

**SMART COMPLAINT SYSTEM**

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This Report Presented in Partial Fulfillment of the Requirements for the  
Degree of Bachelor of Science in Computer Science and Engineering

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**DAFFODIL INTERNATIONAL UNIVERSITY**

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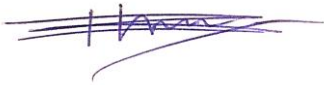
**TUESDAY, 01 JUNE 2021**

## **APPROVAL**

This Project titled “**Smart Complaint System**”, submitted by **Asadullah Galib, ID No: 163-15-8412** and **Iqbal Al Islam, ID No: 163-15-8536** to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 1<sup>st</sup> June 2021.

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## DECLARATION

We hereby declare that this project has been done by us under the supervision of **Ms. Refath Ara Hossain, Lecturer, Department of CSE** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

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## **ABSTRACT**

The main objective of the project is to create an application that would retrieve grievances with descriptions, pictures of the situation, or different urban issues. The module would improve good communication/interaction between the public and city management. The application which contains pages about a user must be dynamically developed based on the user ID and the password and the collection of information pages. The system works to better administer the building site or handle urban waste and thus eliminates human authority. This system doesn't need to keep many administrators. Citizens and managers will be happy with such a system. As Dhaka City Corporation began its quest for the development of digitalized the whole city, Smart Complaints System will help to serve some issue in the daily life of the city. This will help to protect public rights.

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# **CHAPTER 1**

## **Introduction**

### **1.1 Introduction**

Smart Complaint System (SCS) for City Dwellers project meets the needs of the city's citizens to better manage the city (intending to many city issues such as road waste, road building, gas, electricity problems, etc.), SCS combines systems and processes that connect citizens with the City Dwellers. Projects for City Dwellers Each city company is entitled to preserve or solve the problems facing people in their everyday lives. However, it is often impossible or not practicable for authority to pass through every street or area. It is thus impossible for them in their downtown area to know all the issues. The organization's customers are the key factor. The company must support customer preferences and customer loyalty requirements which the customer also buys from the company in particular. When a customer gets a service delay and does not know the channel for filing a complaint, the Customer may feel unhappy with the service and the existing complaint process of the organization also has the problem. The SCS provides the classification and automatic retrieval service for the department in charge, and the retrieval service for the same complaint to prevent duplicating it. The test result demonstrates that this system should decrease the time and processes for handling complaints, increase the stream for filing complaints and improve the progress reporting route and track the complaint progress.

## 1.2 Motivation

SCS should promote good communication and flexibility between the public and the city authorities. This web can also be accessed by citizens from anywhere in the city and posted on the Internet with their photographer's troubles, description, and location. For that reason, by resolving these issues, the City Corporation Authority should reach citizen satisfaction.

- A citizen can complain in this system about the issues he or she has to face with everyday urban life. The Authority (admin) can check and modify the current status of the complaints he has posted (if they are resolved or not).
- Furthermore, if it has been solved or not by the authorities, the Users can view their profile, their posts, and the status of posts.
- Further User can only register and log in if his/her ID is in the admin system.
- Admin can also change the status and view the number of posts posted by the user and the user's information.

The procedural issue with complaints:

- People may not know the complaint channel and how to file consumer complaints
- Clients spend a great deal of time complaining
- Clients have no complaint tracking channel

Problems of supervision of complaints:

- Redundancy of organizational grievances
- The information on the allegations is not coherent and not enough
- It has no channel to ask for additional information and feedback on the complaint.
- The agency responsible is not affected by complaints.

### **1.3 Objective**

SCS is intended to deal with issues using the website and chatbot for consumers to file complaints with the organization and the site request to manage complaints. In addition, the back-end services provide the right department to classify complaints and comparable complaints to discourage duplicate complaints. SCS must concentrate on maintenance complaints. The goal of Smart complaint management is to strengthen a city. The project's primary objective is to obtain the condition and relations between the authorities and the people of a city from the user's crowd posts. It also helps to build an effective, more reliable, and more user-friendly online system. In addition, communication between both parties is easier and time-saving for city management as well as for the residents of the city concerned. The users are allowed to rely on the interest of the concerned authorities to uphold their issues. In the case of the authorities, information from this crowd may also concern itself with the fundamental issue from root to the top of their area. The intelligent complaint management system ensures successful communication with the public. The user should post his issue in the city with places, photo descriptions. And managers have all the authority to regulate everybody. Create an admin-accessible database system, so the administrator can save posts to that database.

## **1.4 Expected Outcome**

As our country is a developing country, our city corporations are also going to be developed and digitalized. Dhaka city corporation (both North & South) is gradually going to be developed and digitalized more. So we aim to create software that helps communication between citizens and authorities easily via the Internet. SCS can be able to solve some measure problems of a city like storing wastes on-road or here and there. And it will be able to make a strong relationship with citizens and city corporations. Smart Complaint System would be able to directly influence the citizens of a city to be aware and responsible about their city. If it is done properly and effectively, then the result will be in several positive development outcomes. The SMART COMPLAINT website is started on a platform for easy loading of complaints. This reduces the efforts of people by SMART COMPLAINT. The Lodger Complaint should share the location of the GPS. This app deals with the processing of internal complaints. The main goal of the system is to enable the public to know the particulars of their locations and solve their problems online without going to the office regularly until the problem is resolved.

## **1.5 Report Layout**

In this section, we will discuss the report layout. In the first chapter, we are talking about their introduction of a complaint management system, why we choose the project, the objective of the project, and what will be the expected outcome. In the second chapter, we have explained the background studies and the related work and we also explain the comparative studies and challenges you have faced and what are the scope of the problem. In the third chapter we got introduced to business modeling and what are the requirements to do the project use case Modelling after that the design requirements. In the design requirements part, we have shown the use case diagram, sequence diagram, ER diagram, and state diagram. In the next chapter, we have discussed the front-end design and the back-end design, the user interface, and implementation requirements are explained. In the next chapter, we have discussed the implementation of the database, implementation of front-

end designs, and we have added a lot of pictures of our project and how the project works can be understood by these pictures. After that, we have discussed some test cases and test implementations. In the next chapter, we have discussed the impact on society and the environment. In the last chapter, we have discussed the future development and conclusions.

