CHAPTER 1

INTRODUCTION

1.1) OBJECTIVE

Normally we people actually have a lot of complaints regarding our surroundings, but we are actually unaware of whom to inform to resolve those problems. Urban sanitization is the Key Problem in the Metropolitan areas where proper maintenance is not being held by the authorities. The main problem exists there is lack of communication between public and authorities.

So this project main objective is to make a platform to make easy relation between the public to the authority by their complaints against the maintenance of urban level sanitization works that to be held on so that the cities are not getting their mark of maintenance to get rid of.

We ourselves who are holding this project are the victims to those negligence of public and authority, so we are here with a platform which is much needed in maintaining our cities in a good way and so call as smart way.

1.2) EXISTING SYSTEM

Online complaint systems are not so special because now everywhere we can see a lot of services going on through online. But here comes the precision of those complaint systems. Existing systems have no proper feedback systems and no complaining over calls, videos etc. End of the day the work whether completed or not is not yet known and no proper mentoring takes place without feedback system.

1.2.1) DISADVANTAGES OF EXISTING SYSTEM

***** No proper feedback system available.

* No good communication relationship between common people to the authorities.

* No dedicated site for only sanitary status of a city.

1.3) PROPOSED SYSTEM

The proposed system is a web based application. It provides the modern approach and features that a user requires for the better interaction. It is the centralized site only for the sanitary department and to make this happen successfully every toilet is marked with unique id's all over the city.

1.3.1) ADVANTAGES OF PROPOSED SYSTEM

* To and Fro feedback system available.

* Complaining through

  . Text messages

  . Images/ videos

  . Gmail

* Modern user interaction.

1.4) MODULE DESCRIPTION

There are 2 modules in this Project. They are

1) USER

2) ADMINISTRATOR

1.4.1) USER

The user has to use a valid username and password to use the website features. He can raise complaint through text message, voice call, video/ image. He can track the complainant status.

1.4.2) ADMINISTRATOR

Administrator gets all privileges to control the site with the user name and password. An admin can view the valid complaints, takes initiative to the actions to be taken, tracking the user requirements are all his necessary works.

The major tasks carries out by the administrator are:

- login details

- tracking fraud registration

- monitoring complaint status

- Updating available resources in the website

- Account updation

- Maintaining data security

- feedback details

CHAPTER 2

LITERATURE SURVEY

The main purpose of literature review is to convey to the readers about the work already done & the knowledge and ideas that have been already established on a particular topic of research.

Sanitization is one of the basic determinant of quality of life. So, we wish for Good Sanitary Maintenance where ever we live Every day we travel to many places due to some reasons that may be office work or our personal work so in our journey we use public toilets at metropolis areas. In our study people facing many problems in urban sanitary. Many people in urban areas access to improved sanitization arrangements and there is no proper communication between citizens and higher authorities.

Every citizen wants to report about the problem but lack of proper knowledge they failed to raise a complaint. Even they report through some calls it is not enough to know the status of the complaint. There is no proper platform to register various complaints to communicate with the authorities to solve these sanitary issues.

Even government is trying to resolve these issues but they are failing in making people get aware about the proper complaint system. These problems are everywhere now. So, we are making this project so that it can lead to a way to resolve these issues.

CHAPTER 3

PROCESS/METHODOLOGY OF PROJECT

3.1) PURPOSE

Every citizen wants to report about the problem but lack of proper knowledge they failed to raise a complaint, it is require to have such platform where public will be aware of it and feel responsible to raise complaint.

3.2) RESEARCH OBJECTIVE

The main objective of this project is to develop an web based complaint and maintenance system for urban sanitary works by the citizen complaints and to take them to higher authorities eye, so the work will be done accordingly.

A to and Fro feedback system is very much needed to track the complaint by the citizen and even authority can take valuable feedback or suggestion from the citizens.

3.3) PROJECT DESIGN

3.3.1) REQUIREMENT OF DATA

The idea behind the design of the project came up with studying of collection of data from various sources. The collected data is categorized as :

3.3.1.1) PRIMARY DATA

Primary data is collected from conducting surveys directly by interacting with general public, by taking the following points into consideration.

- ✓ Public requirements.
- ✓ Their level of satisfaction with the existing system.

3.3.1.2) SECONDARY DATA

Secondary data is gathered from the available sources like websites, newspapers etc

3.3.2) SAMPLE FOR TESTING

For testing our project, we implemented the concept of assigning unique toilet id's for the respective toilets. Here, we took 5 toilet id's as sample and some complaint types generally we have regarding sanitation.

These toilet id make easier to locate the toilet with in the city and it can have track of records for all the complaints registered on that complaint id.

Complaint type makes complaint description more relatable.

3.3.3) HYPOTHESIS OF THE STUDY

In this project study, we are finding some outcomes by predictions and assumptions. Our hypothesis are as follows:

- ✓ The feedback system makes citizen to use this platform more efficiently.
- ✓ It can be taken to a large scale if this platform successfully meets the satisfaction of the citizens with in a limited area of use.

CHAPTER 4

UML DIAGRAMS

A **UML diagram** is a **diagram** based on the **UML** (Unified Modeling Language) with the purpose of visually representing a system along with its main actors, roles, actions, artifacts or classes, in order to better understand, alter, maintain, or document information about the system.

4.1) USE CASE DIAGRAM

Use case diagrams are used to gather the requirements of a system including internal and external influences. These requirements are mostly design requirements. Hence, when a system is analyzed to gather its functionalities, use cases are prepared and actors are identified.

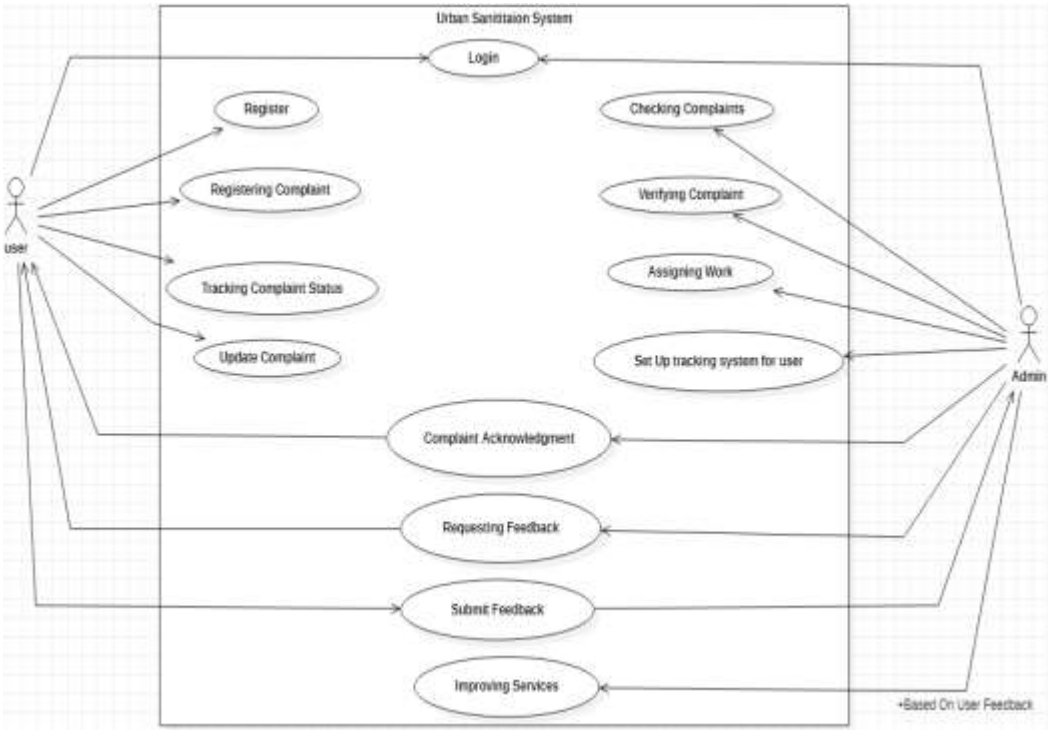

Fig: 4.1 Use Case Diagram

4.2) CLASS DIAGRAM

Class diagram describes the attributes and operations of a class and also the constraints imposed on the system.

