed on users section in the admin panel hence the admin can then update or delete the user based on the genuity of his information

SIGN IN

Now to sign into the website the person will have to enter his/her registration number, email and password for the account that was used during registration after the login button is pressed the information that was entered for the log in into the form will be fetched and then crosschecked with the information that was

stored in the table: 'user_info' using the function: 'mysqli_fetch_assoc' we can fetch the user_info from the table and using a for loop to run this function as many times as the number of rows that are present in the user_info table

Hence, these cross checks the users that have already registered. Based on the user type the user selected during Sign up process the user will be directed to the website of that particular user type accordingly.

STUDENT COMPLAIN FILING

To file a complain the student users can open up the file a complain pop window in which the information that is entered regarding the complain is then stored into the table: 'complains'

using the 'INSERT' function and then the complaint posted by this user is displayed in the complaints section of the student home page where information from the table is selected according to the unique registration number of the user using the 'SELECT *' function

here the user can also update the said complaint filed using the update , delete buttons respectively. These buttons work using the 'DELETE' and 'UPDATE' functions respectively

WORKER JOB ACCEPTANCE

The workers based on the domain of specialization which was specified during registration will have complaints displayed on their home page which are of their type in which they can take up a particular complain to solve it by pressing the 'accept' button which update the value of the attribute 'Status' from its default value of 'pending' to 'accepted' this will also lead to the update of the value of 'worker_id' as well from 'None' to the registration number of the worker

all this done using the 'UPDATE' function.