## **CHAPTER 2**

### **Background Studies**

#### **2.1 Introduction**

Associated with the population's intelligent complaint management system, The people in one town can do many things and tasks online. It is a web application. The role of complaint administration in a city is to mobilize people so that they can participate actively in a city's development activities. It doesn't cost the group to view the auditor of a city. The view of persons as properties is part of the current administration of the city and its development. SCS maintains records to assess its performance and the areas of improvement required to further grow the city to produce resources as an asset. SCS acts in other cases as a data store. SCS acts in some cases as a data store so it keeps the user data, post title, post images, description, location, and so on. suggested by the authorities. in some instances.

Given the difficulties with the current procedure, I am interested in developing e-SCS software to provide within a fraction of a minute all the information required for the field being affected. The users must input all the information they need in this area, such as mentioning the issue, simply snapping pictures of the area, describing and locating the area in question, etc, and the users can view information posted in the software and the administrators can see it from the website at a certain moment. The application also allows users to view file a complaint status until settled, while the Municipal Corporation's online system will support officers to settle/dismiss the complaint with reasons and monitor the complaint status. This application aims to simplify and make it quicker and less expensive to complain about the respective state corporation.



## 2.2 Related Work

The collection by its official representative of information from the citizen via online and offline and the auditing of the city area has been widespread in recent years. The field was previously commonly known as "Gana Songjog." It was a procedure offline. Dhaka City Corporations recently submitted an app to residents with a simple complaint box that is less efficient and more thorough, since it only has a simple title and description box. The Smart Complaint Systems complaint section provides a way for authority to acquire, store, analyze and distribute information for action. There are online and offline complaints boxes overseas that have been lodged by people since years ago. In the context of digitalization, municipal companies often attempt to digitalize themselves and be more active in solving problems. The Mayors of DCC both North and South are taking all kinds of measures from 2015 to keep pace with modernism and be up to date and make people more well-off. As a result, the residents of the country who have sent a complaint box[1] are offered online. In 2017, about one year ago (just with the DSCC), DSCC started 'Amar Dhaka' [2], a major concern was to provide digital support to people so they could know and apply for various types of urban enterprises and national forms in the municipality. Where the 'ovijog' (complaint box) was functionality in that app. The 'SMART COMPLAINT' app is launched for easy complaint loading on a platform. SMART COMPLAINT thereby lowers the efforts of individuals. Complaint Lodger can share GPS location. This app addresses internal complaint processing. The primary objective of this system is to let the public know the specifics of their places and solve their problems online without coming periodically to the office until the problem is solved.

## **2.3 Comparative Studies**

E-SCS is an application website, in which municipal authorities do digitalize work by preserving photo complaints in orientation. Any concern of the communicative events should log in to the software with prior consent because its profiling has to confirm itself and if the complaint has been filed, it can know the specifics and current circumstances. By improving the IT industry, organizations can save time and costs through E-SCS. Small city agencies such as "Pouroshova" can use the paperwork to handle their complaints information, but the management of medium and large enterprise's complaints is too complicated. Anything about it. E-SCS is trusted software, regardless of business size, to achieve the final output and to store large data in a database by a factor. By using this software, management may receive error-free data at any time. Many city companies are the fertile users of E-SCS, such as the City of London, the Dhaka City Corporation, etc.

The management of complaints is a key component of any policy framework and particularly applicable to public sector agencies with service-oriented positions. Agencies have to respond to allegations in an efficient and timely manner with rising public expectations. The nature of conflict management and complaint systems in the world also needs to be acquired, reviewed, and understood. There is a need for studies on how women and men work in complaints systems. Research is needed on how systems operate for a wide variety of national groups, for people of various socioeconomic classes, ages, faiths, and particularly contract workers and migrant workers in each country. Studies of complaints systems are required in religious organizations, schools, political organizations, the military, and a wide variety of specialized professions. Important specialist issues such as freedom of speech need studies.

## **2.4 Challenges**

The first challenge is to understand the company's current manual management process correctly and gather the relevant data. The addition of a large number of identities is also a problem. The correct storage of data that none can erase in any way is another challenge. This is a great challenge we have faced inputting software for an entire requested report. SCS uses different data types. Validate the data. The current postal condition should be in real-time.

## **2.5 Scope of the Problem**

SCS shall provide the authority, when necessary, with accurate information on the complaints of individuals. We must know the information necessary for a complaint to be submitted. If the organization wishes to view all posts, which factor must be taken into account when selecting troubling issues first to be addressed? How can we make a separate distinction between them in the case of solved problems? We have to know what kinds of information they have to register, how they handle their complaints. What should be considered in the event of a resolution assessment? We need to hear what kind of grievances City Corporation expects from the complaints log system.

## **CHAPTER 3**

### **Requirement Specification**

#### **3.1 Business Process Modeling**

The quality of the software development is a business process model for the intelligent complaint management system. Modeling of business processes (BPM) is the subject of any combination, to support company goals, span-out systems, workers, clients, and partners both within and outside corporate borders, of modeling, automation, execution, control, measurement, and optimization of the business activity flows. Data Flow Chart depicts a corporate sequence of events. An enterprise must concentrate on software benefits. The model of enterprise process of the smart complaint system is aired and published by stingy of the Android and Web models in the city company.

BPM aims to improve the solution and precision of the relevant function and to distribute the consumer with an explicit and consistent definition of the interface. One of the key criteria for effective enterprises when overseeing customer needs and defending their brand is a strong complaint management system. We will help you take major steps towards customer satisfaction through the implementation, evaluation, certification, and training of the complaint management system. A complaint refers to an organization's displeasure with its goods or the complaints process itself, where an answer or resolution is expressly anticipated.

