



MAINTENANCE OF COMPLAINT REDRESSAL SYSTEM

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1. OVERVIEW AND SPECIFICATIONS

1.1 PROJECT OVERVIEW

In Railway quarter Solving of Electric Complain is a very hassled process. Quarter Holders have to submit application in various offices and most of the time they are not solved by the negligence of the technician.

So the primary objective of this project is to build a simplified approach to raise a complaint through icons/pictures of a pre-provided list ,also with providing brief description.

1.2 PROJECT DESCRIPTION

- **The system will follow a process in which quarter holder can raise electrical complaints through mobile application after registering as a ‘USER’ using his/her provident fund number and other necessary details.**
- **After receiving the complaints the system will forward the details to the concerned substation in charge’s account with complaint ID.**
- **After attending the complaint the substation in charge should enter data in the system like status of the complaint with secure code provided by complainer to verify the complaint attended or not.**
- **Admin can view and monitor all the statistics regarding complain.**

1.3 PURPOSE

- To build a simplified system of registering complaint and solve the particular complain.
- The existing system is very complicated and not fully reliable. So the main purpose is to build a user friendly and authentic application for solving complain.

1.4 PROJECT OBJECTIVE

- Admin will verify the user by matching their provident fund id. Which increase the security of the system.
- User can Add photo of the complaint equipment for better understanding of the staff
- User friendly approach to raise a complaint through icons/pictures through pre-provided list ,also with providing brief description.
- Generating a secure code which will be provided to the staff whenever had resolved the issue only after resolving which will verify its authenticity.

2. SOFTWARE SPECIFICATION

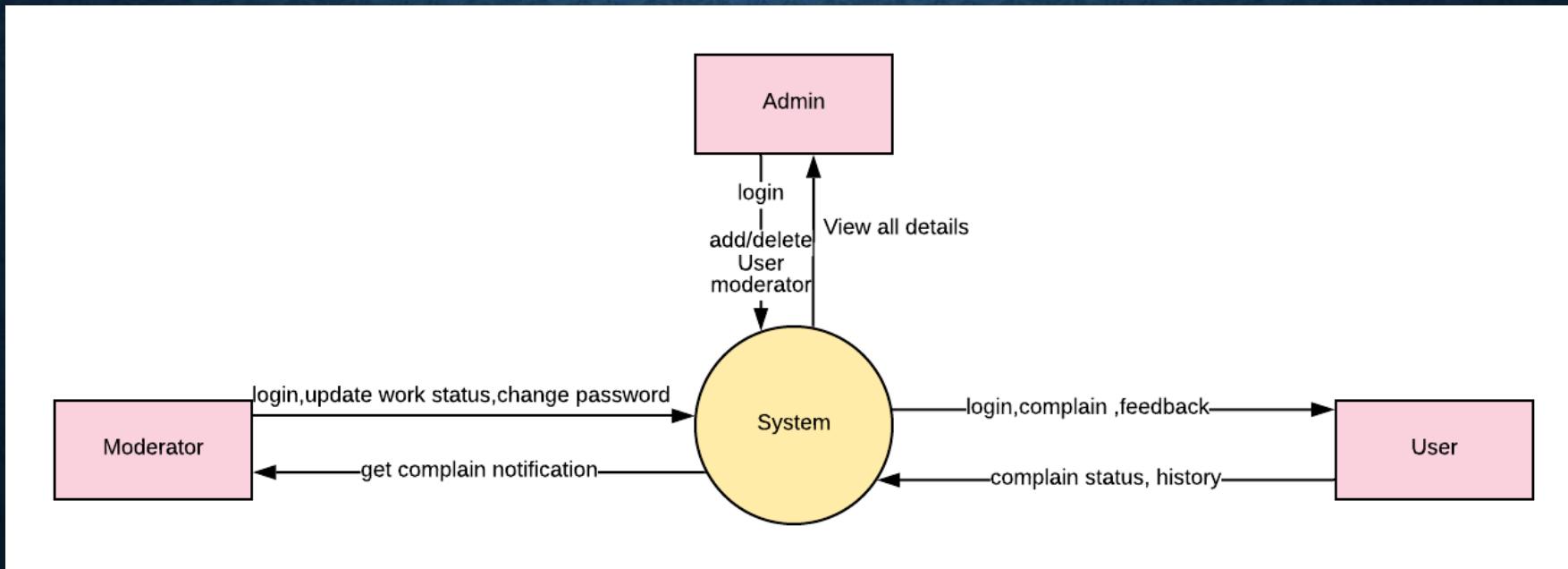
Technology Implemented :	ANDROID APPLICATION
Language Used :	ANDROID, JAVA, PHP
Database :	My SQL 5.5
User Interface Design:	XML,HTML, CSS, JAVASCRIPT

3. HARDWARE SPECIFICATION

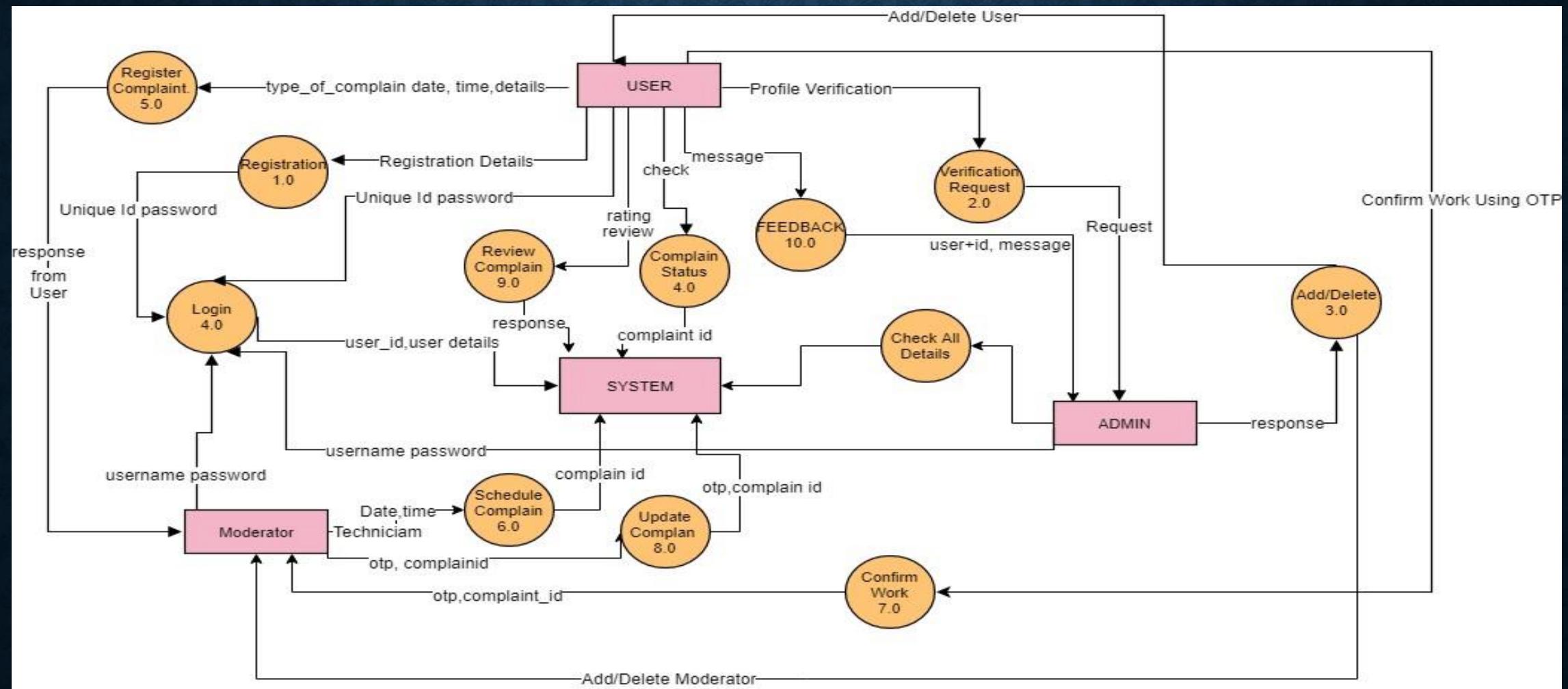
Processor	:	Icore3, AMD or Higher Version.
Operating System :		WINDOWS 10,WINDOWS 8, WINDOWS 7,
RAM	:	1GB ,2GB recommended
Hardware Devices:		Keyboard with mouse
Hard disk	:	250GB OR MORE
Display	:	Standard Output Display