4. Integration and Unit Testing

4.1 Database

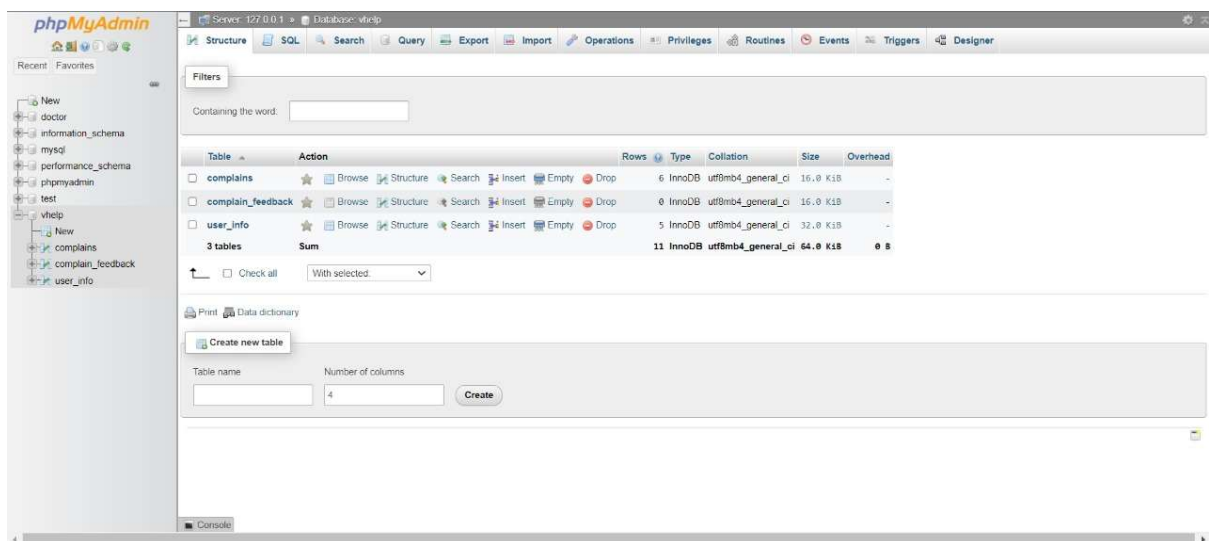


Fig.4.1.1 Overview of the entire database

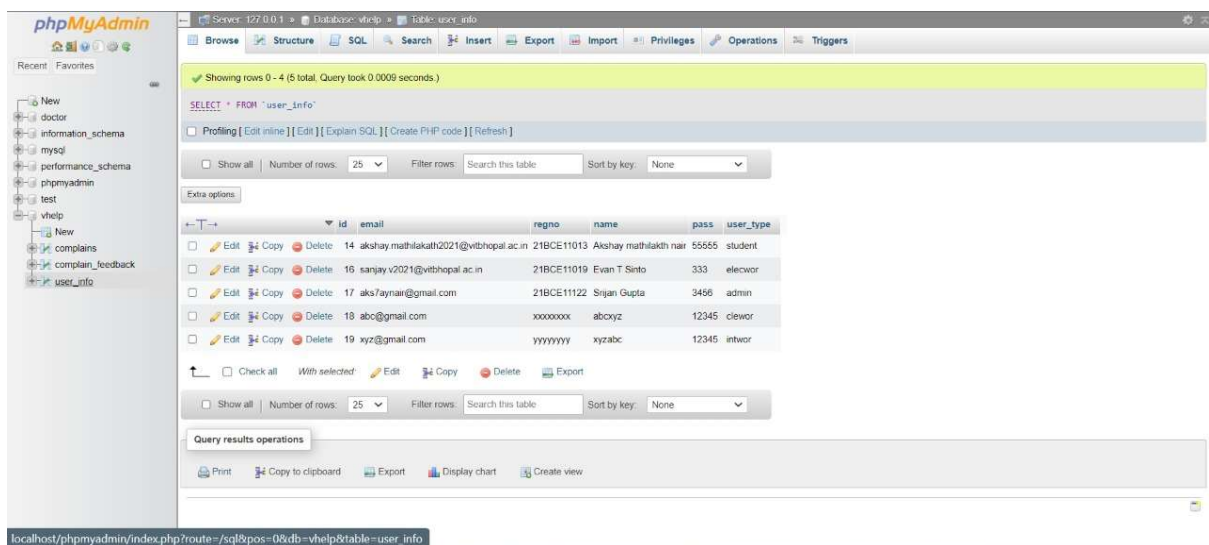


Fig. 4.1.2 User info table

Showing rows 0 - 5 (6 total, Query took 0.0003 seconds)

```
SELECT * FROM `complaints`
```

Number of rows: 25 Filter rows: Search this table Sort by key: None

	id	name	regno	block_no	room_no	prob_type	prob_desc	user_id	Status	worker_id	confirmation
<input type="checkbox"/>	47	akshay	21BCE11013	Block 1	642	cle	Room has not been cleaned for 2 days	14	pending	None	not_confirmed
<input type="checkbox"/>	48	akshay	21BCE11013	Block 1	642	int	Cupboard Door has broken	14	pending	None	not_confirmed
<input type="checkbox"/>	49	ram	*****	Block 2	342-B	elec	Fan not working	20	pending	None	not_confirmed
<input type="checkbox"/>	50	ram	*****	Block 2	342-B	cle	Room to be mopped	20	pending	None	not_confirmed
<input type="checkbox"/>	53	ram	*****	Block 2	342-B	int	shelf lock not working	0	pending	None	not_confirmed
<input type="checkbox"/>	54	akshay	21BCE11013	Block 1	642	elec	fan not working	0	Done	21BCE11019	not_confirmed

Query results operations: Print, Copy to clipboard, Export, Display chart, Create view

Fig. 4.1.3 Complaints table

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0003 seconds)

```
SELECT * FROM `complain_feedback`
```