## 3.2 Requirement Collection and Analysis

**Identification:** Admin should provide the system database with the identification number of the city's electoral area. Following this entry, users should register by submitting the id in the registration criteria.

**Posts:** Users would be able to post by submitting the information they need, such as title, description, issue photos, and user-friendly locations.

**Counting Posts per User:** In addition to your user mail, the number of posts of a user will be shown to the admin. And with this User Info section, the admin will search him.

**View of Posts:** This feature will display the entire list of posts posted by a user with a current view of the action against their posts. There is a web-based advertising perspective, too. All posts from the application can be viewed by users too.

**Admin:** Only admin (authority) can access and view messages in this function. At the very first admin, the inhabitants of his/her valued area would add the identifying number. Administrators may alter the current status of users' posts. This section is located on a website. This page can be accessed by the admin. The homepage displays all data, user information, number of posts made by a specific user for admin.

**New User:** A person should indeed be registered for using the application. If a user remains in the database of the system, he or she will be able to register in this system. If anyone is enrolled in the database, they can log into the rest of the process. If you are not registered, the registration process must be followed and you must first register.

- A person can be considered a user of this system after a successful registration. You will then log into the web app.
- **Registration:** If the User is part of the following city company, the User may register

himself as their id is stored in the system database. User login: By username and by password users should log into the SCS system. If the information is accurate, you can successfully log in.

- **Logout:** SCS system users may log out.
- **Failure to register:** When a user's phone number fails during registration, an error message will be displayed.
- **Login failure:** If the information is not provided by a user, an error message will be displayed

### 3.3 Use Case Modeling and Description

The case diagram represents the interaction between system users and the Software. The application is browsed by the user, with the login option available. You must first register as a new user and then log in or access the system. Only the primary functionality of the system is displayed in the use case. The user/citizens are involved. The use cases displaying the features

- User Registration.
- Login respectively.
- Post a Compendium.
- See complaints.
- Towards Admin Login.
- User Storing ID.
- Changing Post Status.

In figure 3.3.1, A user can access the application by login only if he/she is registered before. Users can create an ID for login by providing the required information asked on the registration page. Then they can post a complaint by providing the information of required fields. Users can view the posts and the current status of posts.

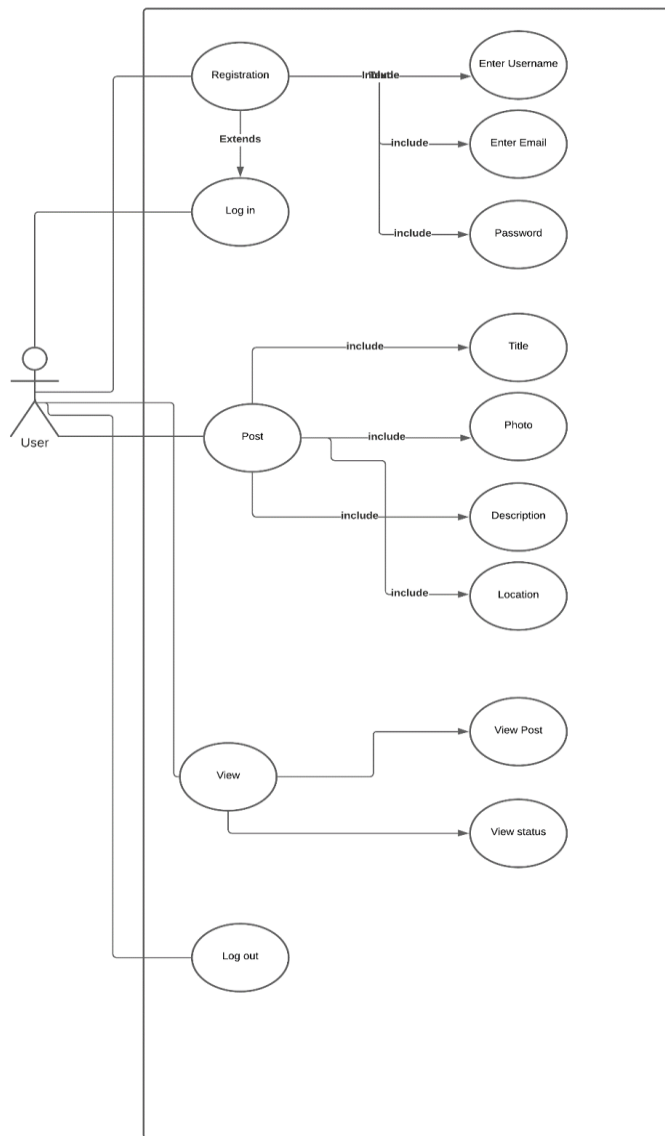


Figure 3.3.1: Use Case Diagram (User)

Admin would log in to the system's website in figure 3.3.2. It should store the identification number of its inhabitants. If the complaint has been resolved, you will change the status of posts and view the posts and status. It can view the count of posts per user and can also view user information.