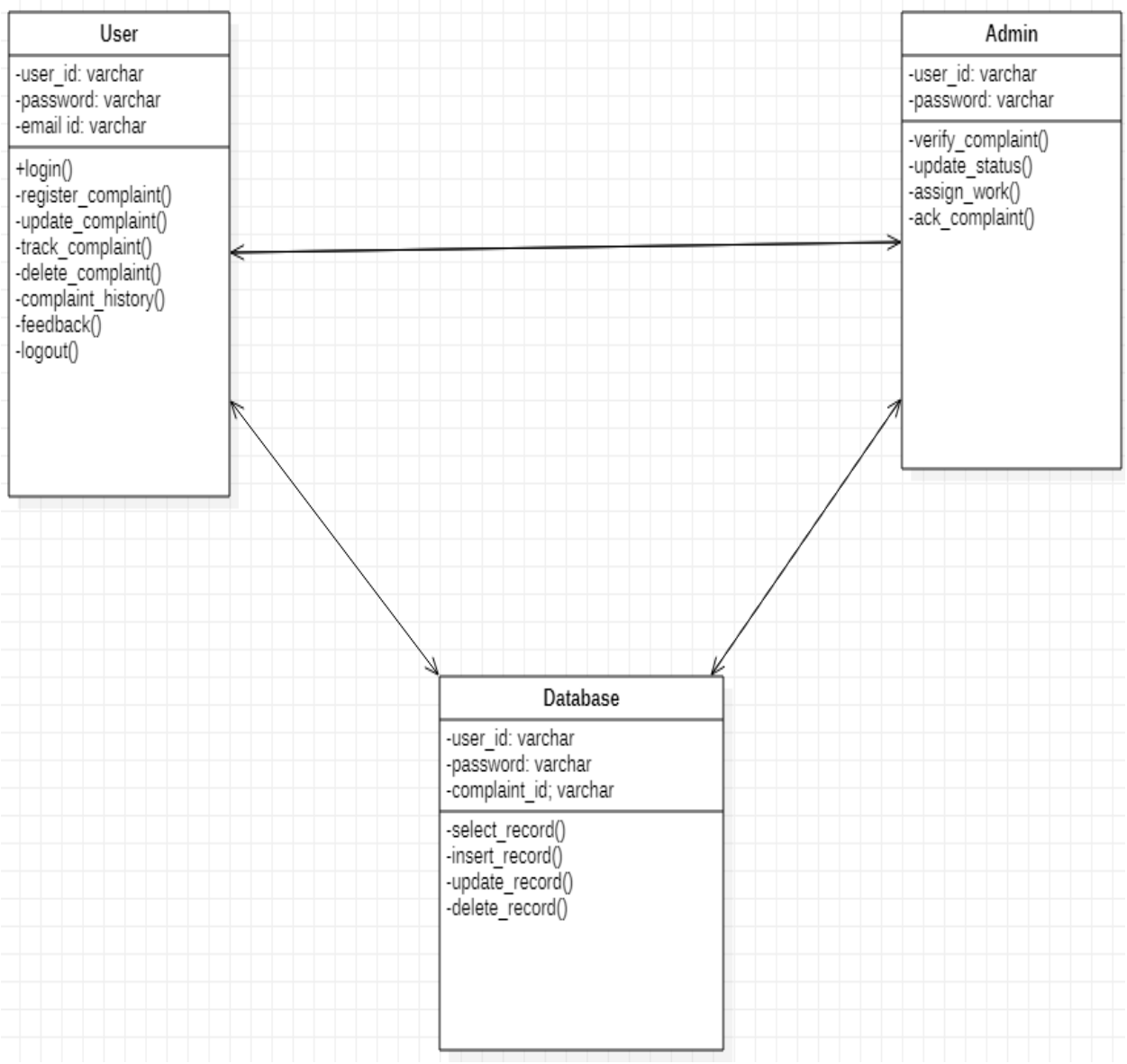

Fig: 4.2 Class Diagram

4.3) ACTIVITY DIAGRAM

Activity diagram is basically a flowchart to represent the flow from one activity to another activity.

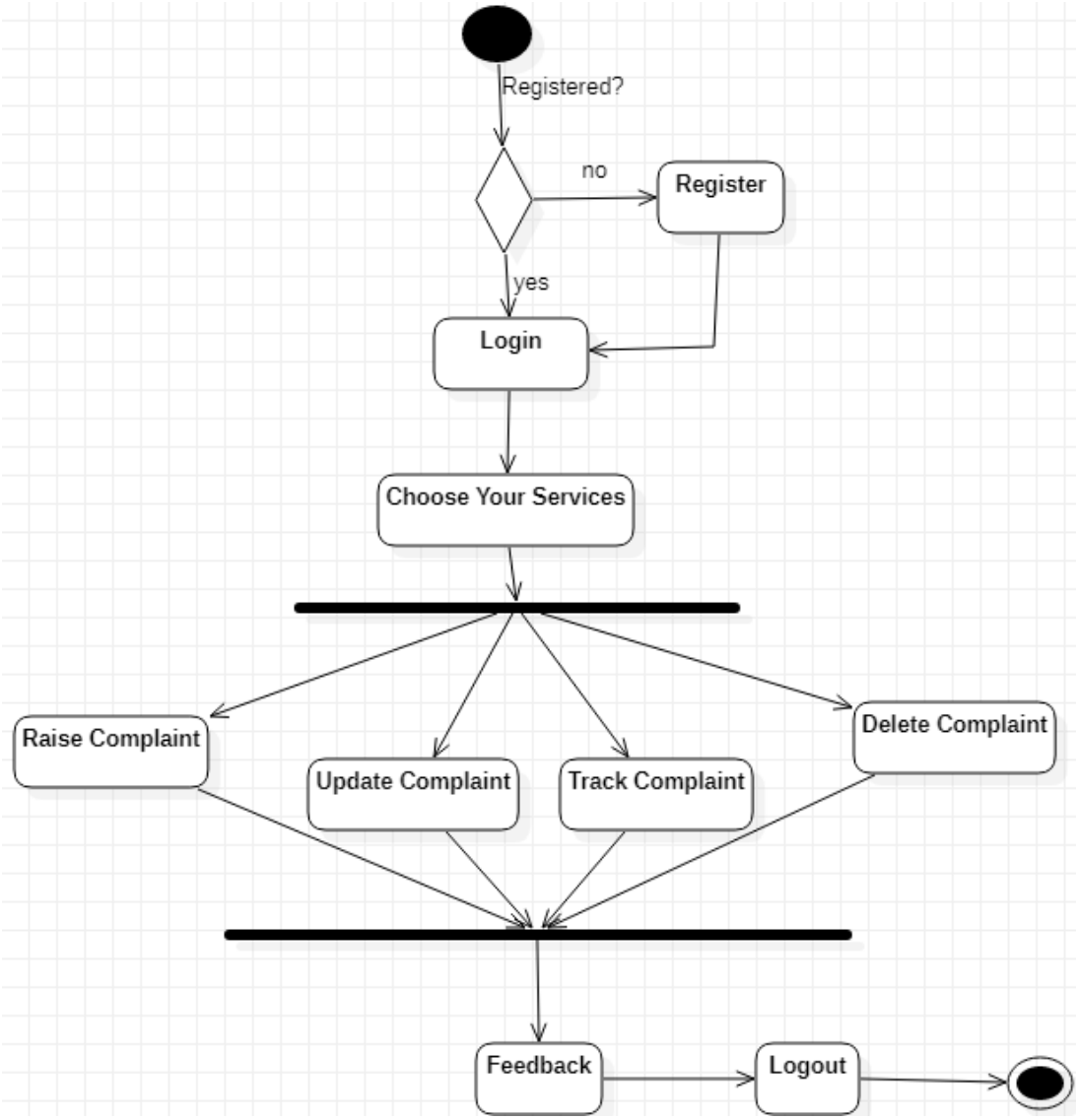

Fig 4.3 Activity Diagram

4.4) SEQUENCE DIAGRAM

Sequence **Diagram** is an interaction **diagram** that details how operations are carried out -- what messages are sent and when. Sequence **diagrams** are organized according to time.

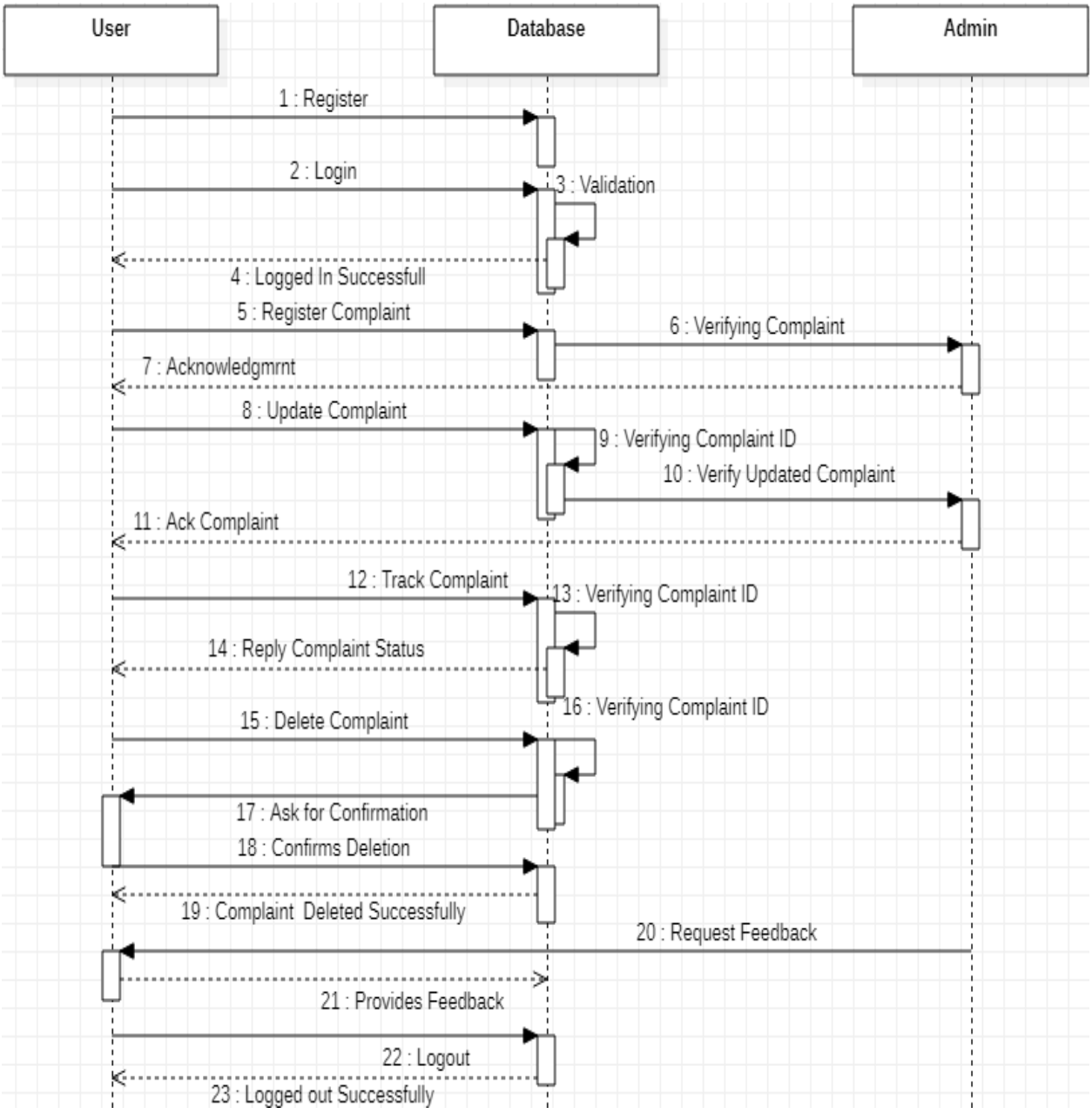

Fig 4.4 Sequence Diagram

4.5) COMMUNICATION DIAGRAM

Communication diagrams are used to show how objects interact to perform the behavior of a particular **use** case.