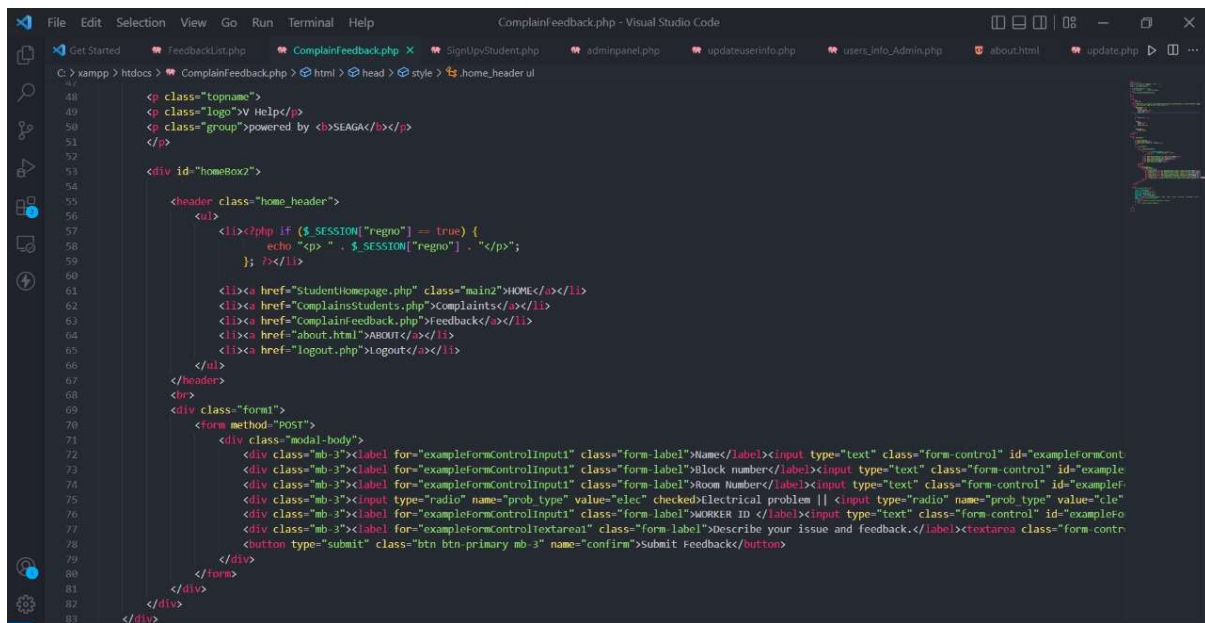
Number of rows: 25 Filter rows: Search this table Sort by key: None

Query results operations: Create view

Fig. 4.1.4 Student feedback table

4.2 Frontend

Fig. 4.2 Frontend Code which is used in feedback form



```

48 <p class="topname">
49 <p class="logo">V Help</p>
50 <p class="group">powered by <b>SEAGA</b></p>
51 </p>
52
53 <div id="homeBox2">
54
55 <header class="home_header">
56 <ul>
57 <li><?php if ($SESSION["regno"] == true) {
58 <li><?php if ($SESSION["regno"] == true) {
59 <li><?php if ($SESSION["regno"] == true) {
60 <li><?php if ($SESSION["regno"] == true) {
61 <li><?php if ($SESSION["regno"] == true) {
62 <li><?php if ($SESSION["regno"] == true) {
63 <li><?php if ($SESSION["regno"] == true) {
64 <li><?php if ($SESSION["regno"] == true) {
65 <li><?php if ($SESSION["regno"] == true) {
66 <li><?php if ($SESSION["regno"] == true) {
67 <li><?php if ($SESSION["regno"] == true) {
68 <li><?php if ($SESSION["regno"] == true) {
69 <li><?php if ($SESSION["regno"] == true) {
70 <li><?php if ($SESSION["regno"] == true) {
71 <li><?php if ($SESSION["regno"] == true) {
72 <li><?php if ($SESSION["regno"] == true) {
73 <li><?php if ($SESSION["regno"] == true) {
74 <li><?php if ($SESSION["regno"] == true) {
75 <li><?php if ($SESSION["regno"] == true) {
76 <li><?php if ($SESSION["regno"] == true) {
77 <li><?php if ($SESSION["regno"] == true) {
78 <li><?php if ($SESSION["regno"] == true) {
79 <li><?php if ($SESSION["regno"] == true) {
80 <li><?php if ($SESSION["regno"] == true) {
81 <li><?php if ($SESSION["regno"] == true) {
82 <li><?php if ($SESSION["regno"] == true) {
83 <li><?php if ($SESSION["regno"] == true) {