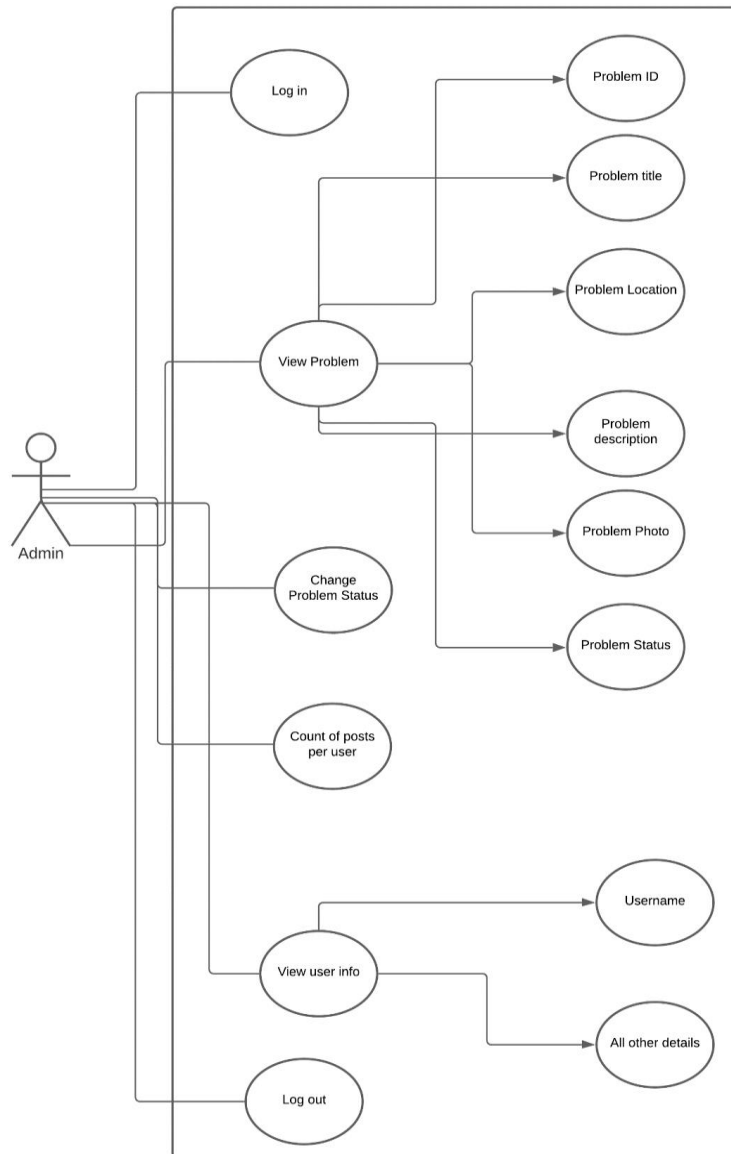


Figure 3.3.2: Use Case Diagram (Admin)

### 3.4 Logical Data Model

This section discusses the qualities and relationship of database objects with a database dictionary and confusion-crossing tables. These data items are taken into account. There



are three primary database communities of the SCM system. First of all, the information on the user ID is stored, secondly, the data module of complaints is stored, and thirdly, the user registration data module is stored. A system logically represents data stored in a database in the Logical Data Model.

### **3.5 Design Requirements**

Design is the step after demand and construction specification. The website design includes three technical tasks - design, coding, implementation, and testing, which are necessary for website construction and verification, once the website specifications have been analyzed and defined. Design tasks are of primary importance at this stage because decisions affect the success and ease of maintenance of the website implementation. These decisions ultimately relate to the system's reliability and maintenance. Design is the only means by which customers' requirements are properly converted into the completed website or a system. Design is the location of development that promotes quality. The design of the website is a process by which specifications can be converted into a website representation. Two steps are taken to design a website. Preliminary design is about transforming demands into statistics.

- Use case Diagram
- Sequence Diagram
- The ER Diagram
- The State Diagram

#### **3.5.1 The ER Diagram**

The E-R graph represents ways that are interrelated with a particular domain. It consists of entities and determines relationships between instances of these entities. For such a system, this is an E-R diagram.

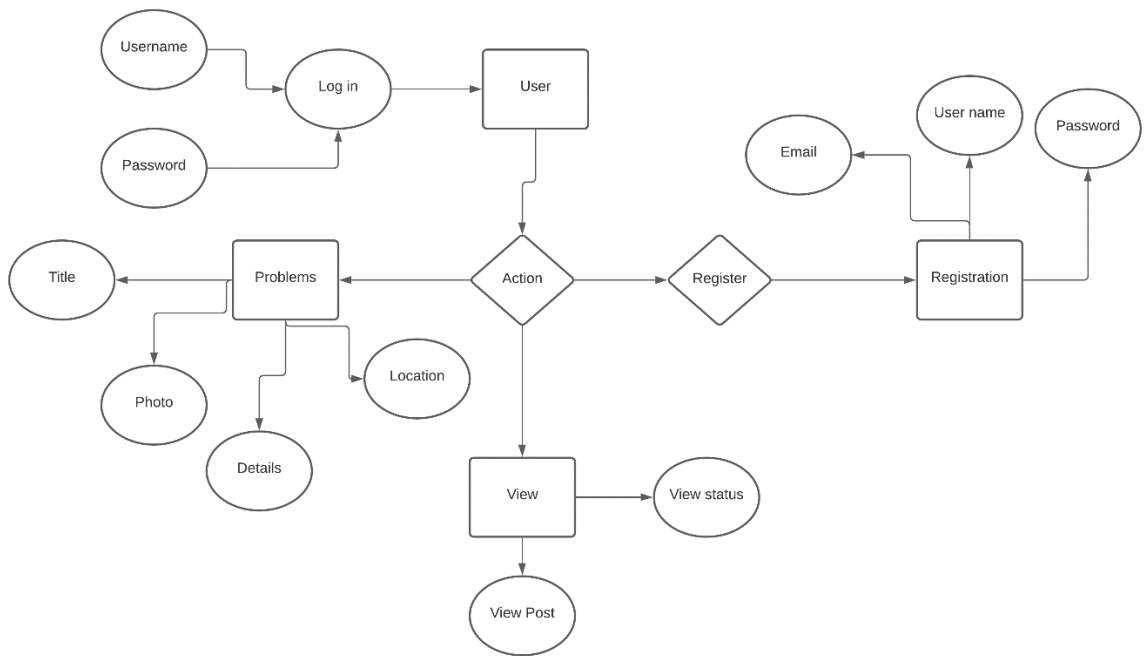


Figure 3.5.1: ER Diagram

### 3.5.2 Sequence Diagram

The interaction between admin and user is a sequence diagram. The communication sequence is maintained gradually. It's a sequence chart hence. Sequence diagrams are also referred to as event or event diagrams.