4. DETAILED TECHNICAL DESIGN SPECIFICATIONS

4.1 DATA FLOW DIAGRAM

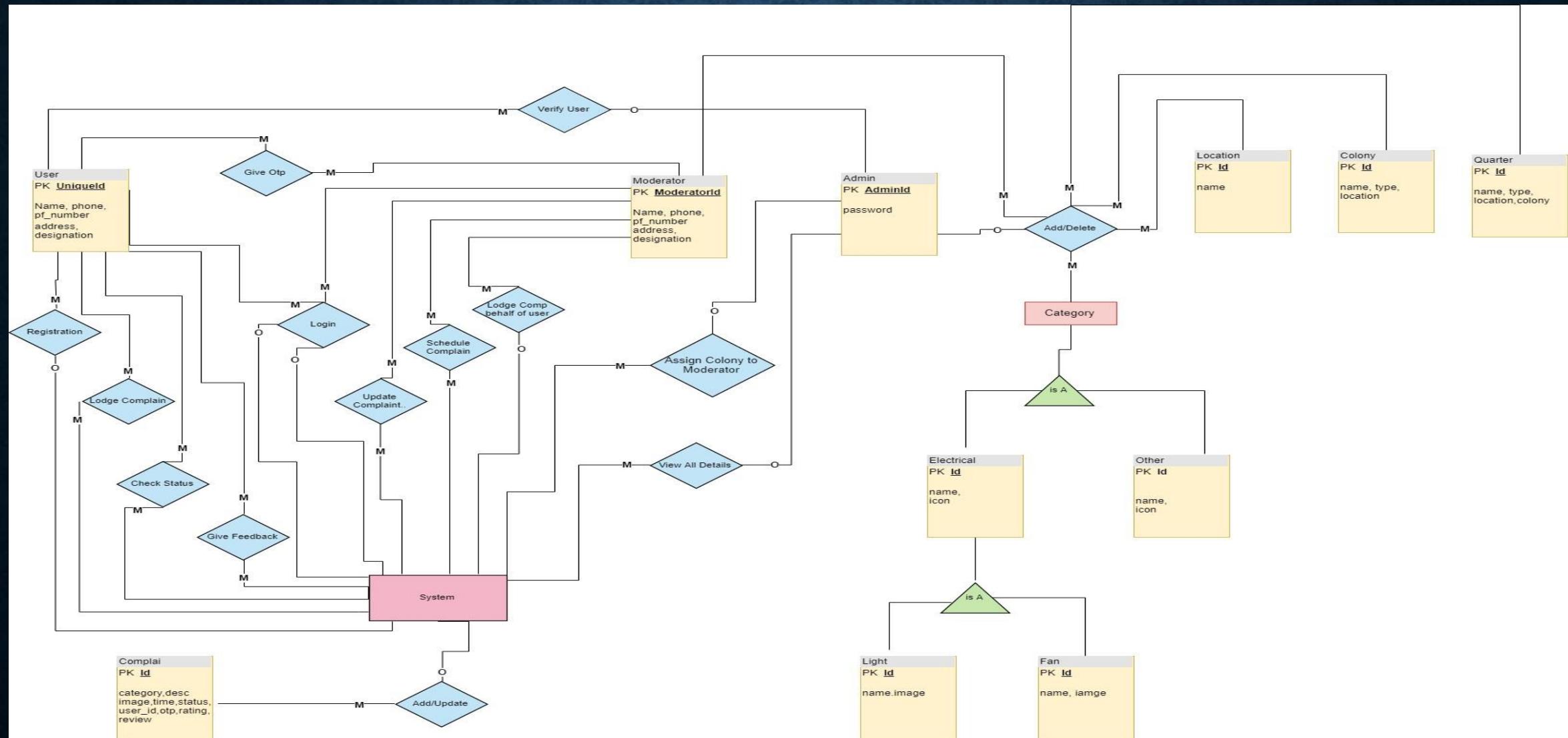


LEVEL 0

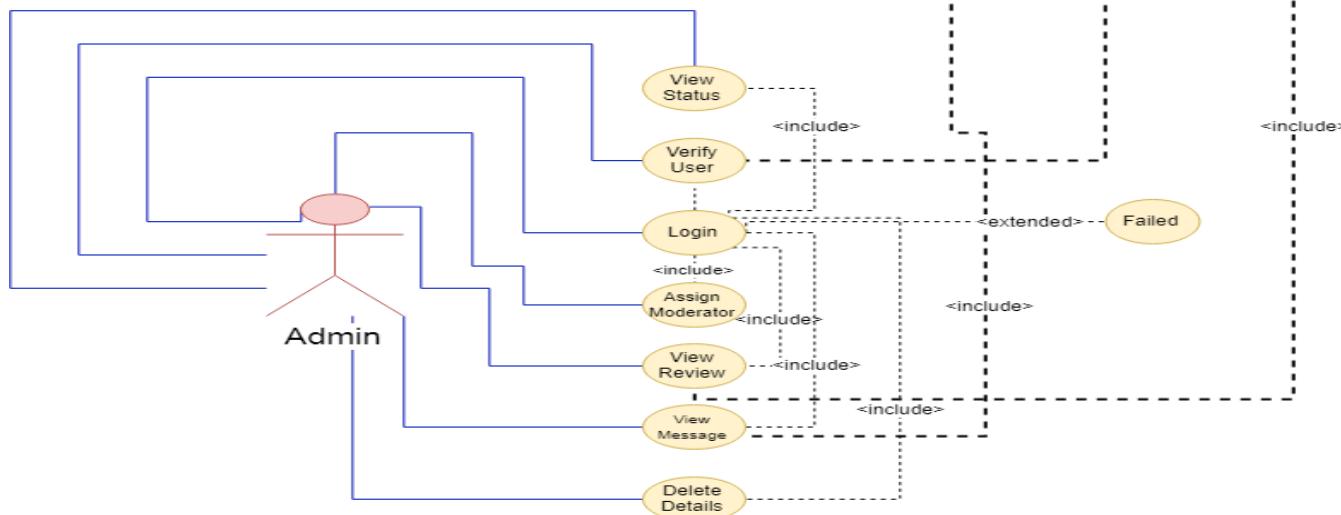
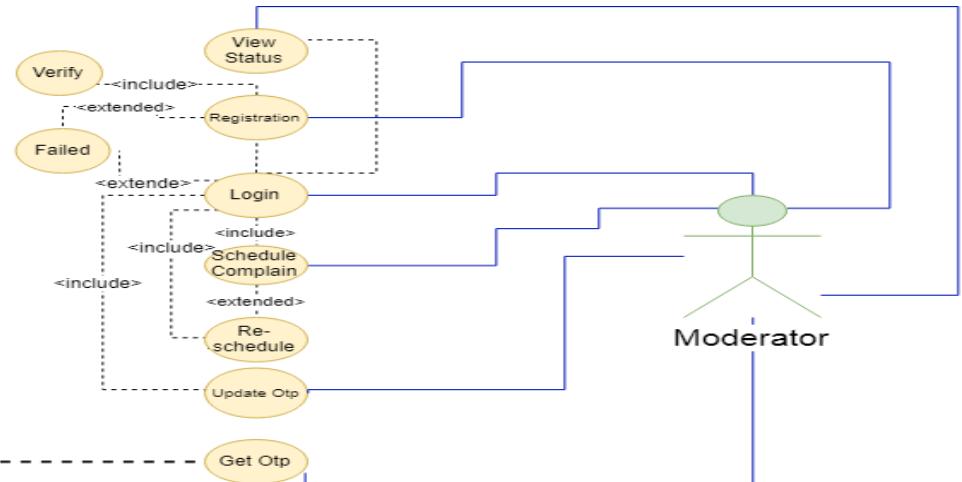
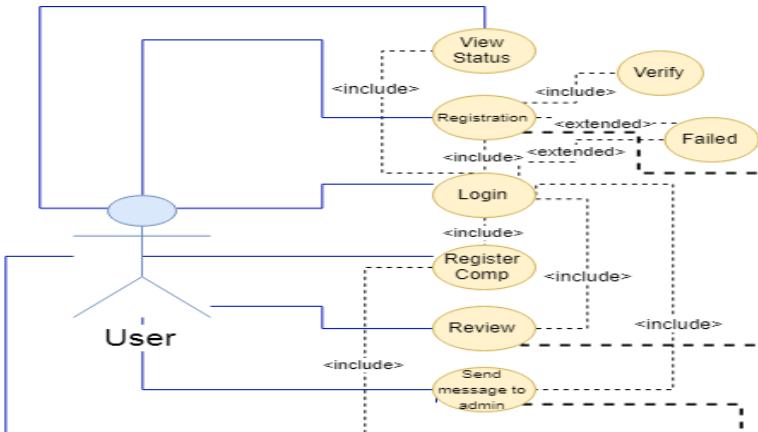