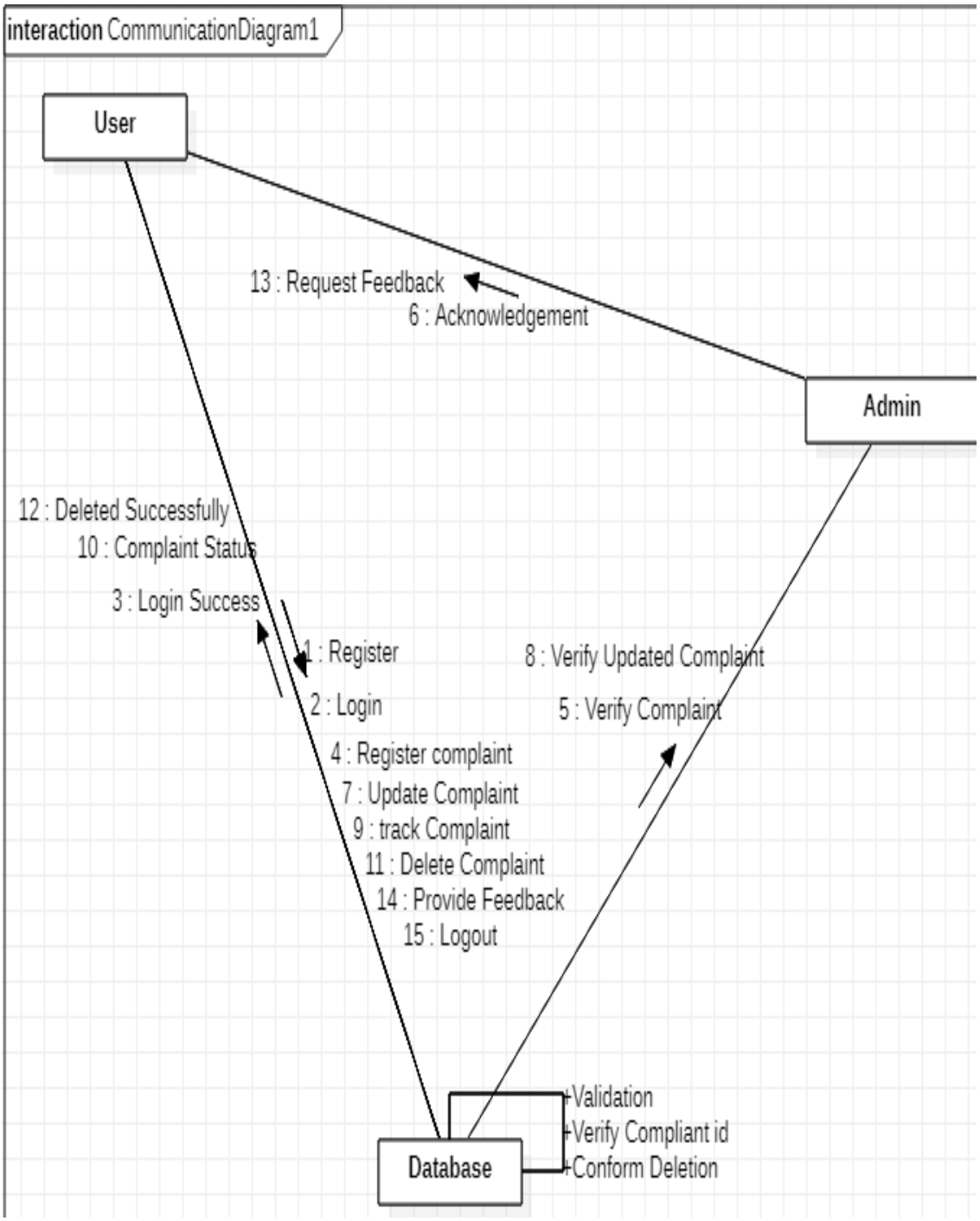

Fig 4.5 Communication Diagram

4.6) STATE CHART DIAGRAM

A **state diagram** shows the behavior of classes in response to external stimuli. Specifically a **state diagram** describes the behavior of a single object in response to a series of events in a system.

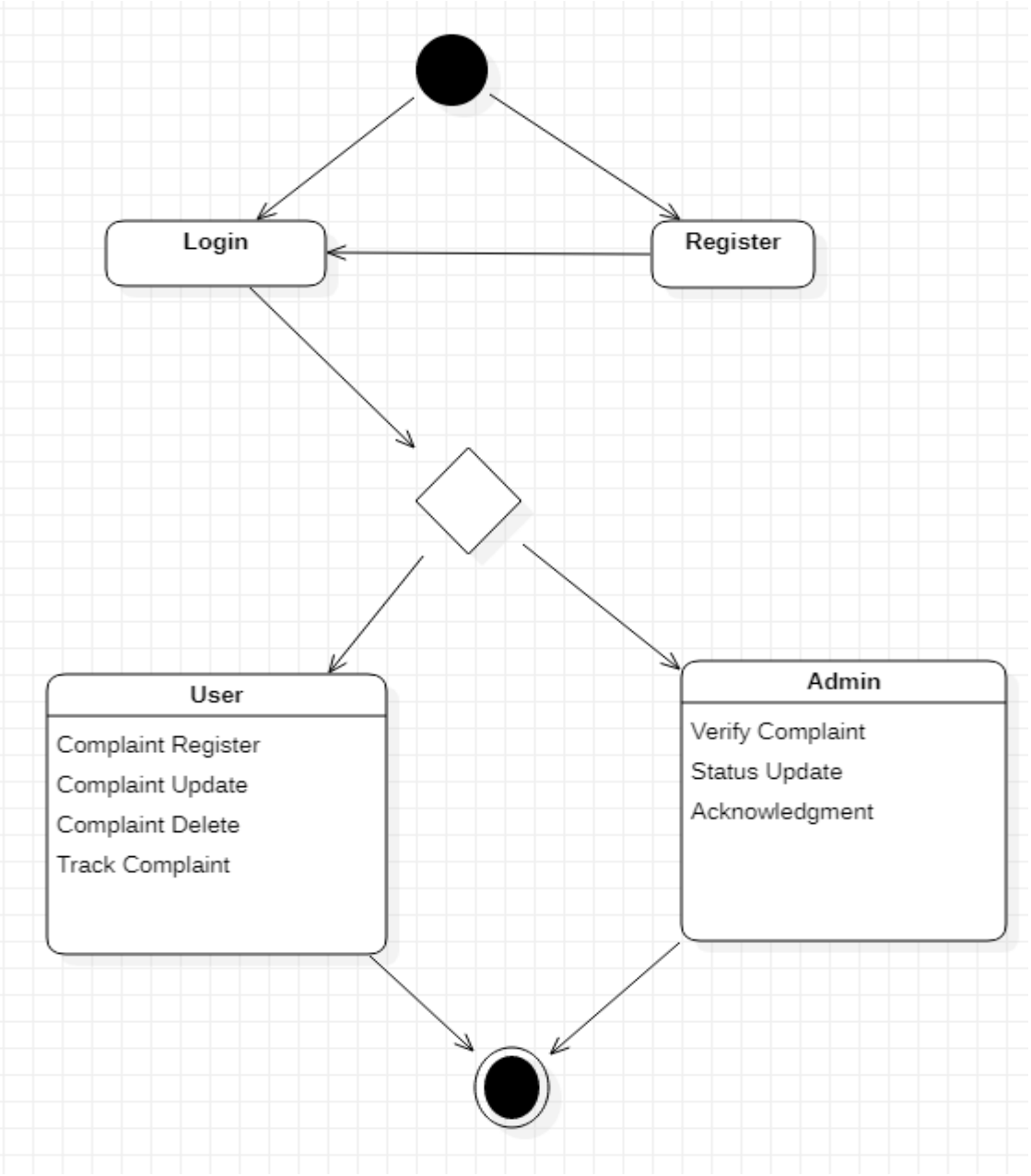

Fig 4.6 State Chart Diagram

4.7) COMPONENT DIAGRAM

A **component diagram** breaks down the actual system under development into various high levels of functionality.

The purpose of a **component diagram** is to show the relationship between different **components** in a system. the term "**component**" refers to a module of classes that represent independent systems or subsystems with the ability to interface with the rest of the system.