```

```
File Edit Selection View Go Run Terminal Help WorkerElectrical.php - Visual Studio Code
1.php ComplainStudents.php email-verification.php LoginStudent.php WorkerElectrical.php temp111_with_id(1).v temp111.v full_addr_4_bit(1).v decoder_2xk_data.v
C:\xampp\htdocs > WorkerElectrical.php > html > head > link
136 $regno1 = $_SESSION['regno1'];
137 $query1 = mysqli_query($conn, "SELECT * FROM `complaints` WHERE `status`='pending' && `prob_type`='elec'");
138 $query2 = mysqli_query($conn, "SELECT * FROM `complaints` WHERE `status`='accepted' && `prob_type`='elec' && worker_id='$regno1'");
139 $rowcount1 = mysqli_num_rows($query1);
140 $rowcount2 = mysqli_num_rows($query2);
141 // $row = mysqli_fetch_array($query1);
142 // $worker_id = $row["worker_id"];
143 // echo $row["Status"];
144
145 >
146 <table class="table" id="table" border="1">
147 <thead>
148 <tr>
149 <th scope="col">Name</th>
150 <th scope="col">Registration No:</th>
151 <th scope="col">Block No:</th>
152 <th scope="col">Room No:</th>
153 <th scope="col">Problem description:</th>
154 <th scope="col">ACCEPT</th>
155
156 </tr>
157 </thead>
158 </table>
159 for ($i = 1; $i <= $rowcount1; $i++) {
160     $row = mysqli_fetch_array($query1);
161     $id = $row["id"];
162
163     <tbody>
164     <tr>
165         <td><?php echo $row["name"] ?></td>
166         <td><?php echo $row["regno"] ?></td>
167         <td><?php echo $row["block_no"] ?></td>
168         <td><?php echo $row["room_no"] ?></td>
169         <td><?php echo $row["prob_desc"] ?></td>
170         <td>
```

5. Deployment of System

Sign Up

Fig. 5.1 User registration page

V Help
powered by **SEAGA**

STUDENT SIGN UP

Email address

Enter your VIT Bhopal Email ID.

Registration Number

Name

☐ Student ||
 ☐ Electrical Staff ||
 ☐ Cleaning Staff ||
 ☐ Interior maintenance Staff

Password

Confirm Password

[Already a Member? Sign In Here](#)

Login

Fig. 5.2 User Login page

V Help
powered by **SEAGA**

Email address

Enter your Email id.