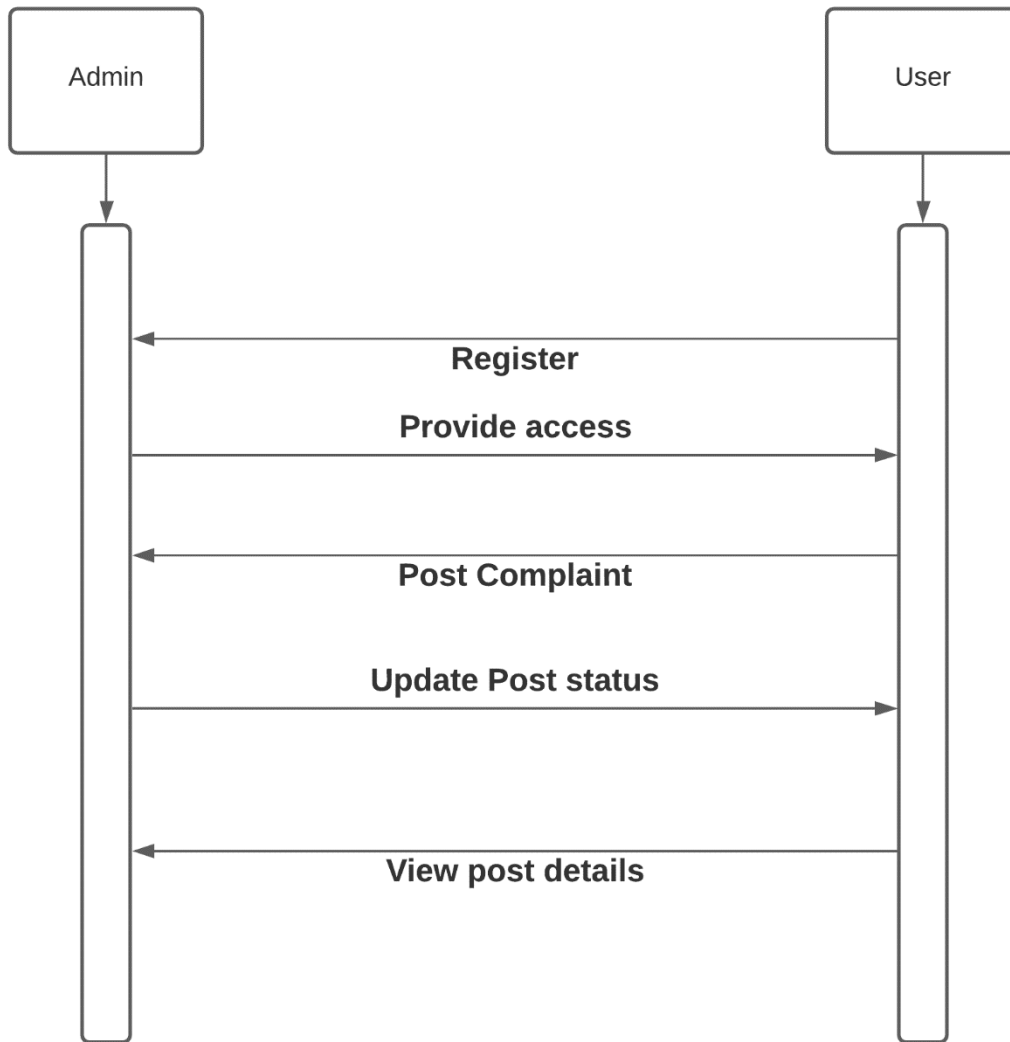


Figure 3.5.2: Sequence Diagram

### 3.5.3 State Diagram

The state diagram of our system is kind of like this one

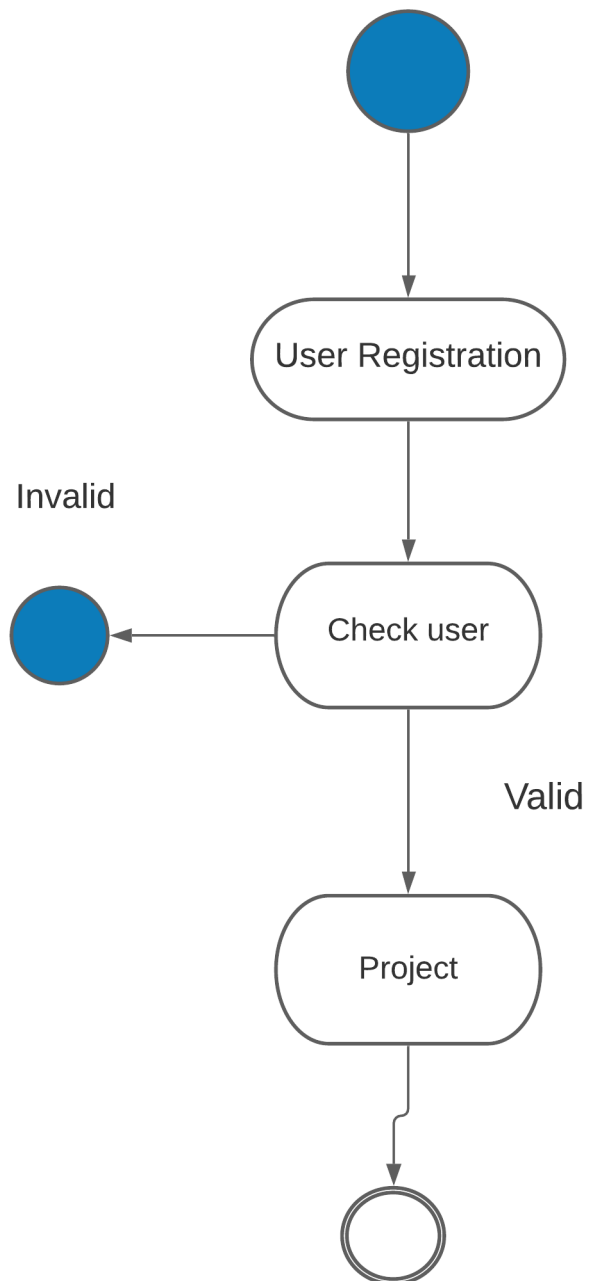


Figure 3.5.3: State Diagram

## **CHAPTER 4**

### **Design Specification**

#### **4.1 Front-end Design**

The front end is all included with what the user sees, including Android, HTML, CSS, MySQL, and so on. At the front end, HTML, CSS, Html have been used for many days now, to make a basic design, and CSS is used for website layout. For the client-side behavior, JavaScript is used. Website web designer. It doesn't have to touch the code. In the Application, the web is used. The web is a frequently used application language. And here is Web Html for app user interface construction.