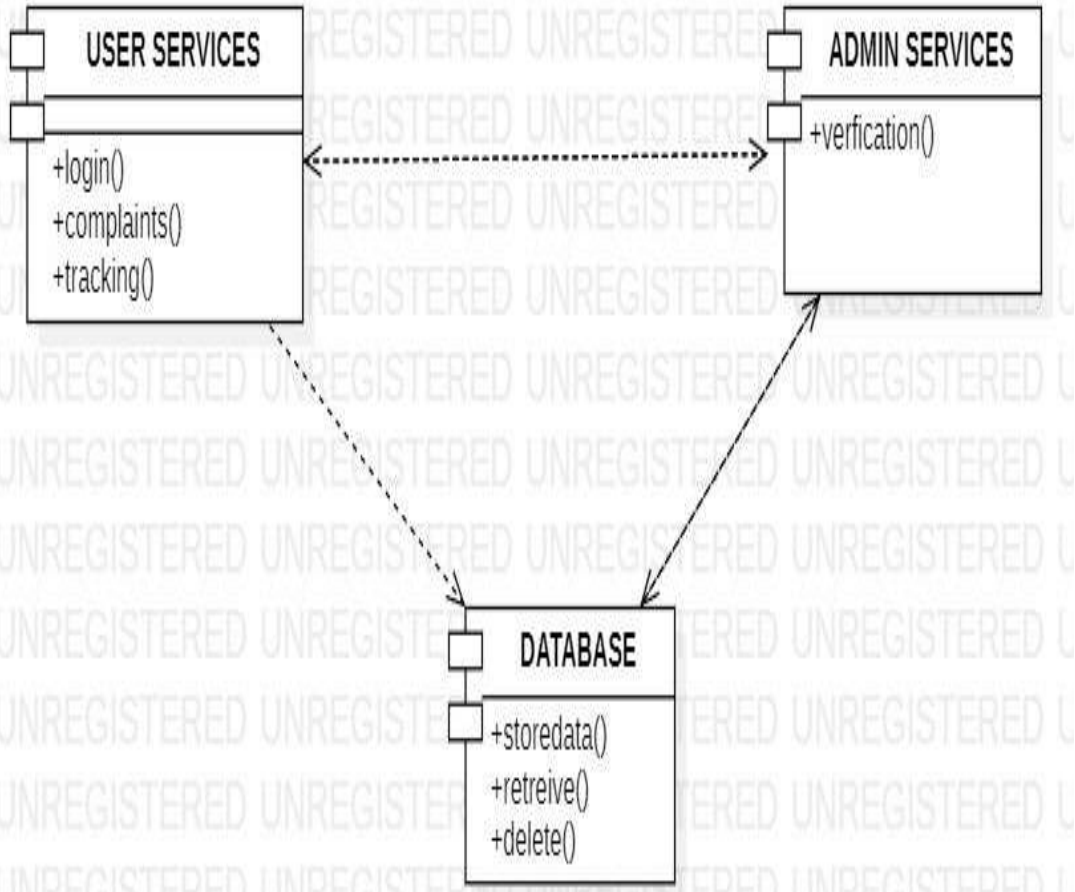

Fig 4.7 Component Diagram

4.8) DEPLOYMENT DIAGRAM

A **deployment diagram** is a UML **diagram** type that shows the execution architecture of a system, including nodes such as hardware or software execution environments, and the middleware connecting them. **Deployment diagrams** are typically used to visualize the physical hardware and software of a system

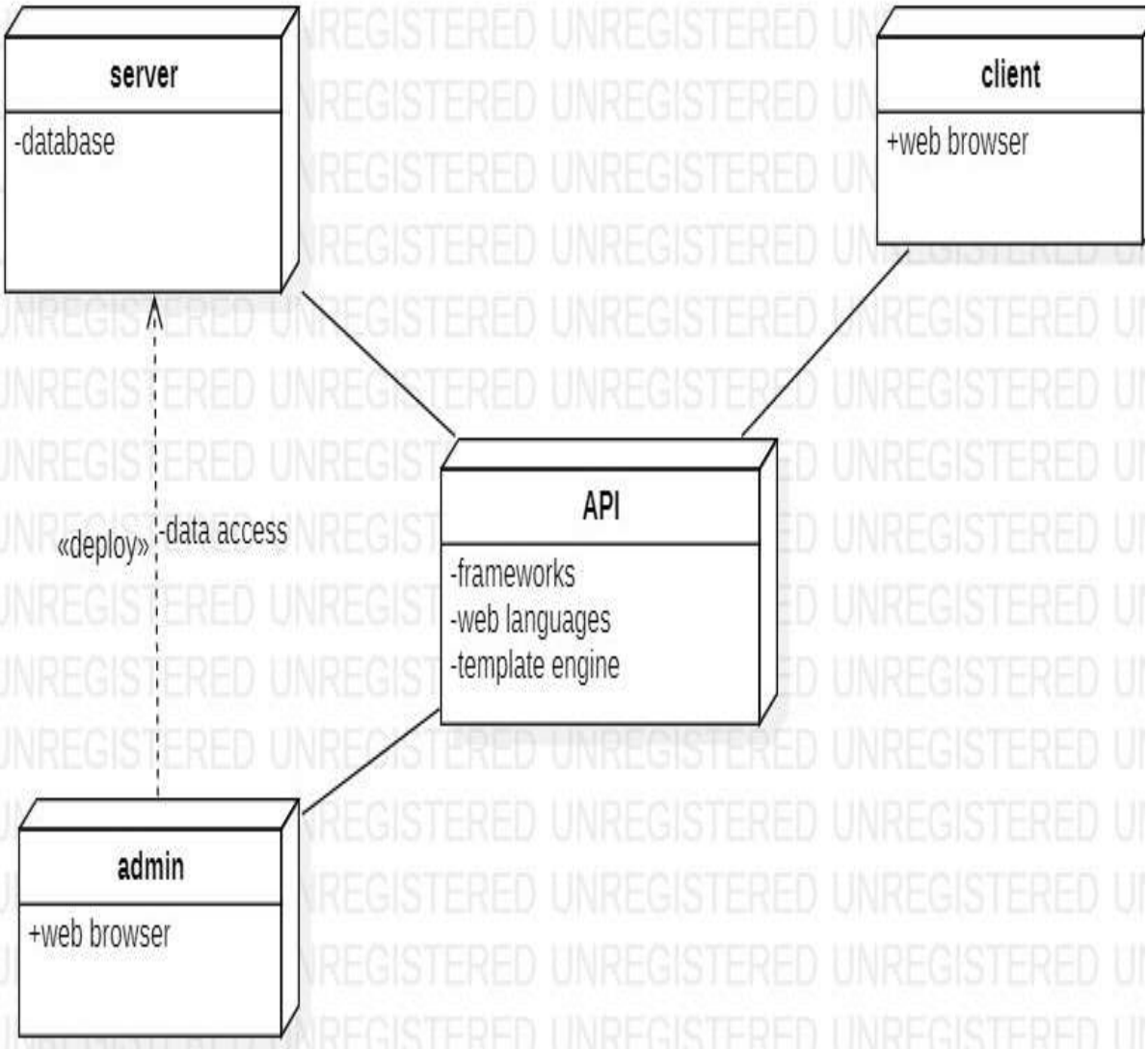

Fig 4.8 Deployment Diagram

CHAPTER 5

SAMPLE CODE

This project is developed using JavaScript, node.js, SQL

HTML WebPages are rendered using handlebars(.hbs) engine template.

5.1) CODE STRUCTURE

The project program files should follow the below folder structure strictly.

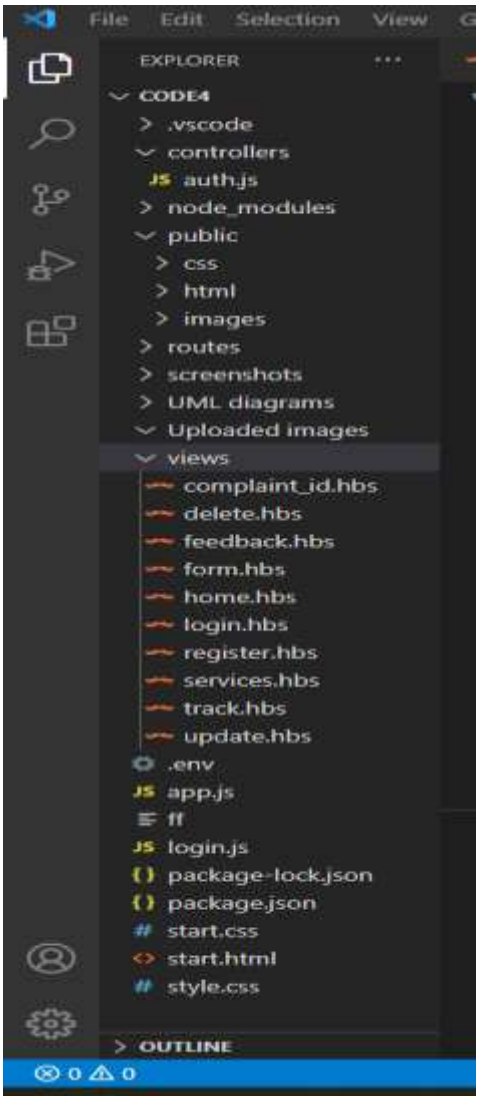

Fig 5.1 Folder Structure

5.2) PACKAGES REQUIRED (package.json)

All the required packages of node.js for the project are installed from node package manager(npm) and all those installed packages are logged in package.json file.

The file appears as follow:

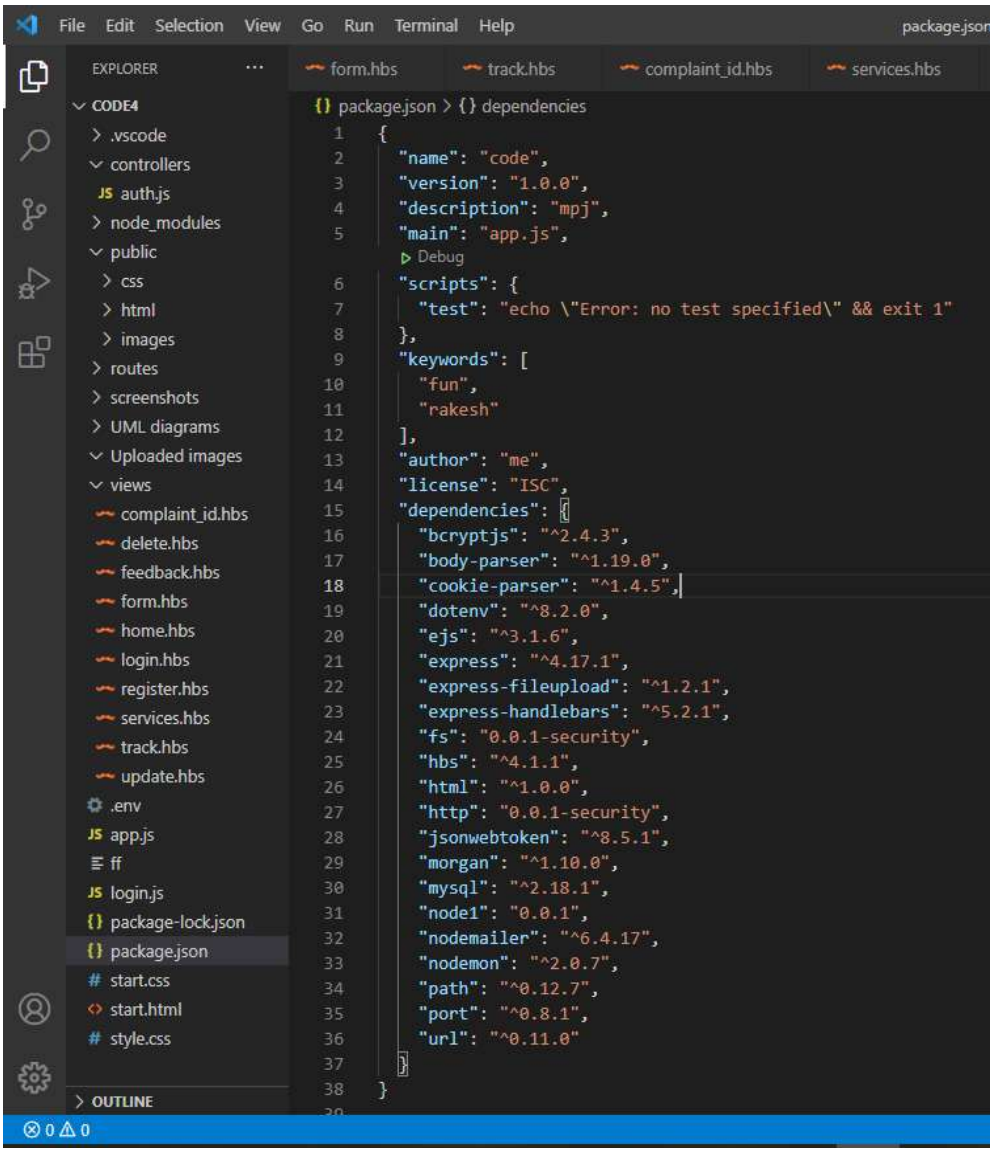

Fig 5.2 package.json file

5.3) HOME PAGE

Follow is the code for home page

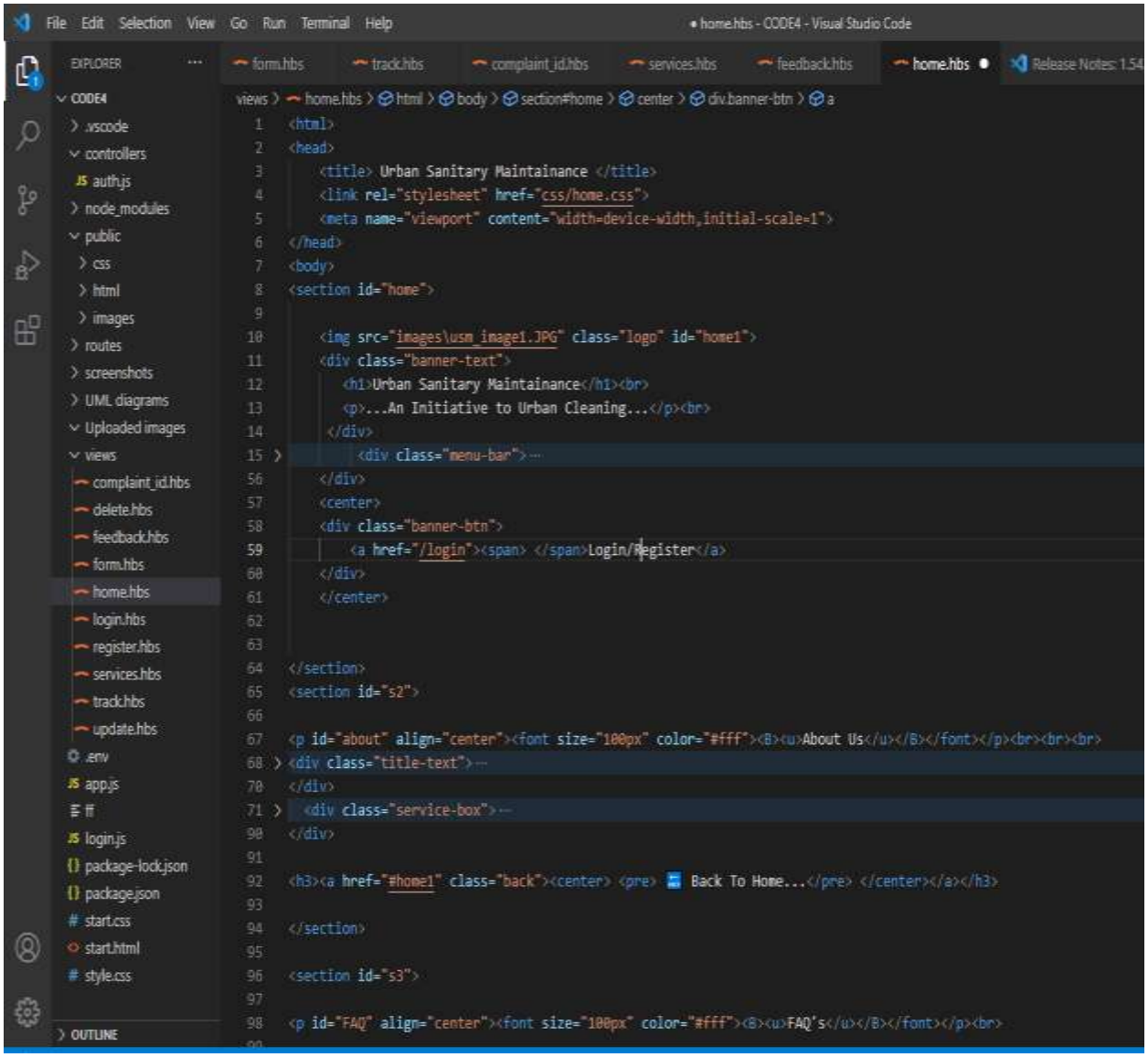

Fig 5.3 home.hbs

5.4) RUNNABLE FILE(app.js)

app.js is the main file for the project where in which we do the following things :

- ✓ Routing the html pages
- ✓ Connection to the database server
- ✓ Writing the dynamic behavior for the WebPages.