Registration Number

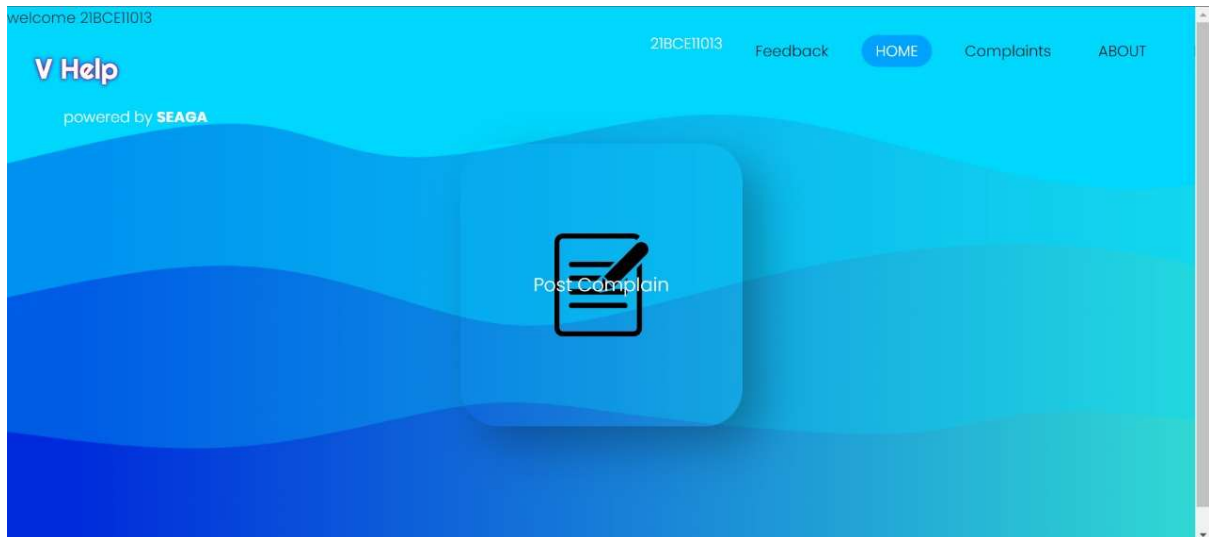
Password

I am a :
 ☐ Student |
 ☐ Electrical Worker |
 ☐ furniture maintenance |
 ☐ Cleaner |
 ☐ admin |

[Not a Member? Sign Up Here](#)

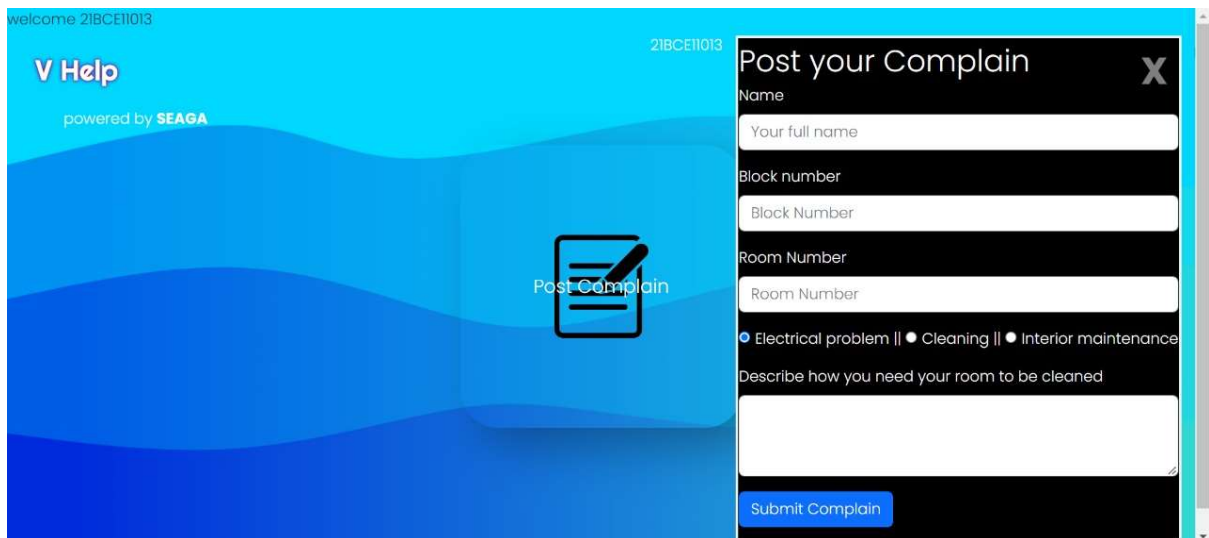
Student Homepage

Fig. 5.3 Student home page



Posting Complaint

Fig. 5.4 Student complaint posting section

The screenshot shows the 'Post your Complain' form on the Student Homepage. The form is a dark blue overlay with a close button (X) in the top right corner. It contains the following fields and options:

- Name:** A text input field with the placeholder 'Your full name'.
- Block number:** A text input field with the placeholder 'Block Number'.
- Room Number:** A text input field with the placeholder 'Room Number'.
- Complaint Type:** A row of three radio buttons with labels: 'Electrical problem ||', 'Cleaning ||', and 'Interior maintenance'.
- Description:** A text area with the placeholder 'Describe how you need your room to be cleaned'.
- Submit Button:** A blue button labeled 'Submit Complain'.