LEVEL 1

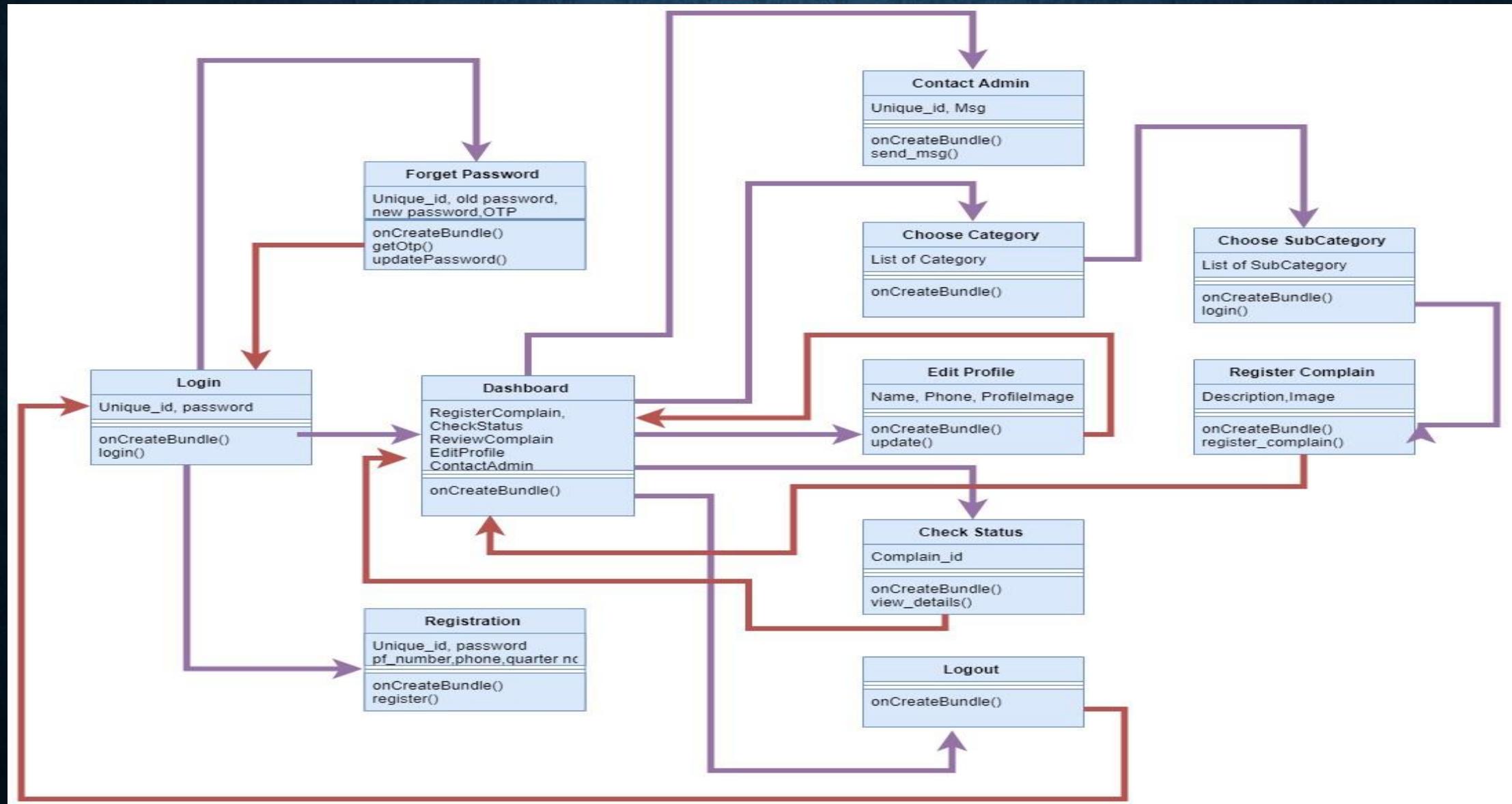
4.2 ENTITY RELATIONSHIP DIAGRAM



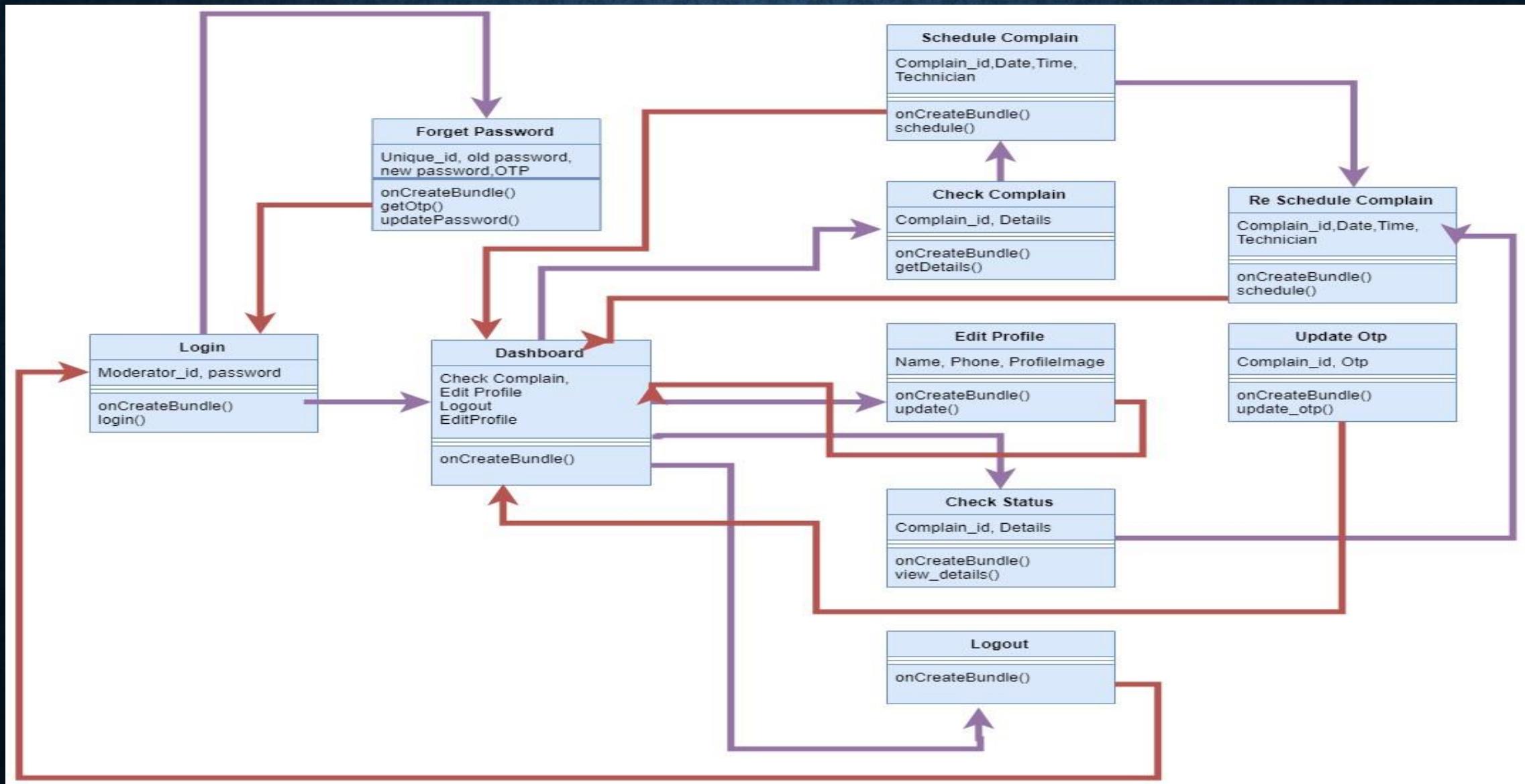
4.3 USE CASE DIAGRAM



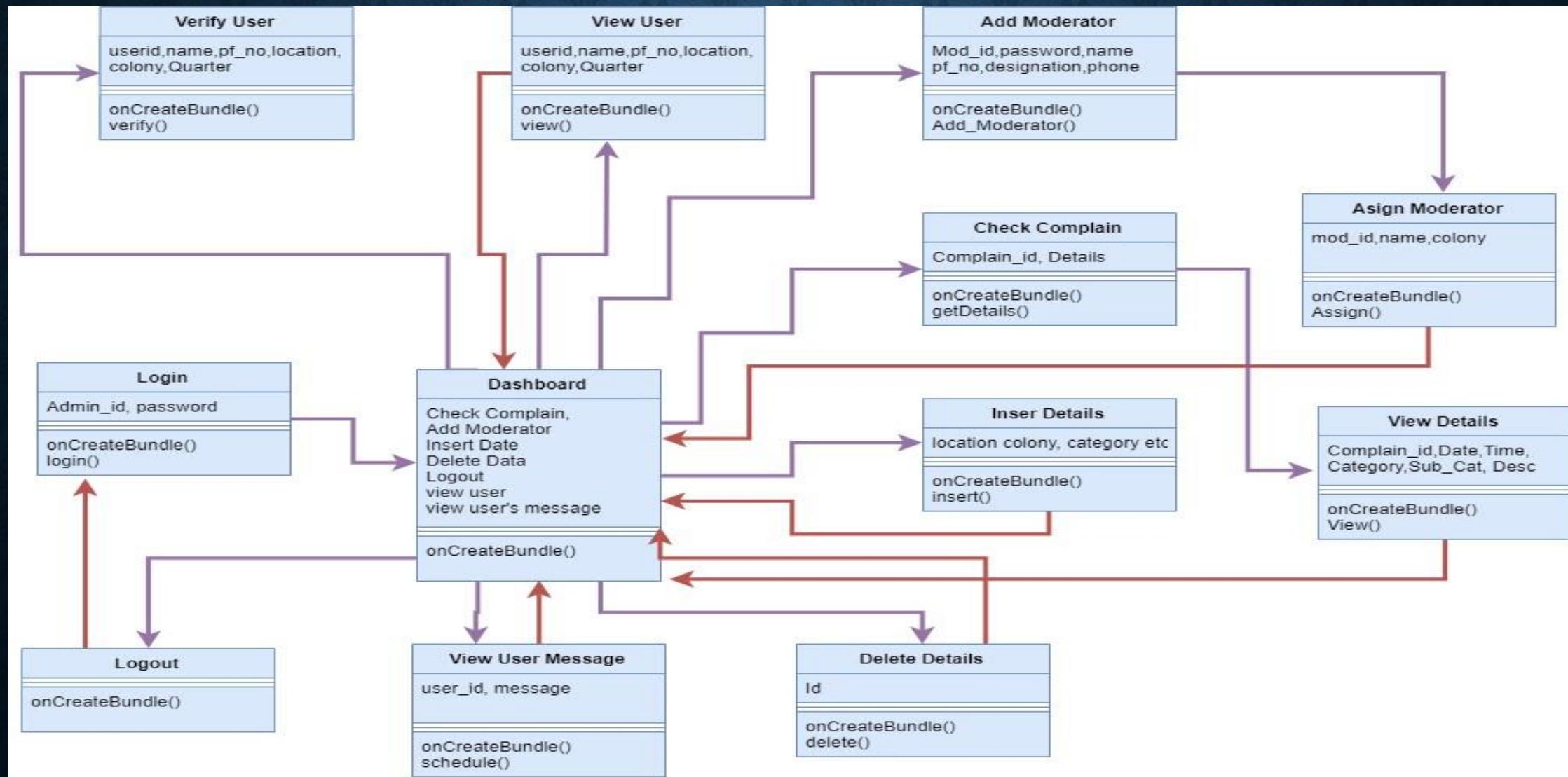
4.4 CLASS DIAGRAM FOR USER



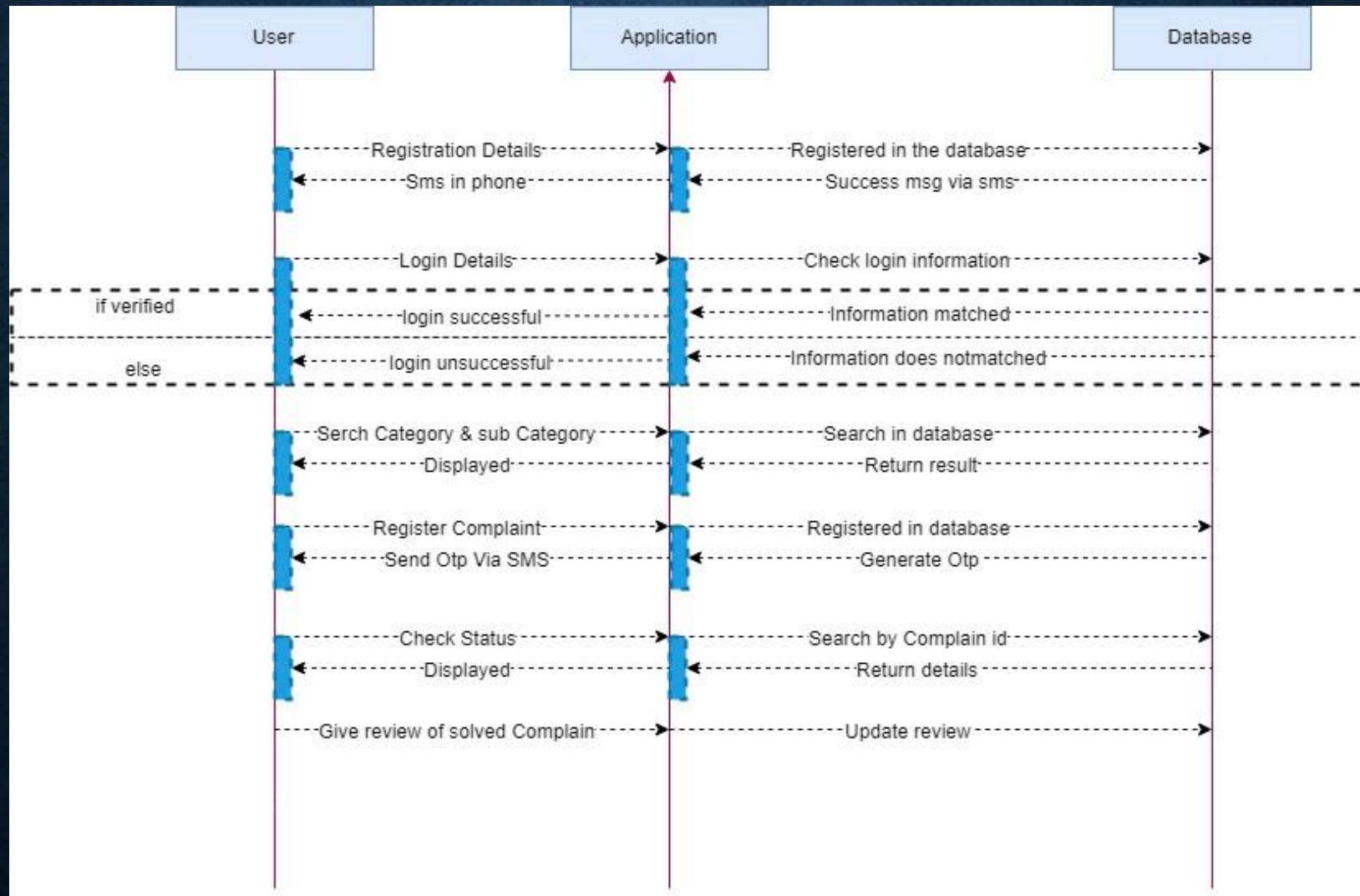
4.5 CLASS DIAGRAM FOR MODERATOR



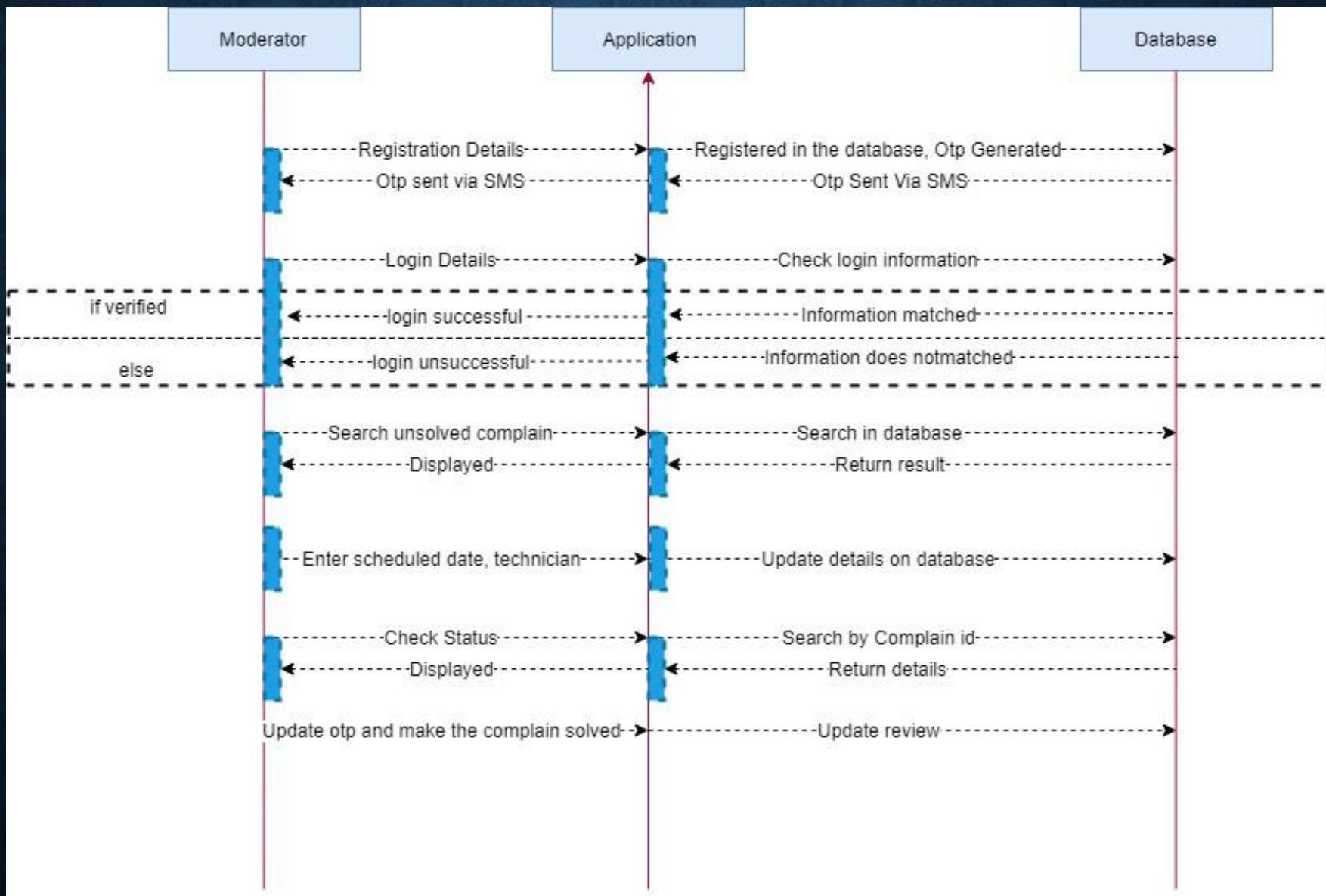
4.6 CLASS DIAGRAM FOR ADMIN



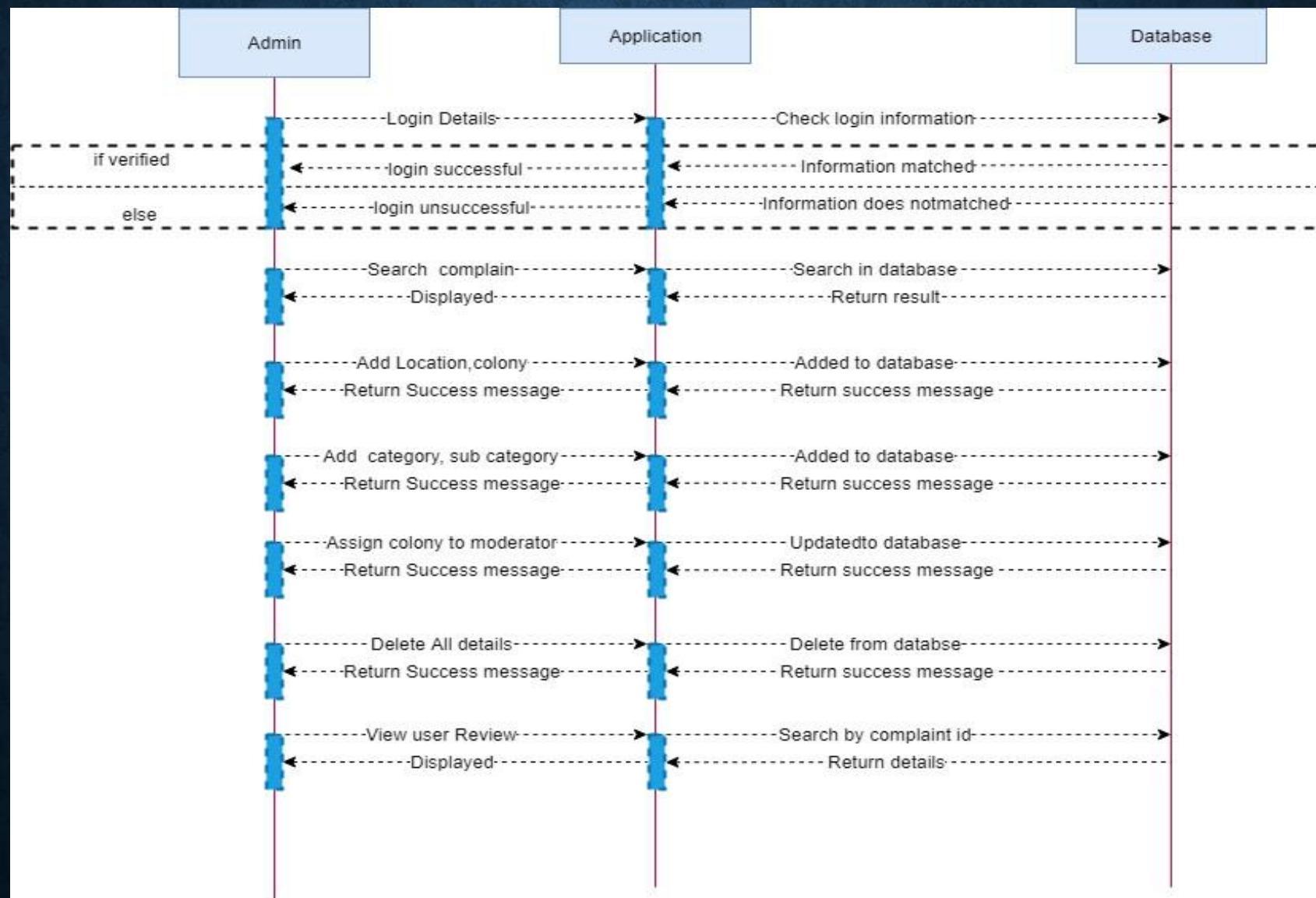