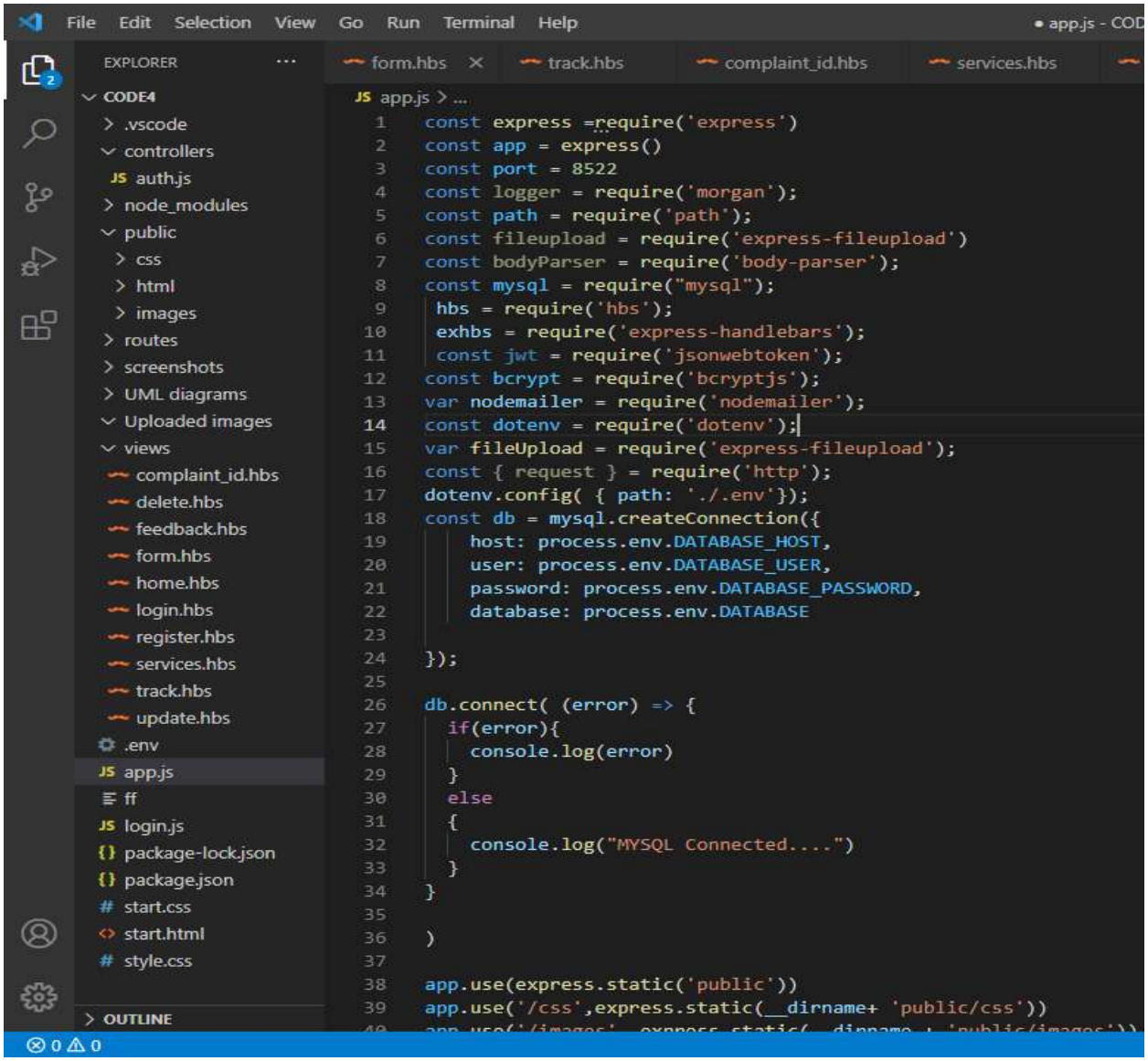

Fig 5.4 app.js file

CHAPTER 6

OUTPUT SCREENS

6.1) HOME PAGE

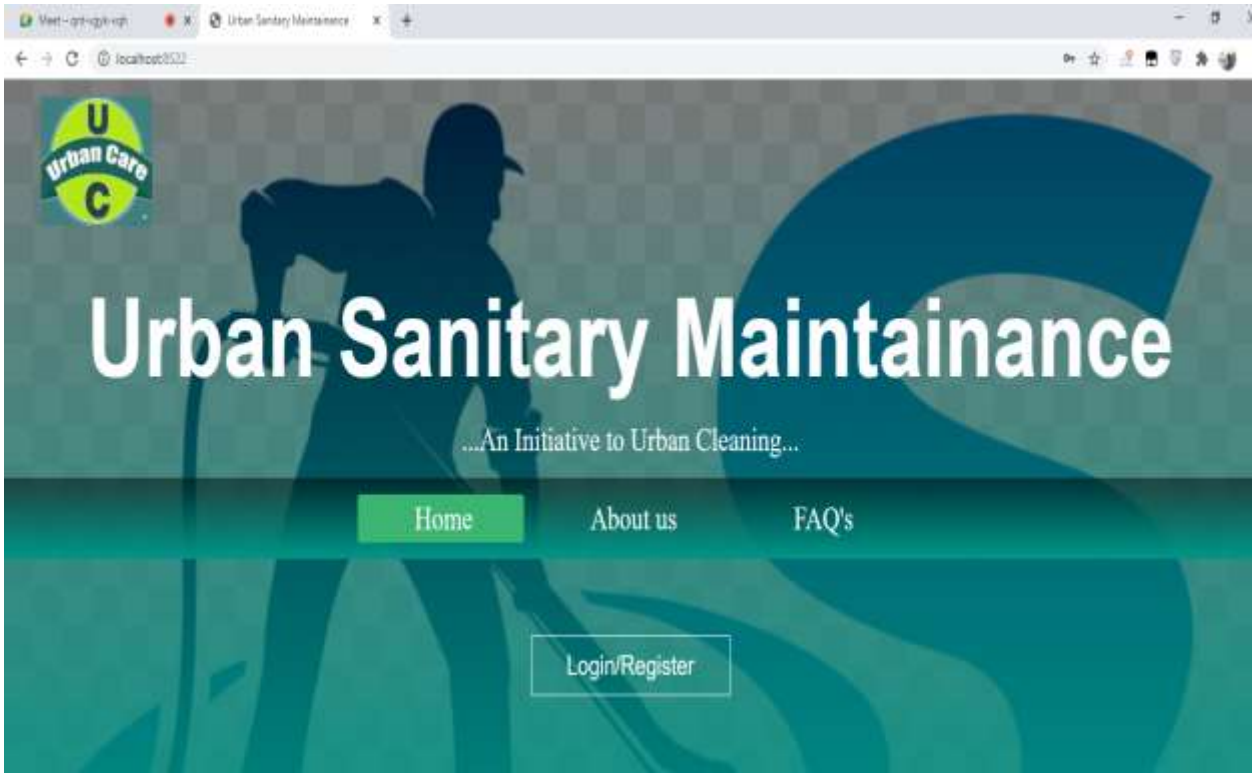

Fig 6.1 Home page

6.2) REGISTER/LOGIN PAGE

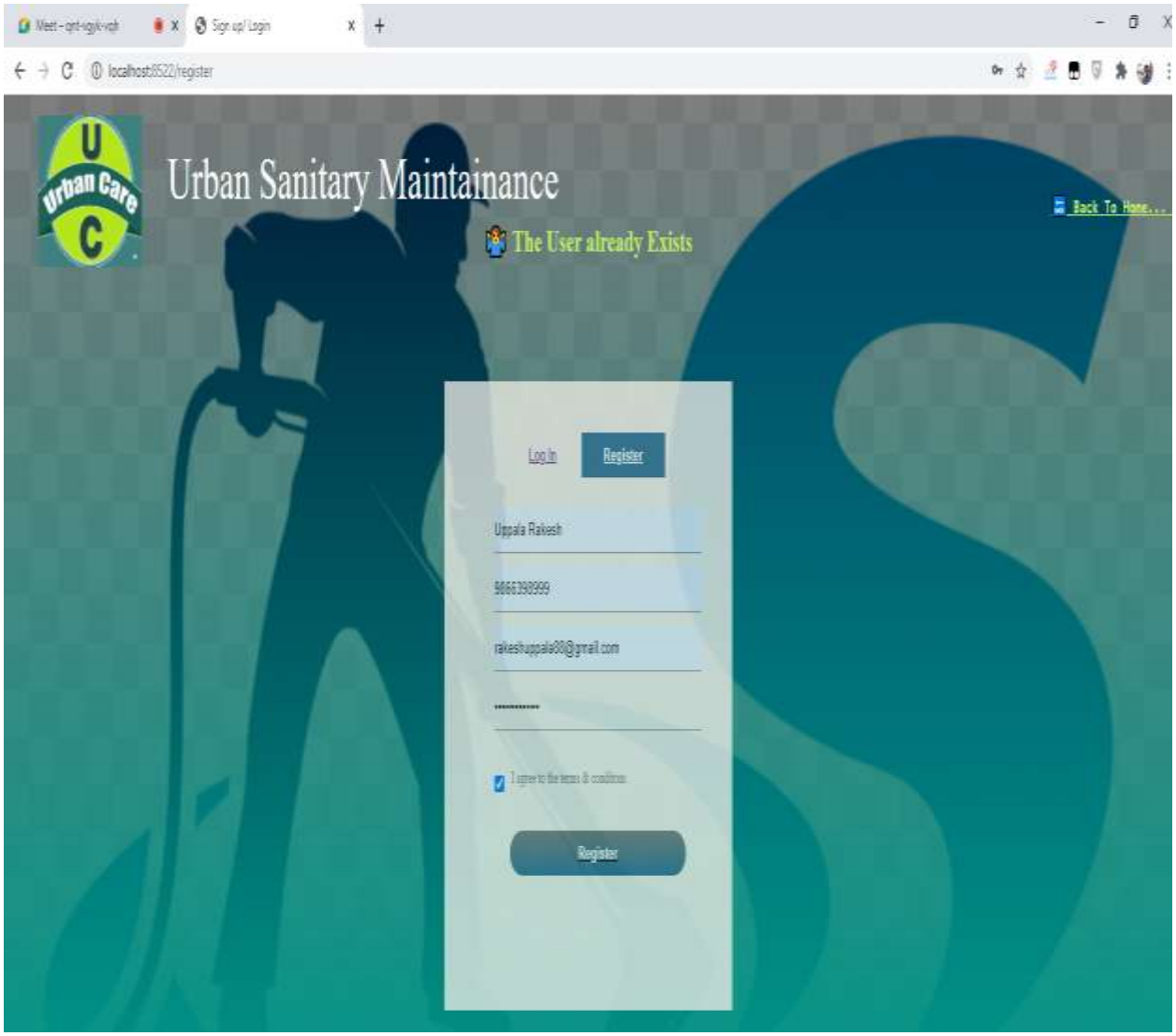

Fig 6.2 Registration page

6.3) SERVICES PAGE

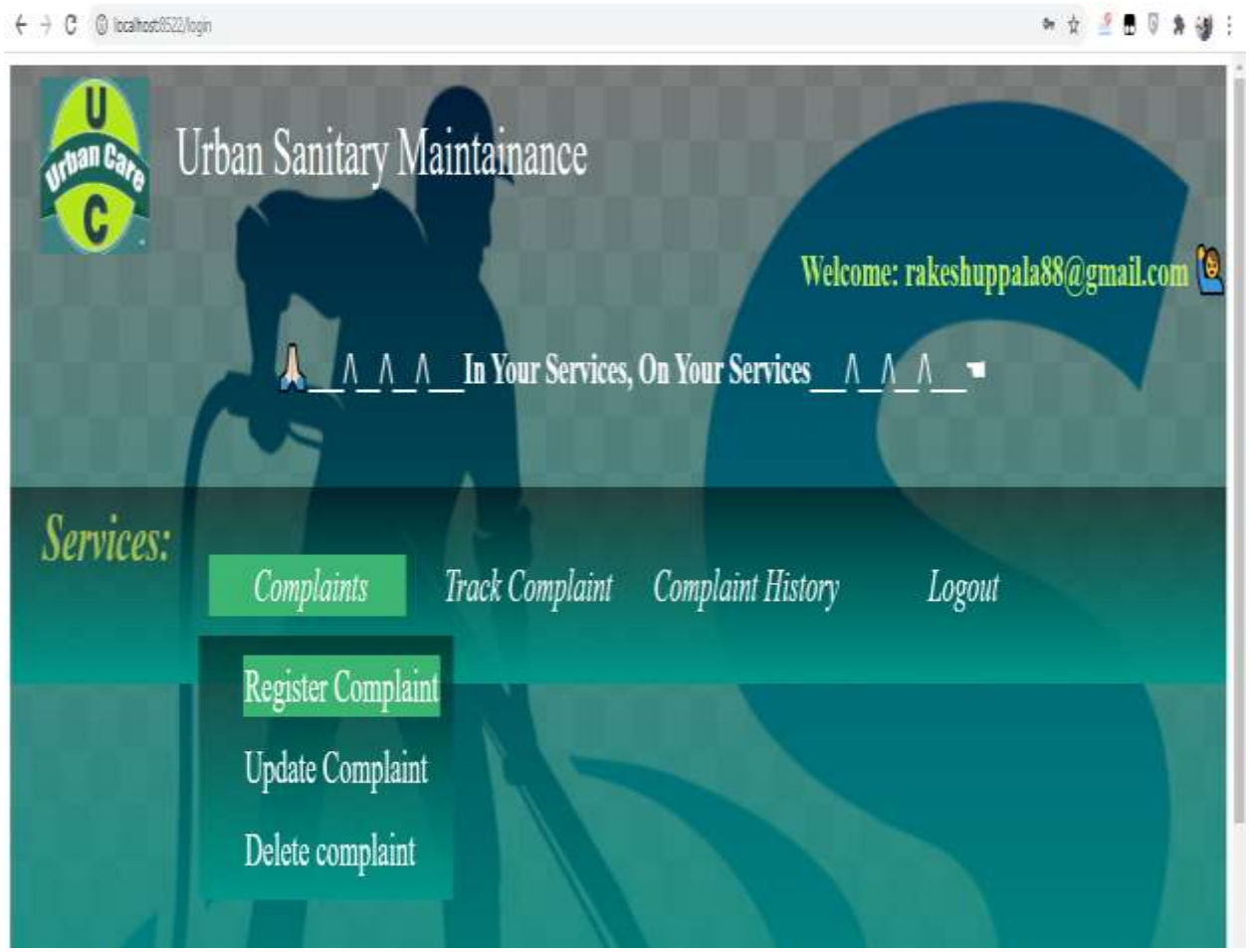

Fig 6.3 Services page

6.4) COMPLAINT REGISTER FORM

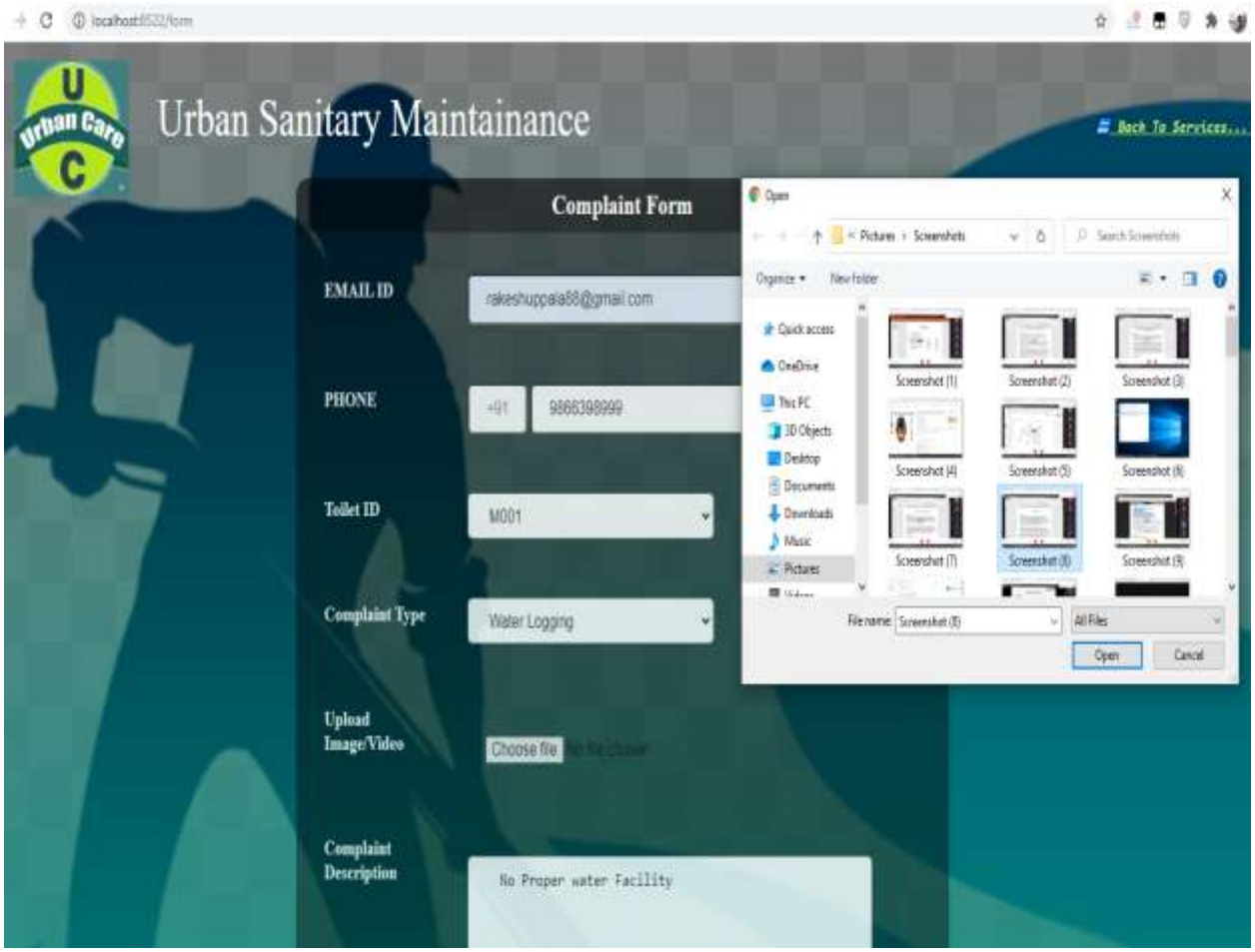

Fig 6.4 Complaint Register Form

6.5) REGISTERED SUCCESSFULLY

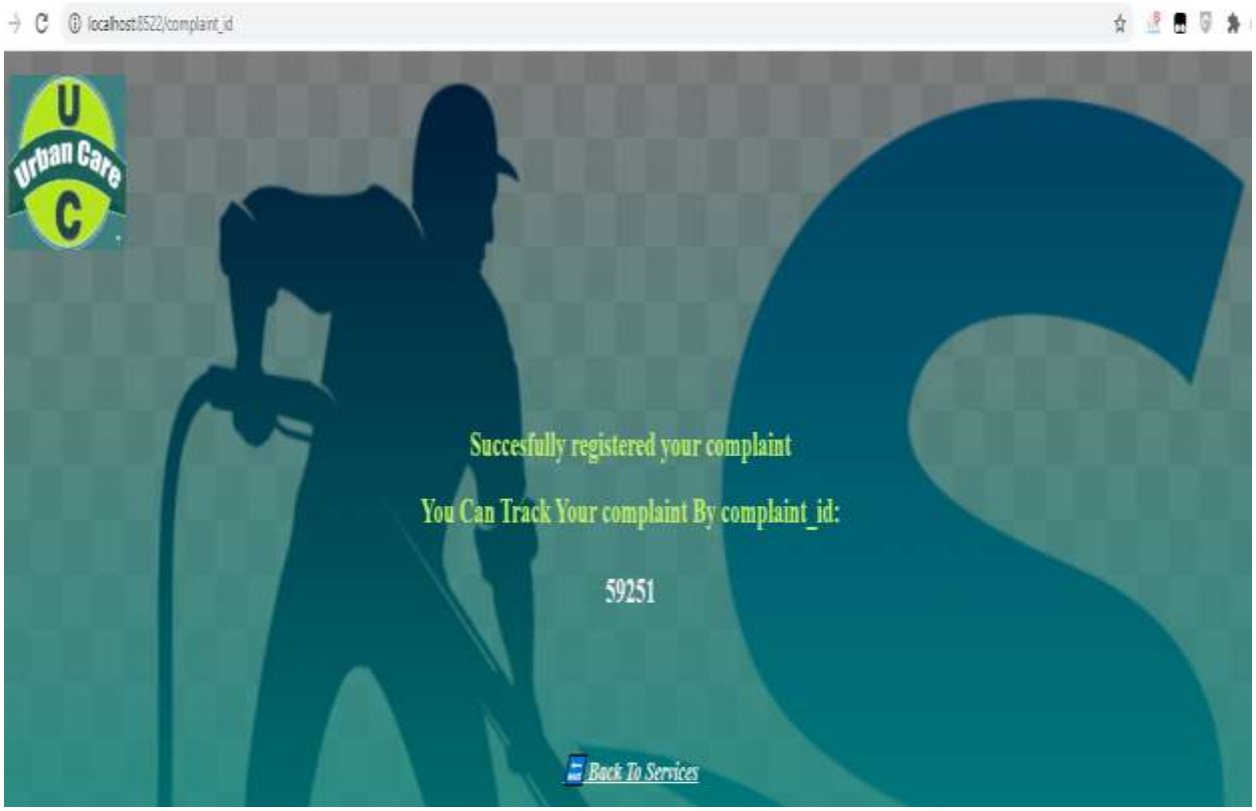

Fig 6.5 Registered Successfully

6.6) UPDATE COMPLAINT