#### **4.2 Back-end Design**

The side of the server is the back-end site. SQL is a Relational Database for Structured Query Language. Many servers like SQL, MYSQL are available SQL contains many versions and runs in software Visual Studio. SQL works by updating, removing, inserting, etc. A dynamic website needs to be created in reverse growth. For Android, the developer works with the language of android programming to decipher the database. Web developers work with web pages such as PHP for websites, as they have to work with everything that the database knows. The code you write is sent to the Server and then the application is told what the database should use.

#### **4.3 Interaction Design and UX**

For user experience, interaction design is very significant. It's a handy model. Interaction Design primarily means an Android app and a webpage user interface design. The user-friendly construction of this interface for android app or websites means that UX is essentially user-friendly. UX is used for the implementation of the front end. It identified

how they use an app/site and make changes through a developer's tests. It guarantees user satisfaction through improved usability and accessibility.

#### **4.4 Implementation Requirements**

We began implementing our website after the design stage was over. Initially, a device backed by Android and front web browsers with internet connectivity is needed to execute the website, and for the design of the Front end, we use Android programming language as App forms and HTML as a Web form. CSS language is now used for web design. For consistent image processing, we have used Photoshop. We use Android Studio and atom applications for HTML and CSS. We use MySQL to build the back-end. Xampp Server is a client/server relation database based on the Structured Query Language (SQL). These are the requirements for the website. We need an android-supported device li for hardware requirements. We need a device like a mobile and a computer that is connected near the local server for hardware requirements. We are working on Windows 10.

## **CHAPTER 5**

### **Implementation and Testing**

#### **5.1 Implementation of Database**

Data storage for most information systems is a vital component. All IT systems are creating, reading, updating, and deleting data. In a file and a database, data should be retrieved. However, it has many drawbacks to keep data in the file. The construction of the database is the process of transforming the logical data model (ERD) into physical database schemas. The physical model of a database based on the selected database technology is a database scheme. The architecture of the database is based on a database administration system (DBMS). The Relational Database Management System (RDMS) is also used to support the overwhelming growth and reengineering of information systems. Database Relationship Save. The relational database collects data on tables linked via foreign keys.

When designing the object-oriented technology database The first candidate for database implementation of the objects studied in the Object-Oriented Database System. However, the object-oriented database remains a new idea and is not used commercially. Therefore, because of the following benefits, the relational database is the recommended option for implementing databases of the objects. Due to my various benefits in design, we have used Relational Database.

The database is shielded against system failure, trade failures, and the inability of the website.

Several users can access the database and can simultaneously read and write the same database.

The data stored in the database is supported with transparency.

The information in the database is shielded from illegal reading and writing.

In Figure 5.1.1 it is the picture of the Admin details table in our database

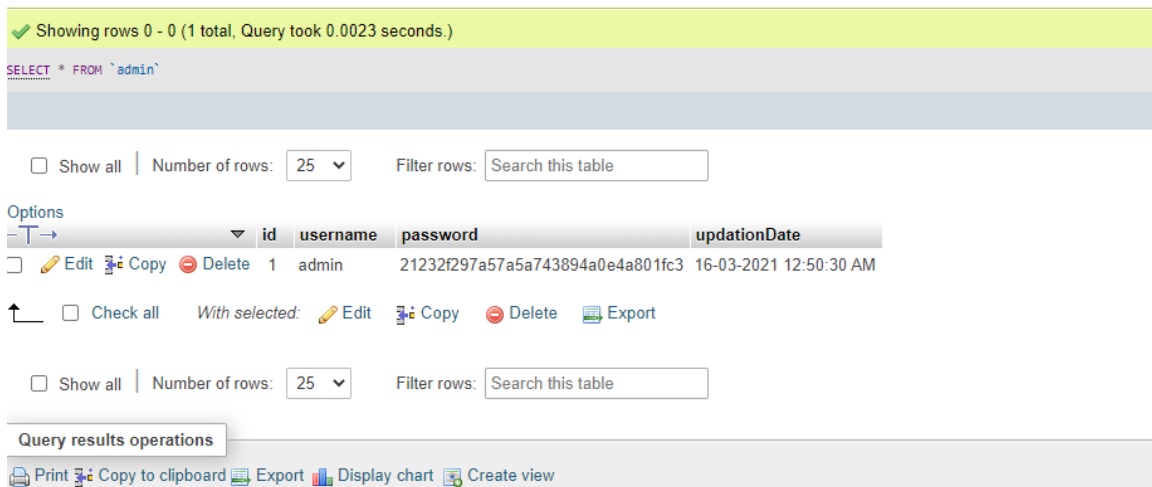


Figure 5.1.1: Admin list table

In Figure 5.1.2 it is the picture of the Categories of complaints table in our database