4.7 SEQUENCE DIAGRAM FOR USER



4.8 SEQUENCE DIAGRAM FOR MODERATOR



4.9 SEQUENCE DIAGRAM FOR ADMIN



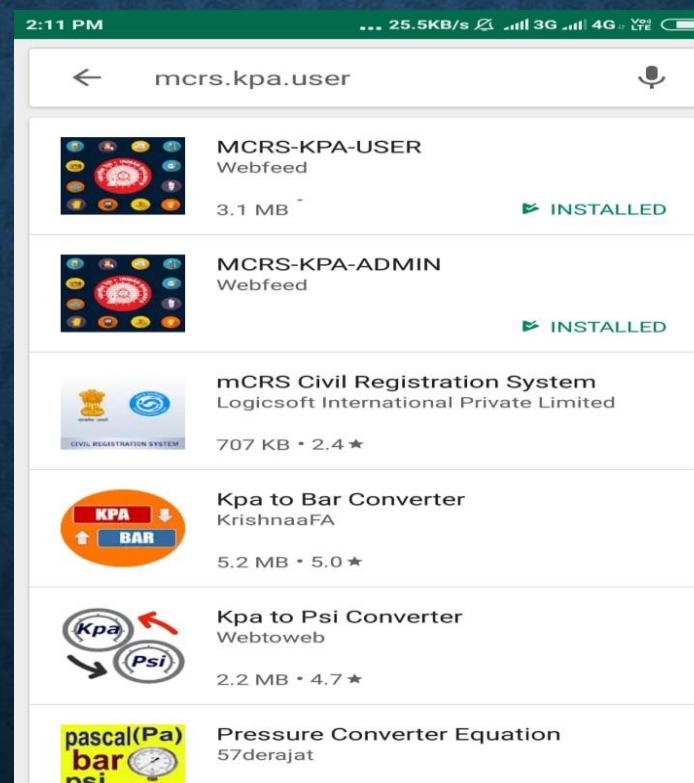
5. FUNCTIONAL COMPONENT

The various functional components used are:

Functional component 1:	User Module
Functional component 2:	Moderator Module
Functional component 3:	Admin Module

5.1 USER APPLICATION

- 1) User have to download the app from google play store.