The background of the page is the same blue gradient with wavy patterns as in Fig. 5.3.

Complaint Status

Fig. 5.5 Status of the complaint made by Student

welcome 21BCE11013

V Help
powered by SEAGA

21BCE11013 Feedback HOME Complaints About Logout

Complains

Registration No:	Block No:	Room No:	Problem Type	Problem description:	Status	Worker ID	Confirm completion	DELETE	UPDATE
21BCE11013	Block 1	642	int.	Cupboard Door has broken	pending	None	Confirm	Delete	EDIT/UPDATE
21BCE11013	Block 1	642	on	fan not working	pending	None	Confirm	Delete	EDIT/UPDATE

Worker Homepage

Fig. 5.6 Workers' home page showing relevant jobs

welcome 21BCE11019

V Help
powered by SEAGA

21BCE11019 Logout

Electrical Problems Reported:Jobs Available

Name1	Registration No:	Block No:	Room No:	Problem description:	ACCEPT
ram	*****	Block 2	342-B	Fan not working	Accept

Worker Job Status

Fig. 5.7 Worker able to see which jobs he/she accepted and what their statuses are

Electrical Problems Reported:Jobs Available

Name1	Registration No:	Block No:	Room No:	Problem description:	ACCEPT
ram	*****	Block 2	342-B	Fan not working	<div style="background-color: #e74c3c; color: white; padding: 10px; display: inline-block; border-radius: 10px;">Accept</div>

Under Progress

Name	Registration No:	Block No:	Room No:	Problem description:	ACCEPT
akshay	21BCE11013	Block 1	642	fan not working	<div style="background-color: #e74c3c; color: white; padding: 10px; display: inline-block; border-radius: 10px;">Done</div>

Student Feedback

Fig. 5.8 Student will be able to give feedback

welcome 21BCE11013
21BCE11013 [HOME](#) [Complaints](#) [Feedback](#) [ABOUT](#) [Logout](#)

V Help
powered by **SEAGA**

Name

Block number

Room Number

☐Electrical problem || ☒Cleaning || ☐Interior maintenance

WORKER ID

Describe your issue and feedback.

[Submit Feedback](#)

Admin page

welcome 21BCE11122

V Help
powered by SEAGA

[Complains](#) [users](#) [Response](#) [Logout](#) [Feedback](#)

Complains

Registration No:	Block No:	Room No:	Problem Type	Problem description:	Worker ID	Confirm completion
21BCE11013	Block 1	642	cle	Room has not been cleaned for 2 days	None	confirmed
21BCE11013	Block 1	642	int	Cupboard Door has broken	None	not_confirmed
*****	Block 2	342-B	cle	Room to be mopped	None	not_confirmed
*****	Block 2	342-B	int	shelf lock not working	None	not_confirmed

Complains Accepted

6. Maintenance and future work

- Bug testing and analysis.
- Providing a feedback system as well to the students to give feedback to the workers on how they have done their job.
- Adding a system which send request for mess food to get delivered directly to the rooms of people who are injured and are unable to travel to the mess.
- We also plan to provide the admin an option to pay workers who have satisfied the student's complaints in time and efficiently.
- The ability for admin to further filter out and remove fake users from the website to improve the quality of the users.

CONCLUSION

The website helps the students to file, update and delete complaints which can be then further accepted and satisfied by the workers, who will through this website get complaints that are sorted according to their specializations.

We were able to understand the problems of the students more and implement solutions accordingly in the website. More than anything we were able to push ourselves and find new methods to do things.

REFERENCES

- <https://www.visual-paradigm.com/guide/uml-unified-modeling-language/what-is-class-diagram/>
- <https://www.w3schools.com/>
- https://www.youtube.com/watch?v=QpdhBUYk7Kk&ab_channel=LucidSoftware
- <https://www.lucidchart.com/>
- <https://www.geeksforgeeks.org/>
- <https://stackoverflow.com/>