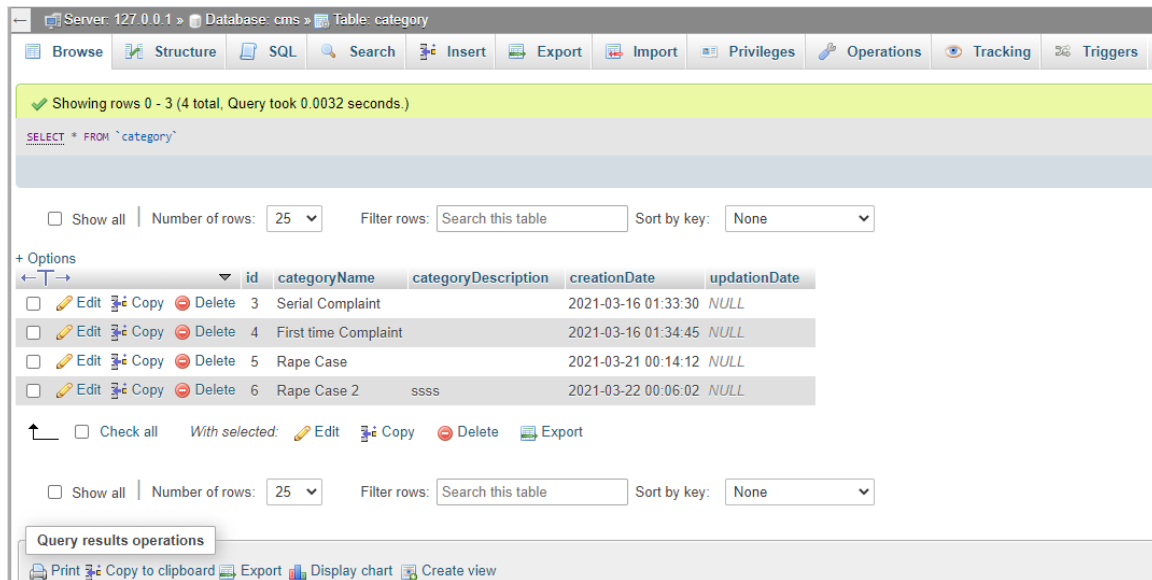


Figure 5.1.2: Categories of complaints



In Figure 5.1.3 it is the picture of our database

Table	Action	Rows	Type	Collation	Size	Overhead
<input type="checkbox"/> admin	★ Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 KiB	-
<input type="checkbox"/> category	★ Browse Structure Search Insert Empty Drop	4	InnoDB	latin1_swedish_ci	16 KiB	-
<input type="checkbox"/> complaintremark	★ Browse Structure Search Insert Empty Drop	14	InnoDB	latin1_swedish_ci	16 KiB	-
<input type="checkbox"/> state	★ Browse Structure Search Insert Empty Drop	4	InnoDB	latin1_swedish_ci	16 KiB	-
<input type="checkbox"/> subcategory	★ Browse Structure Search Insert Empty Drop	4	InnoDB	latin1_swedish_ci	16 KiB	-
<input type="checkbox"/> tblcomplaints	★ Browse Structure Search Insert Empty Drop	3	InnoDB	latin1_swedish_ci	16 KiB	-
<input type="checkbox"/> userlog	★ Browse Structure Search Insert Empty Drop	23	InnoDB	latin1_swedish_ci	16 KiB	-
<input type="checkbox"/> users	★ Browse Structure Search Insert Empty Drop	3	InnoDB	latin1_swedish_ci	16 KiB	-
<b>8 tables</b>	<b>Sum</b>	<b>56</b>	<b>InnoDB</b>	<b>latin1_swedish_ci</b>	<b>128 KiB</b>	<b>0 B</b>

Figure 5.1.3: Full database

In Figure 5.1.4 it is the picture of the User details table in our database

+ Options													
	id	fullName	userEmail	password	contactNo	address	State	country	pincode	userImage	regDate	updateDate	status
<input type="checkbox"/>	5	galib	galib@gmail.com	827ccb0eea8a706c4c34a168918447b	1718333084	NULL	NULL	NULL	NULL	NULL	2021-03-16 02:38:01	NULL	1
<input type="checkbox"/>	6	Anik	Anik@gmail.com	827ccb0eea8a706c4c34a168918447b	12345	Dhamondi	Dhaka	Bangladesh	12131	NULL	2021-03-16 05:02:25	NULL	1
<input type="checkbox"/>	7	iqbal	iqbal@gmail.com	81dc9bdb52d04dc20036dbd8313e0055	1754439905	Magura vainar mor Magura	khulna	Bangladesh	7600	54064691b83592dccc77a9abdb476c0fa.jpg	2021-03-21 00:20:53	NULL	1

↑  Check all With selected: Edit Copy Delete Export

Figure 5.1.4: User table

## **5.2 Implementation of Front-end Design**

The client-side development is another name for the front-end site development. The development on the client-side consists of the creation of HTML, CSS, and JS for a website or Web application. So a user can immediately understand and connect to them. The challenge of front-end development is that the tools and methods used to produce a front end of a website continually change and the developer must therefore be continuously aware of how the area develops. The goal of designing an app is to ensure that the information in a format that is easy to understand and pertinent to the web pages is provided when the applications are opened by the users. The fact that consumers now use a wide range of devices with different screen sizes and solutions complicates this further by requiring the designer to take those elements into account in the design of an app and a website. You need to make sure that your equipment is a version of various kinds and that you have a site in various browsers (cross-browser), different operating systems (cross-platform) that involves careful planning on the established side of the site.

In this Figure 5.2.1 it is the picture of our Homepage.