2) After download the application user have to registered in the application with location, colony, quarter and other mandatory details

5:14 PM ... 27.6KB/s 3G 4G 3G LTE

5:15 PM ... 93.8KB/s 3G 4G 3G LTE

5:15 PM ... 45.0KB/s 3G 4G 3G LTE

5:15 PM ... 91.4KB/s 3G 4G 3G LTE

5:15 PM ... 15.9KB/s 3G 4G 3G LTE

Please Select Your Unique Id

Select Location-0

Kanchrapara-1

Halisahar-2

>Password

Register

Select Colony-0

Officers Colony-1

Ambagan Colony-2

KPA Station Colony-3

Foreman Colony-4

Hospital Colony-5

Babu Block-6

New Colony-7

Alsebazar Colony-8

Select Colony Type:0

Type-I:1

Type-II:2

Type-III:3

Type-IV:4

Type-V:5

Type-V Special:6

Select Quarter-0

B/116

B/118/TF

B/118/GF

B/120

B/129/TF

B/129/GF

B/631/TF

B/631/GF

Please Select Your Unique Id

Kanch.. Officer.. Type.. B/116

115B/116

Enter Your Name

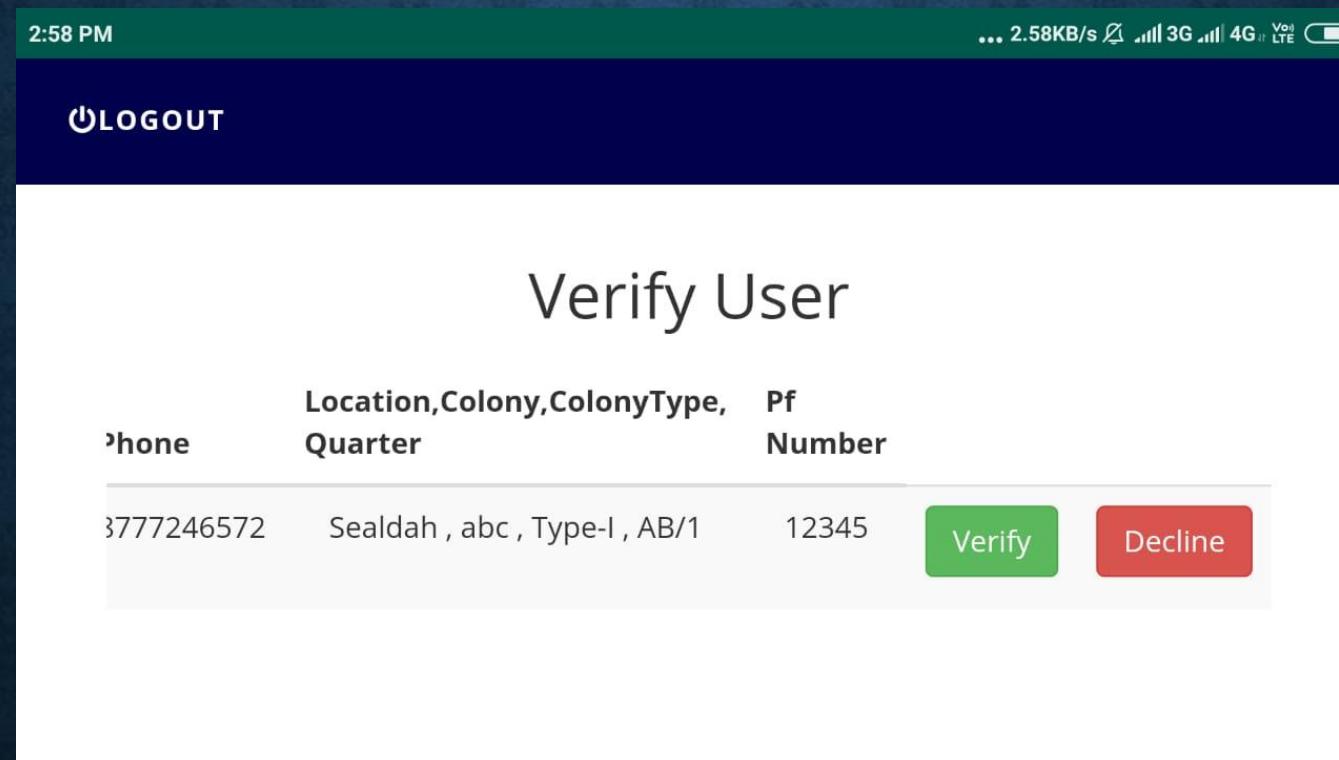
Enter Your Phone

Enter Your PF NUMBER

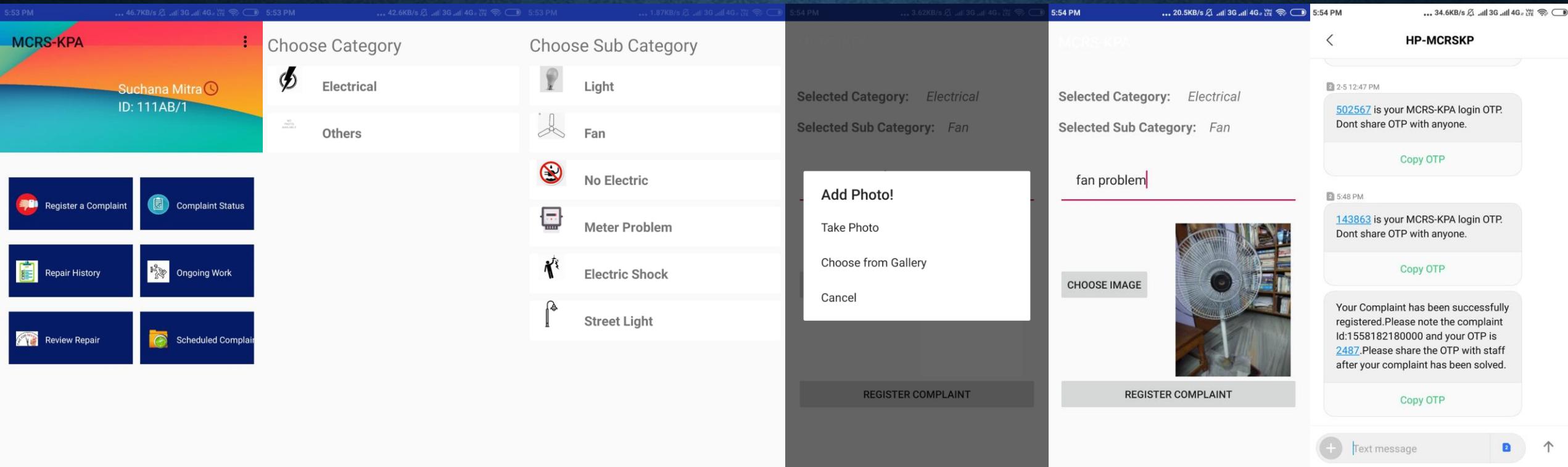
Password

Register

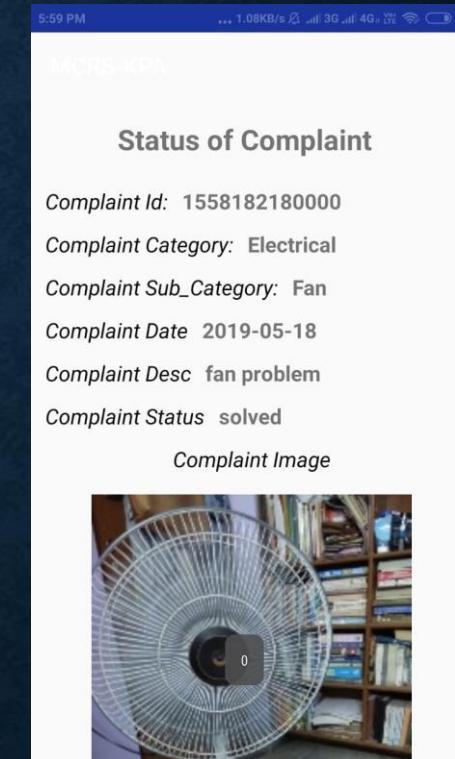
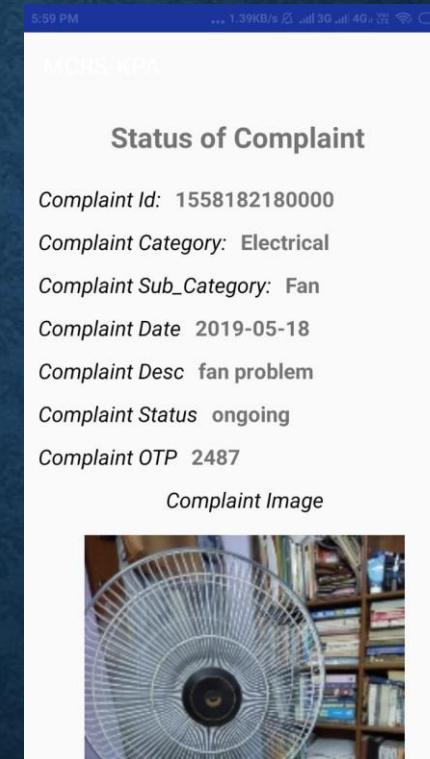
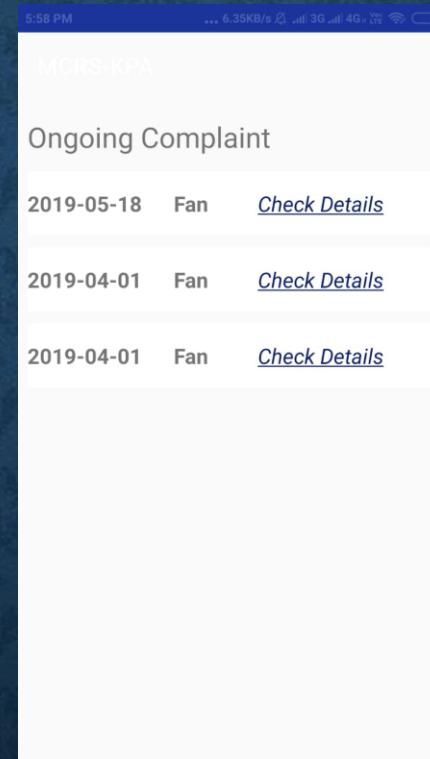
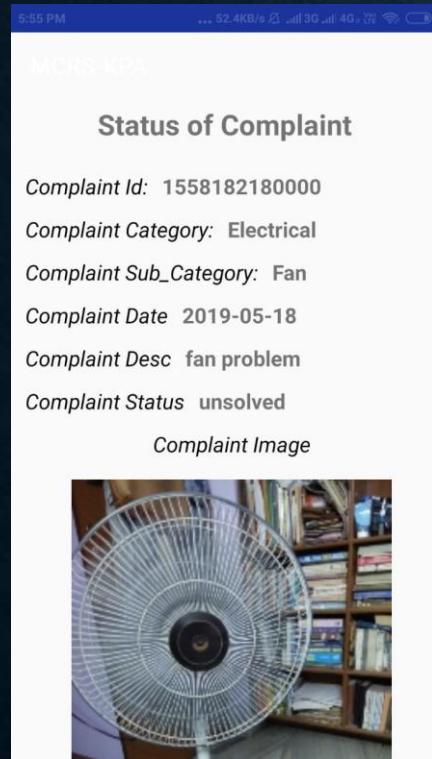
3) Admin have to verify the account. Other wise user can not proceed further. If all the details does not match admin can decline the account as well.