Fig 6.6 Update Complaint

6.7) TRACK COMPLAINT

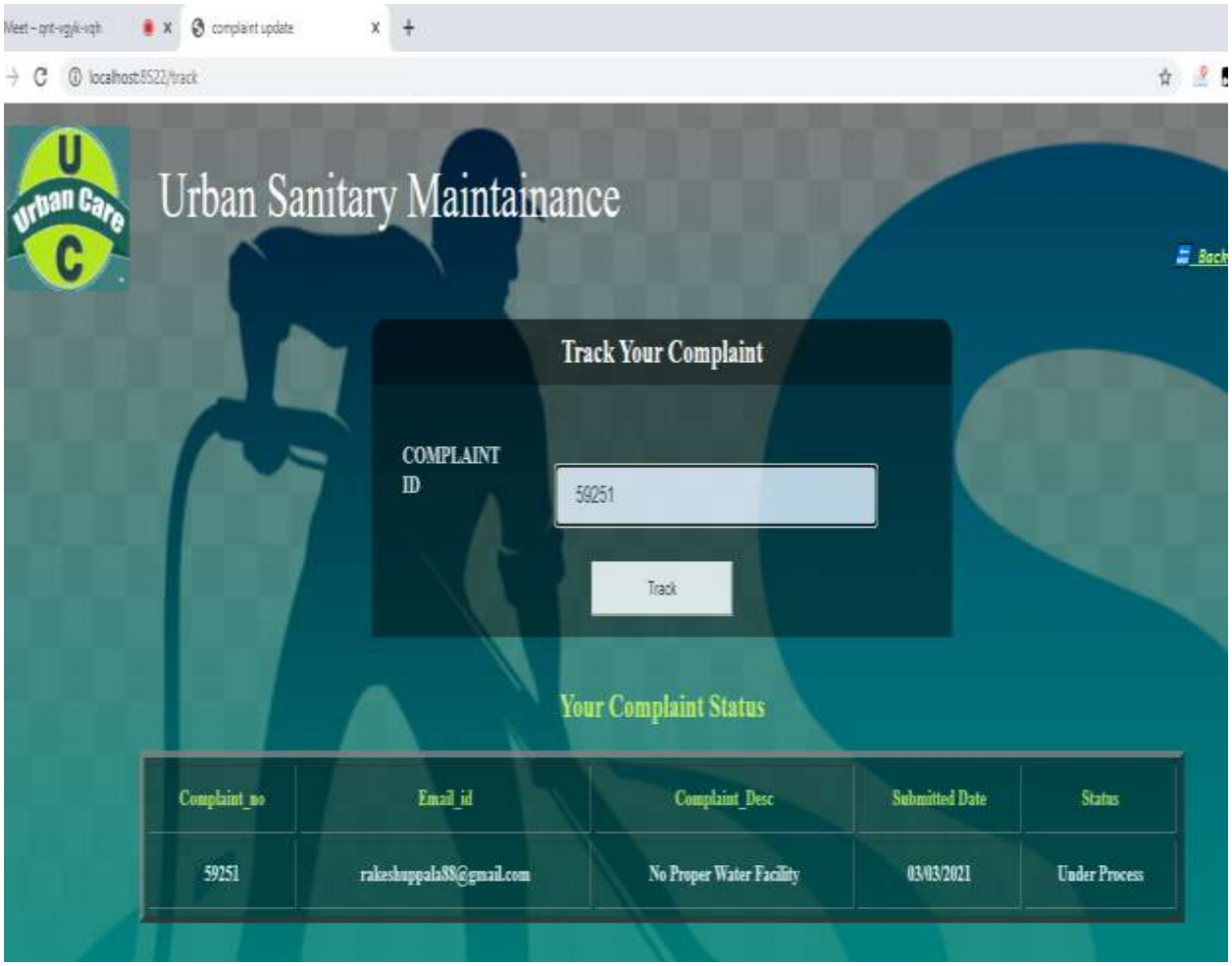

Fig 6.7 Track Complaint

6.8) DELETE COMPLAINT

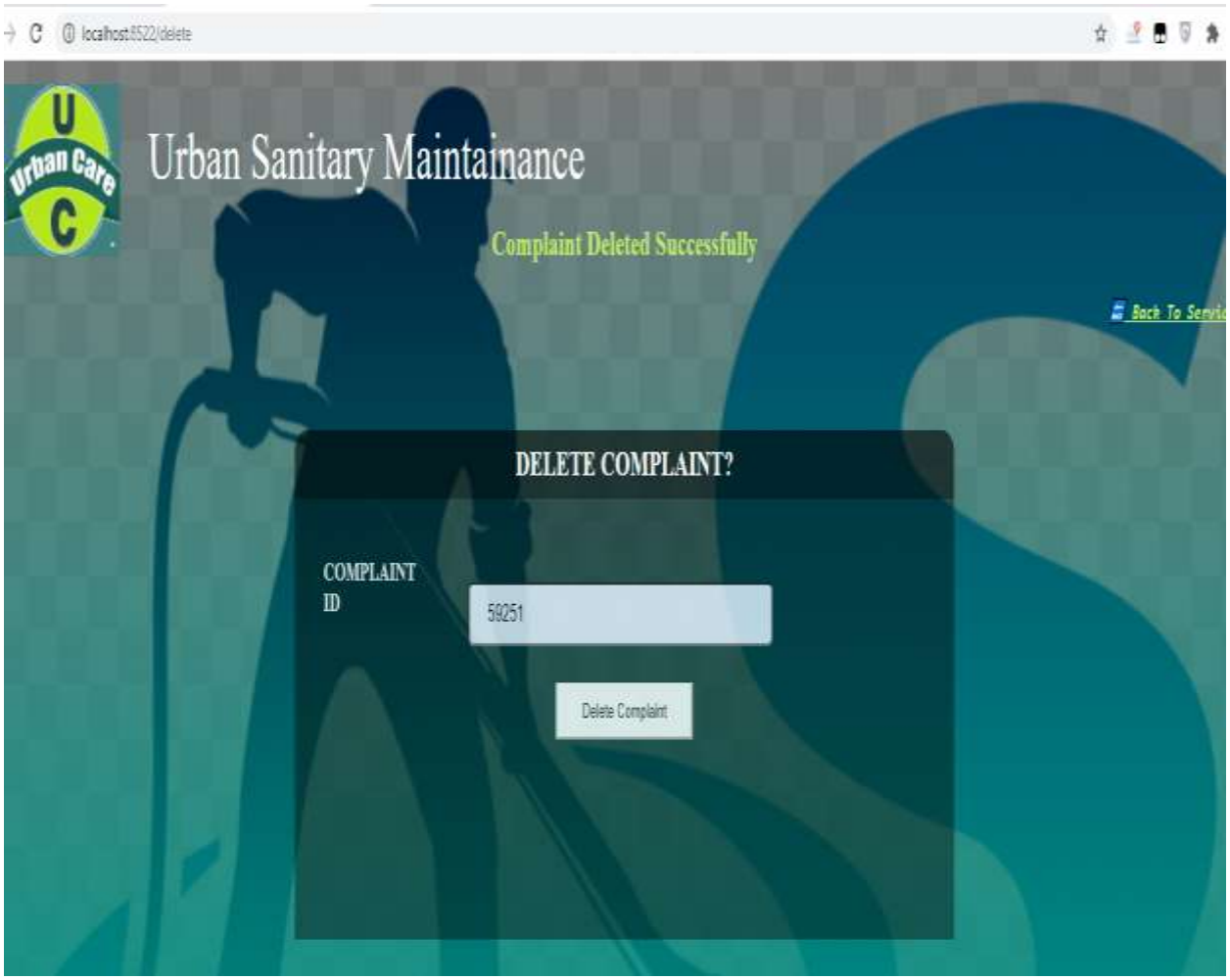

Fig 6.8 Delete Complaint

6.9) EMAIL ALERT

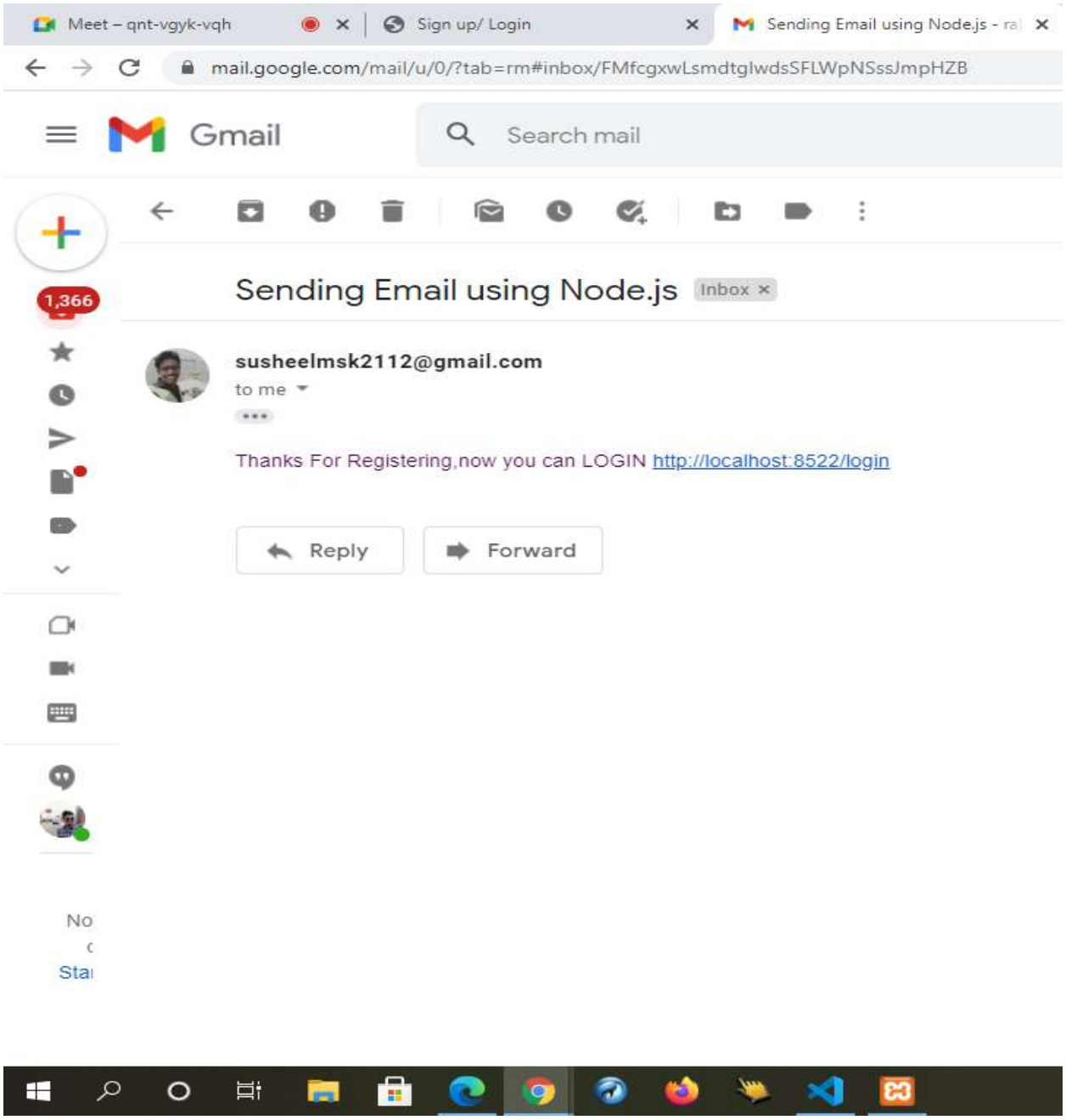

Fig 6.9 Email Alerts

CHAPTER 7

CONCLUSION

We aim to provide a better treatment for sanitization in the city through better and convenient online complaint system**.**

Cleanliness is the first step of Development……

CHAPTER 8

FUTURE ENHANCEMENT

The partial fulfillment of the project can be enhanced to some other extent by implementing the following.

- ✓ We will include as many features as possible for the better interaction of users, based on their feedbacks.
- ✓ We can implement QR code System to track the address and necessary details of toilets in Metropolitan areas.

REFERENCES

JavaScript tutorial site: https://javascript.info

Node.js tutorial site: https://www.w3schools.com/nodejs

MySQL tutorial site: https://www.w3schools.com/mysql

Related video links:

- https://youtu.be/wHFflWvii3M
- https://youtu.be/p2JI2PrvleU
- https://youtu.be/A01KtJTv1oc
- https://youtu.be/U5h97cFmj8I