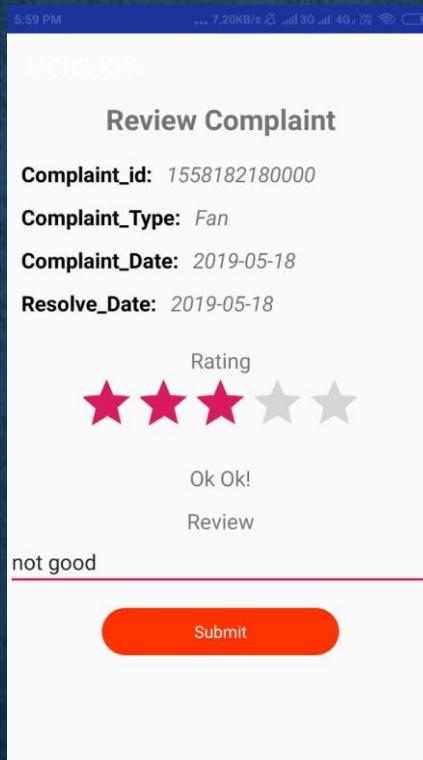
3) After Registration User can proceed further with login credentials. From user dashboard he/she can register a complaint by choosing category and sub category. He/she can add complaint image for better understanding of the staff.



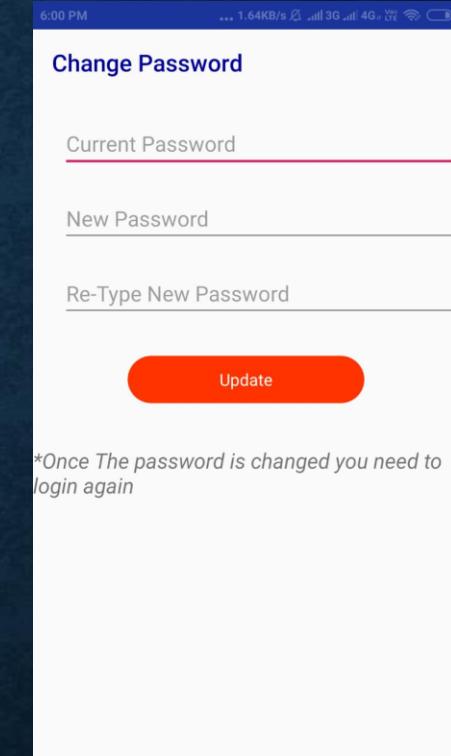
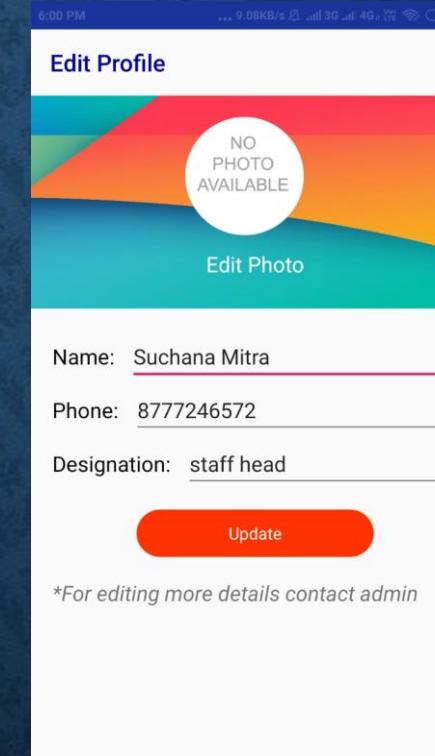
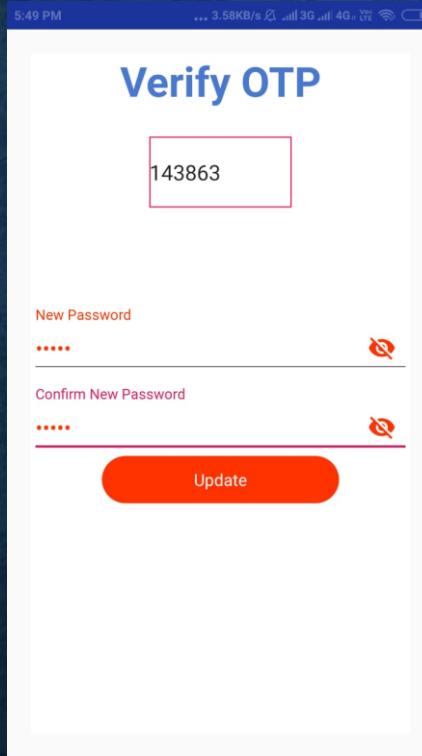
4) After successfully register a complaint user can check status of that complaint. And other details like when it is scheduled, which technician is going to attend, schedule time etc.



5) After a complaint was solved user can rate and review the complain.

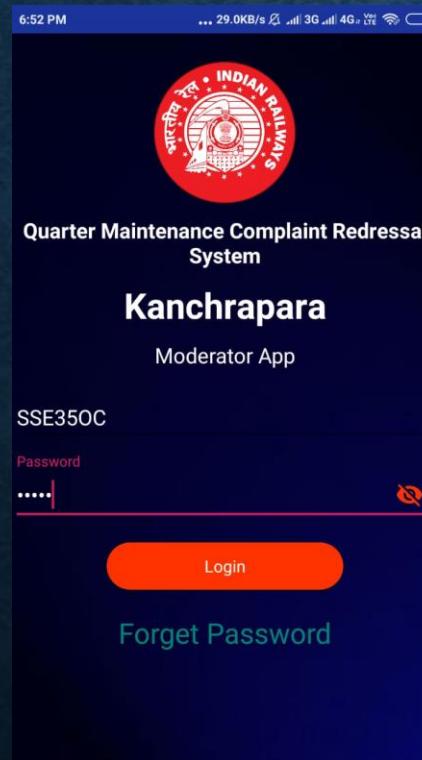


6)User can perform other operations like reset password if forgotten, change password, edit profile etc.

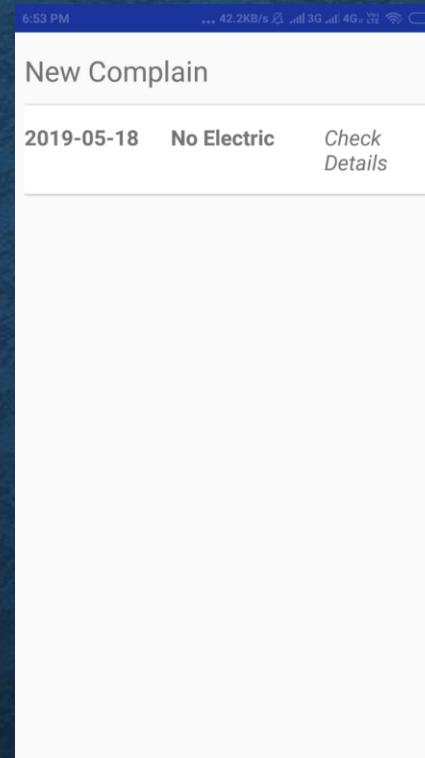


5.2 MODERATOR APPLICATION

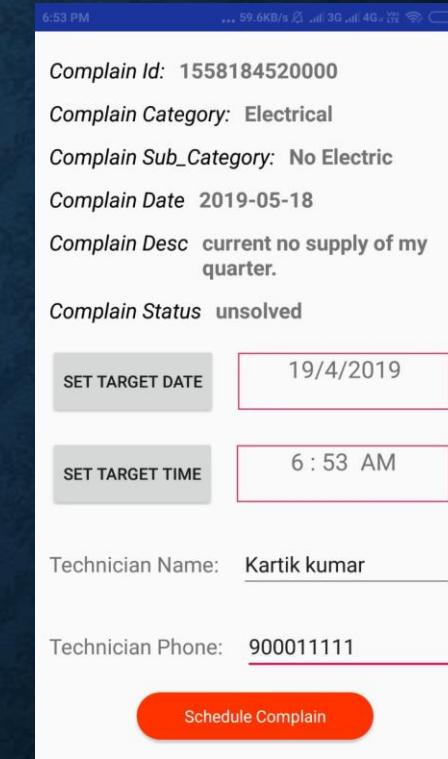
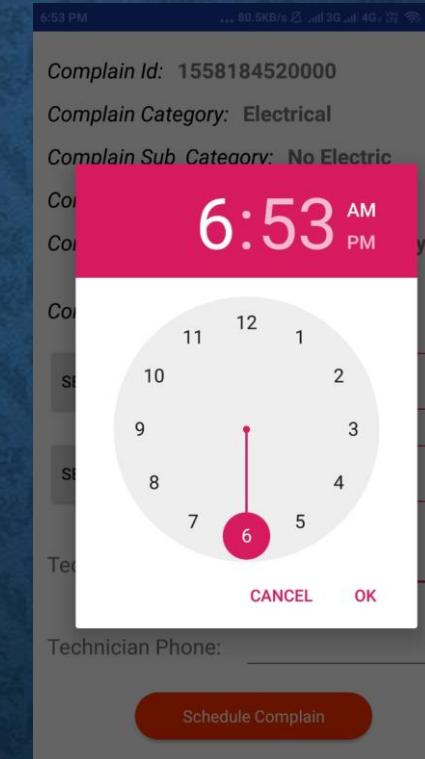
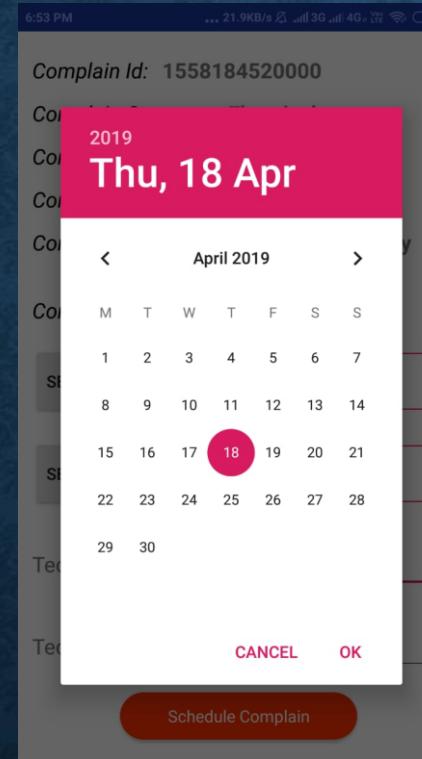
- 1) Moderator have to login with valid credential provided by Admin. And after successful logging he is moved to moderator dashboard.



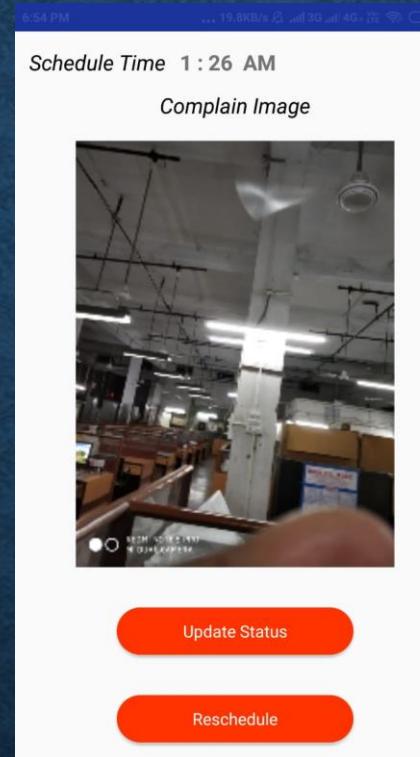
2) Moderator can check unsolved complaint under new complaint section.



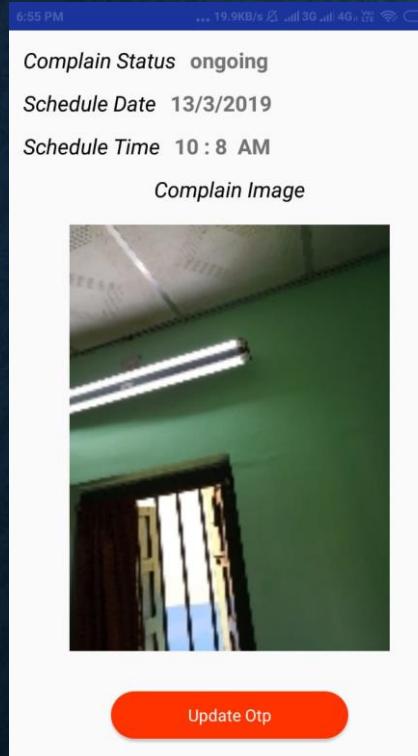
3) Moderator can select date time and enter technician details to schedule a complaint.



4) Once a complaint is scheduled moderator can reschedule the complain if necessary. Or update the status to “**ONGOING**”



5) For ongoing complain moderator have to update the OTP to close it. And check history of complaint

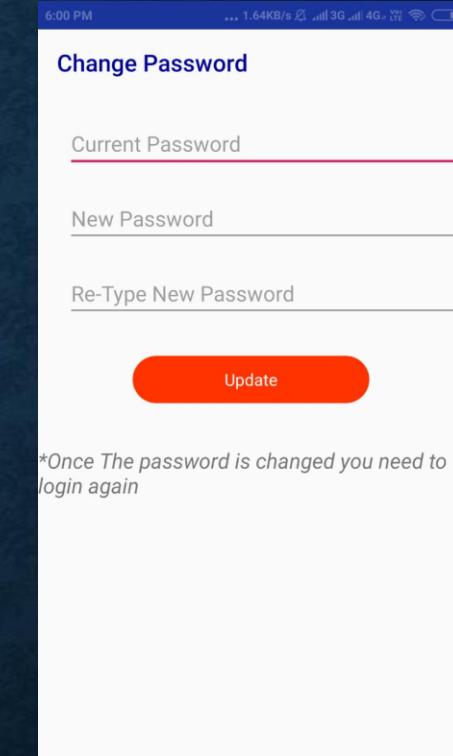
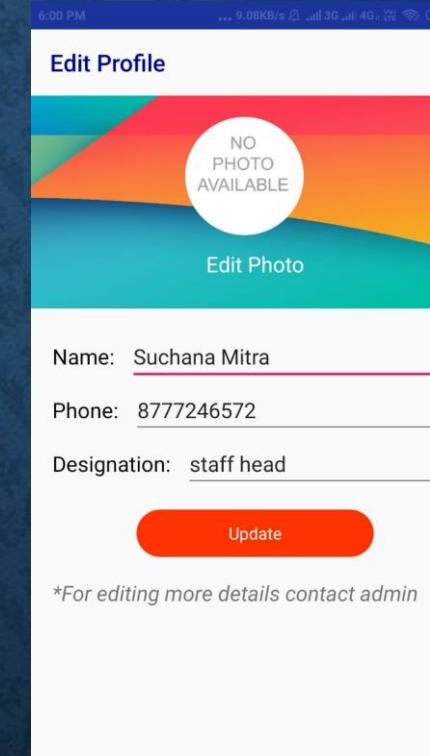
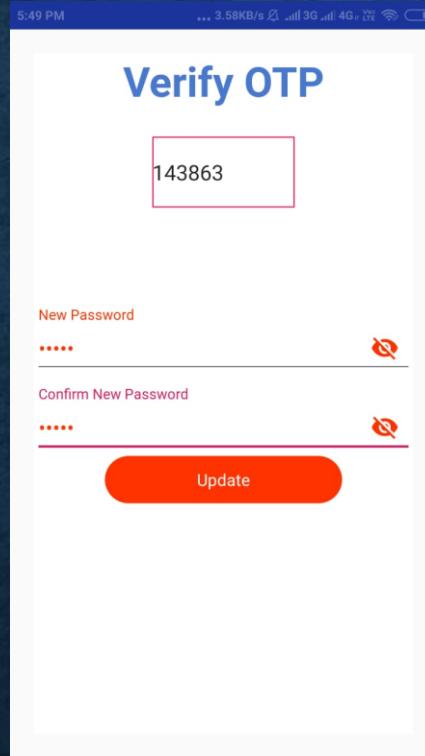


Verify Your OTP

Submit

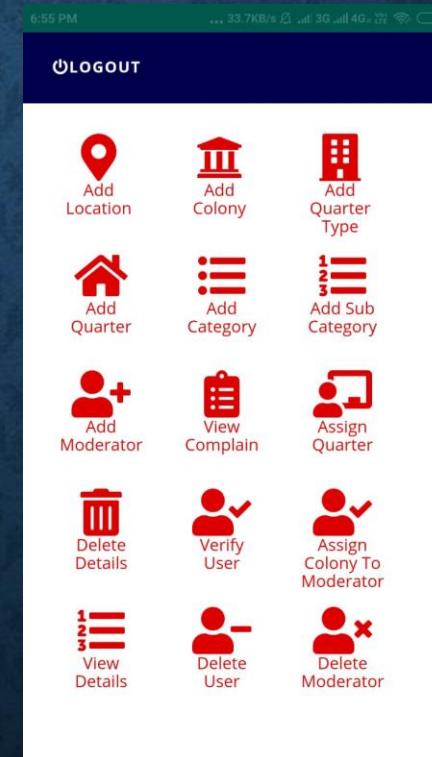
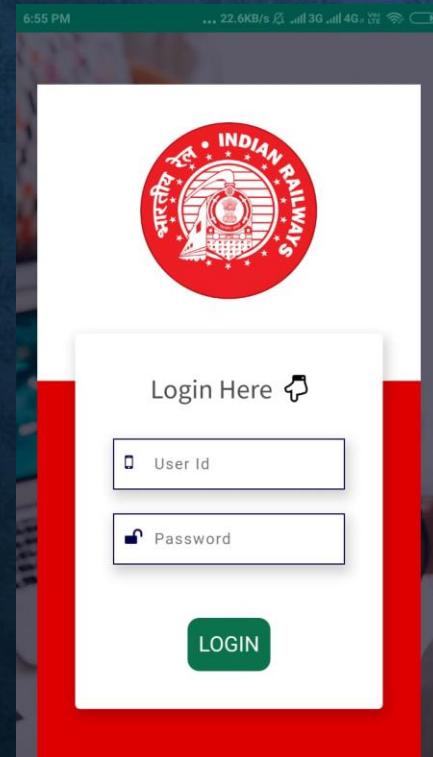
Repair History		
2019-04-23	Light	Check Details
2019-04-23	Fan	Check Details
2019-04-27	Fan	Check Details
2019-04-27	Light	Check Details
2019-05-03	Light	Check Details
2019-05-03	Fan	Check Details
2019-05-07	Fan	Check Details
2019-05-08	Light	Check Details
2019-05-14	Fan	Check Details

6) Moderator can perform other operations like reset password if forgotten, change password, edit profile etc.

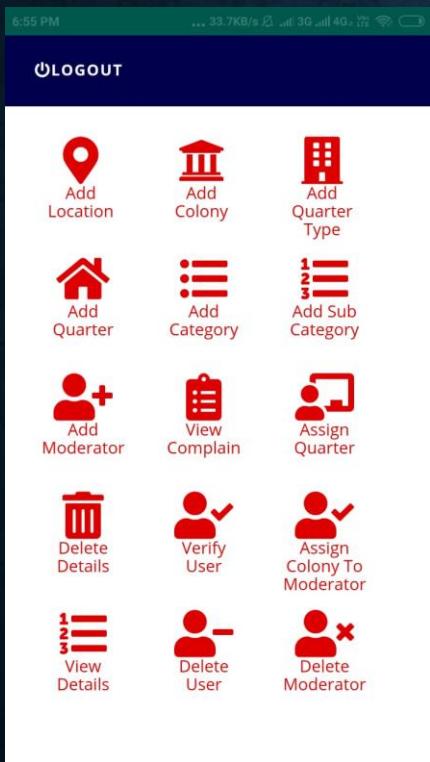


5.3 ADMIN APPLICATION

- 1) Admin have to login with valid credential. And after successful logging he is moved to admin dashboard.



2) Admin can add all the details.



The screenshot shows the 'Add Location' form with a dark blue header containing 'LOGOUT'. The form fields are:

- Location Code:
- Location Name:
-

The screenshot shows the 'Add Quarter' form with a dark blue header containing 'LOGOUT'. The form fields are:

- Select location:
- Select Colony:
- Select Quarter Type:
- Quarter:
-
-

The screenshot shows the 'Add Sub Category' form with a dark blue header containing 'LOGOUT'. The form fields are:

- Select Category:
- SubCategory Name:
- No file chosen
-

3) Admin can add or delete moderator.

6:58 PM ... 13.6KB/s 3G 4G VoLTE

LOGOUT

Add Moderator

Select location:

Moderator Id:

Moderator Password:

Moderator Name:

Phone Number:

Pf Number:

Designation:

6:58 PM ... 8.75KB/s 3G 4G VoLTE

LOGOUT

List of Moderator

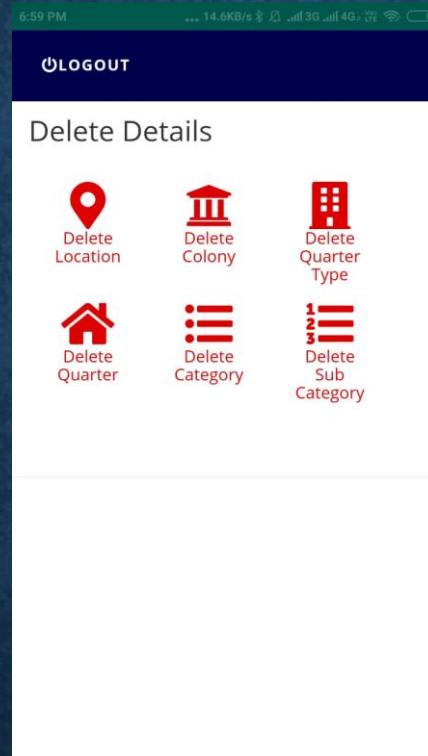
id	moderator_location	moderator_designation	photo	
220	Kanchrapara	SSE/35/DGP SUBSTATION		<button>Remove</button>
887	Kanchrapara	SSE/35/FC/SUBSTATION		<button>Remove</button>

4) Admin can view all details about complaint.

Complain Id	Category	Sub Category	Phone	Status	Details
1553767920000	Electricity	Light		solved	<button>Details</button>
1554101460000	Electricity	Fan		ongoing	<button>Details</button>
1554101520000	Electricity	Fan		ongoing	<button>Details</button>
1554125040000	Electricity	Light		unsolved	<button>Details</button>

6:57 PM	... 12.5KB/s	3G	4G	Voice	Wi-Fi	Logout
Location- Sealdah						
Colony- abc						
Quarter- AB/1						
OTP- 2519						
Status- solved						
Target Date- 4/3/2019						
Target Time- 4 : 50 PM						
moderator_id- 9163425447						
Technician Name- Suchana Mitra						
Technician Phone- 9163425447						
User Rating- 3.0						
User Review- good						

5) Admin can delete all details.



6) API INTEGRATION

Core PHP APIs are used to connect database with user interface.
And the following apis are decoded using android volley library to generate result in the app.

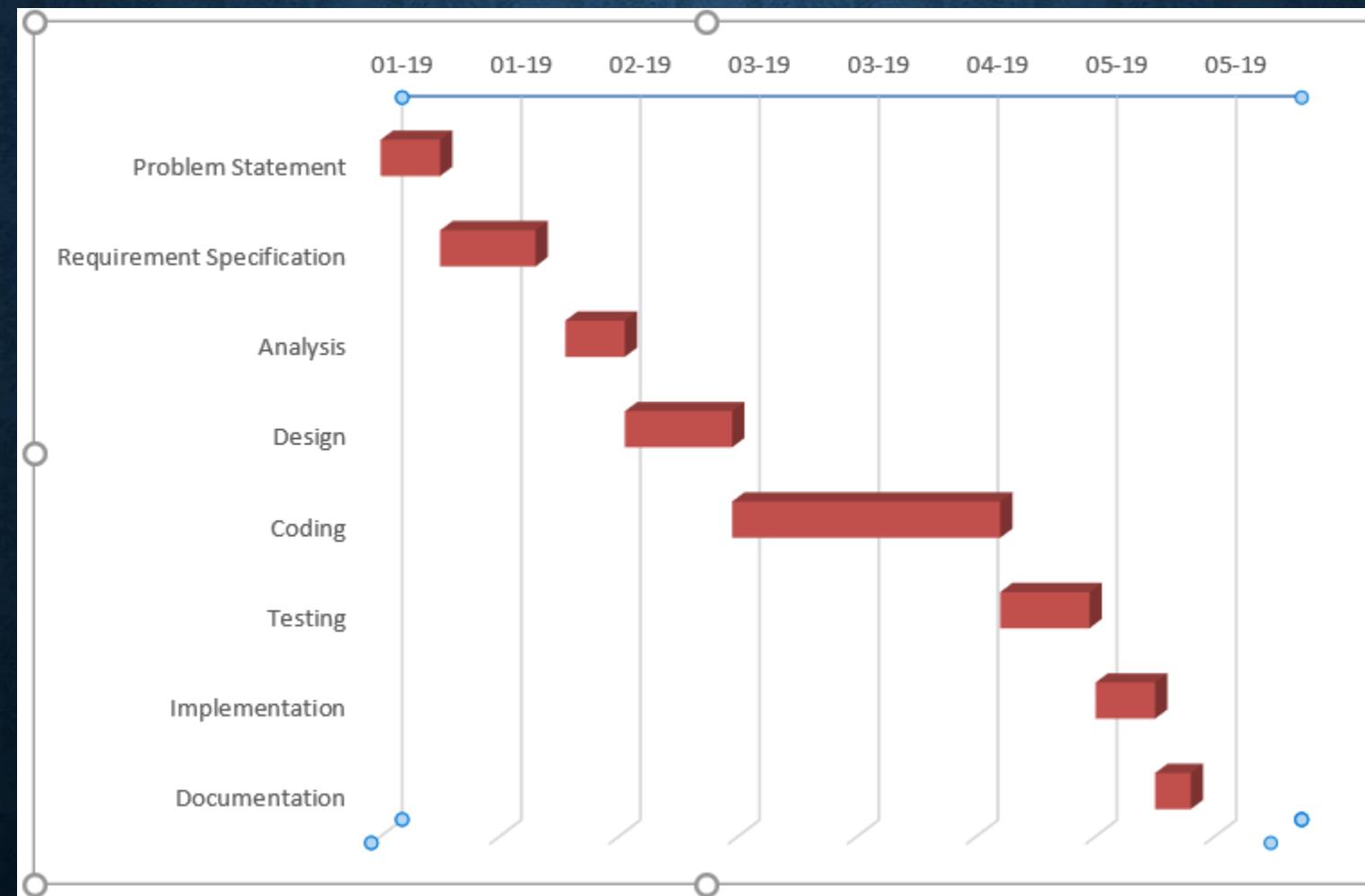
7) TESTING

We have implemented black box manual testing on this application

Requirement	Test Case Name	Test Case Description	Test Step Name	Test Step Description	Expected Result	Actual Result	severity	Pri ority
User is able to register and launch complain success fully	TC001	To verify that User is able to register successfully	1	User open the app.	User should get the option to Login/Register	User get the option to Login/Register	High	1
			2	User enter all the mandatory details.	User should be able to enter all the mandatory details in Register form.	User is able to enter all the mandatory details in Register form.	High	2
			3	User click on the Register Button.	User should be able to register successfully and navigate to Login tab.	User should be able to register successfully and navigate to Login tab.	High	2

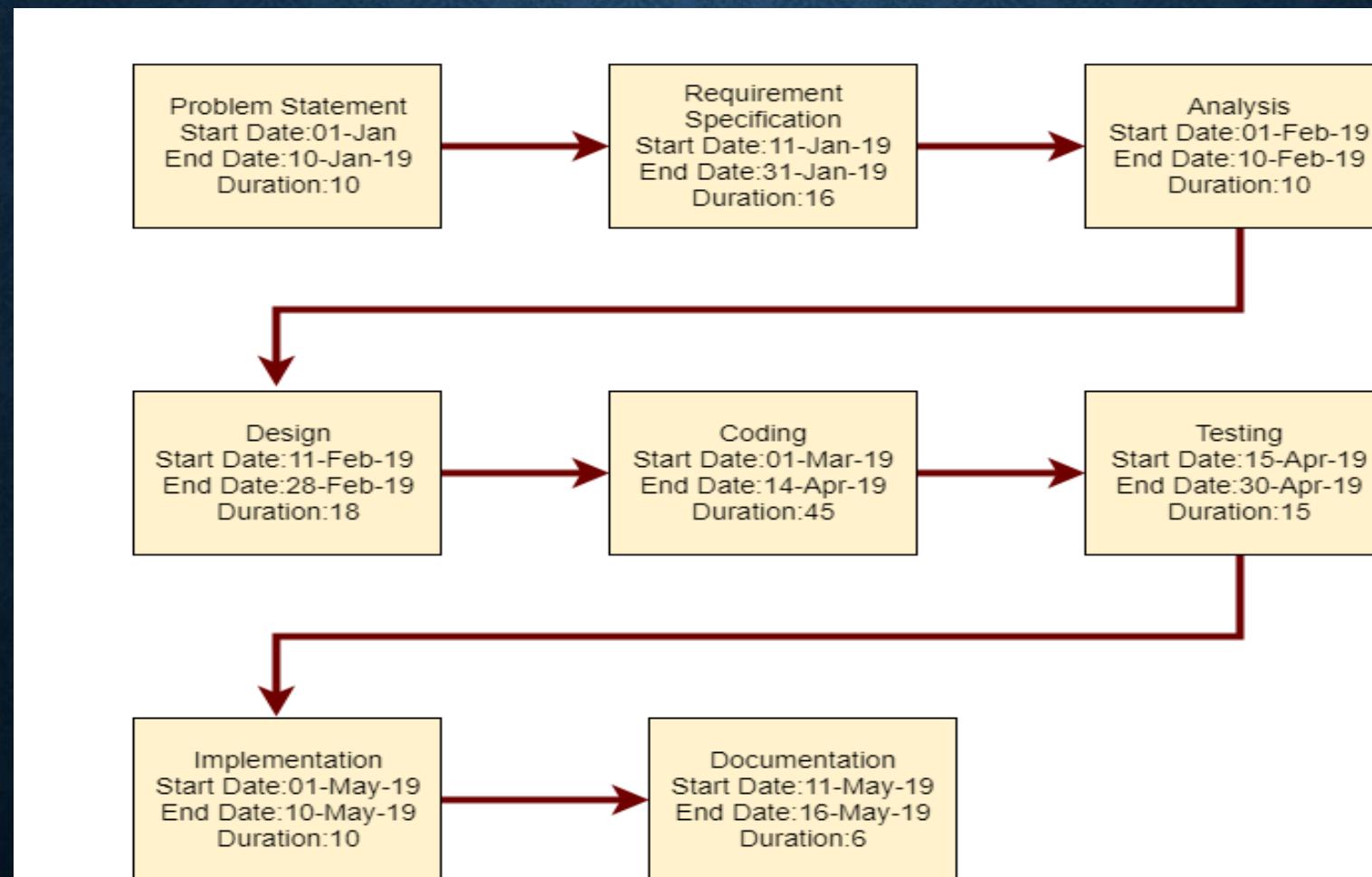
8) GANTT CHART

This is the Gantt Chart of this project. As we can see the project run from January to May



9) PERT CHART

This is the Pert Chart of this project.



10) CONCLUSION AND FUTURE SCOPE

- So the main conclusion of the project is to build a simplified and hassled free application for quarter holders.
- In future admin can view graphical representation of the system generated reports.
- User and moderator can change the language of the app.
- Along with electrical category other complain category are going to introduced.

ACKNOWLEDGEMENT

The satisfaction that accompanies the successful completion of any task would be incomplete without the mention of people whose ceaseless cooperation made it possible, whose constant guidance and encouragement crowned all our efforts with success.

We are grateful to our project guide Dr. Indrajit Bhattacharya for his guidance, inspiration and constructive suggestions that helped me in the successful completion of this project.

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THANK YOU