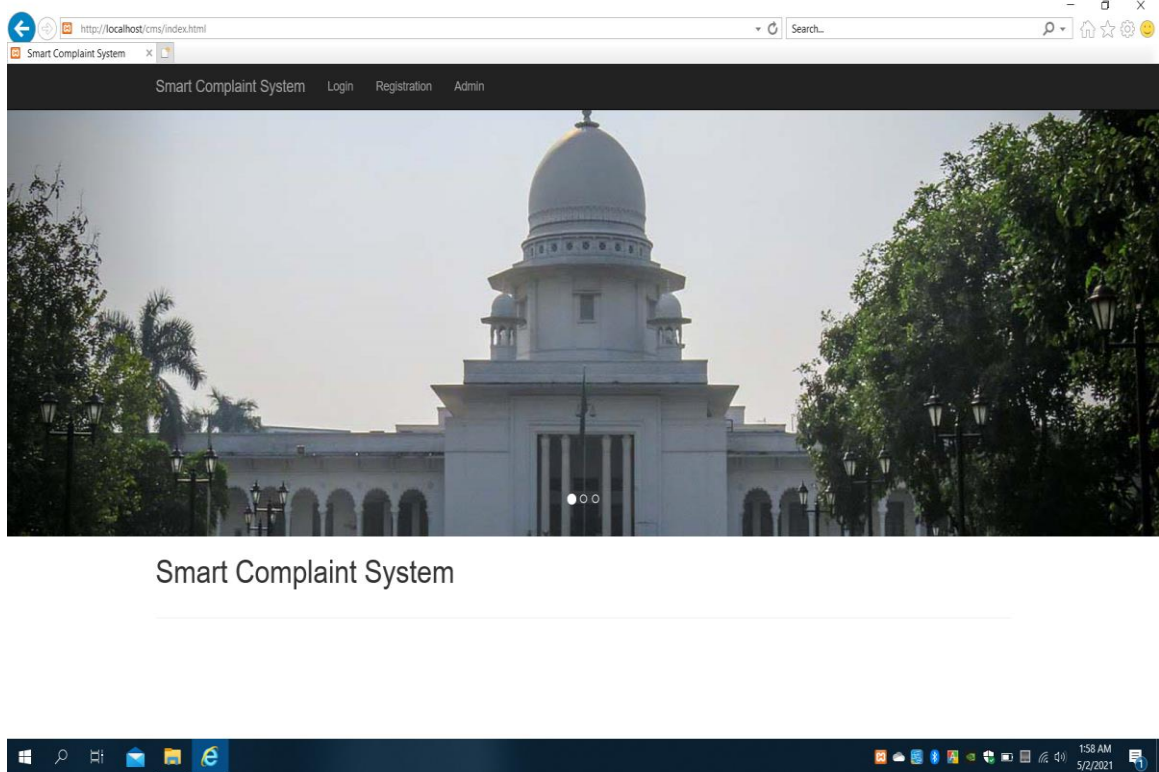


Figure 5.2.1: Home page

Figure 5.2.2 is the picture of our Registration page.

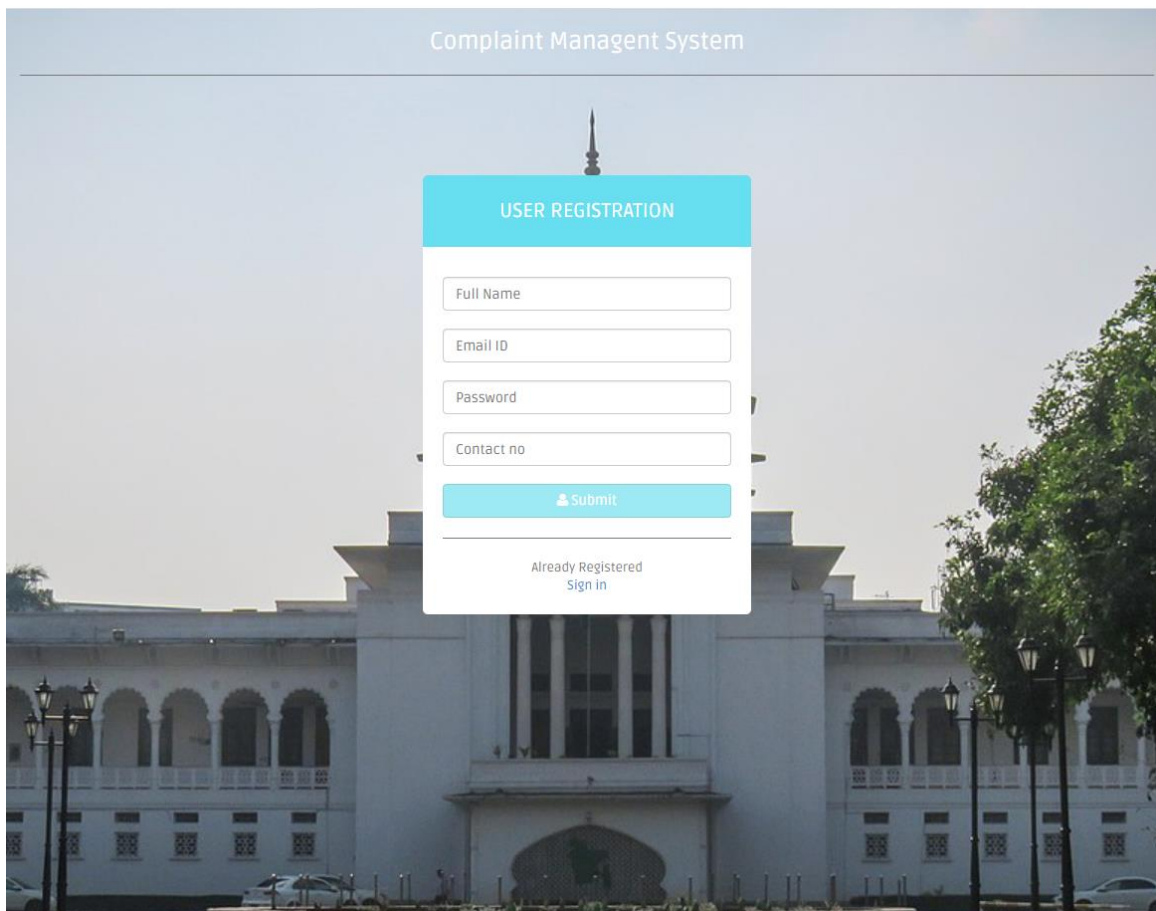


Figure 5.2.2: Registration page

In this Figure 5.2.3 it is the picture of our Log in page.

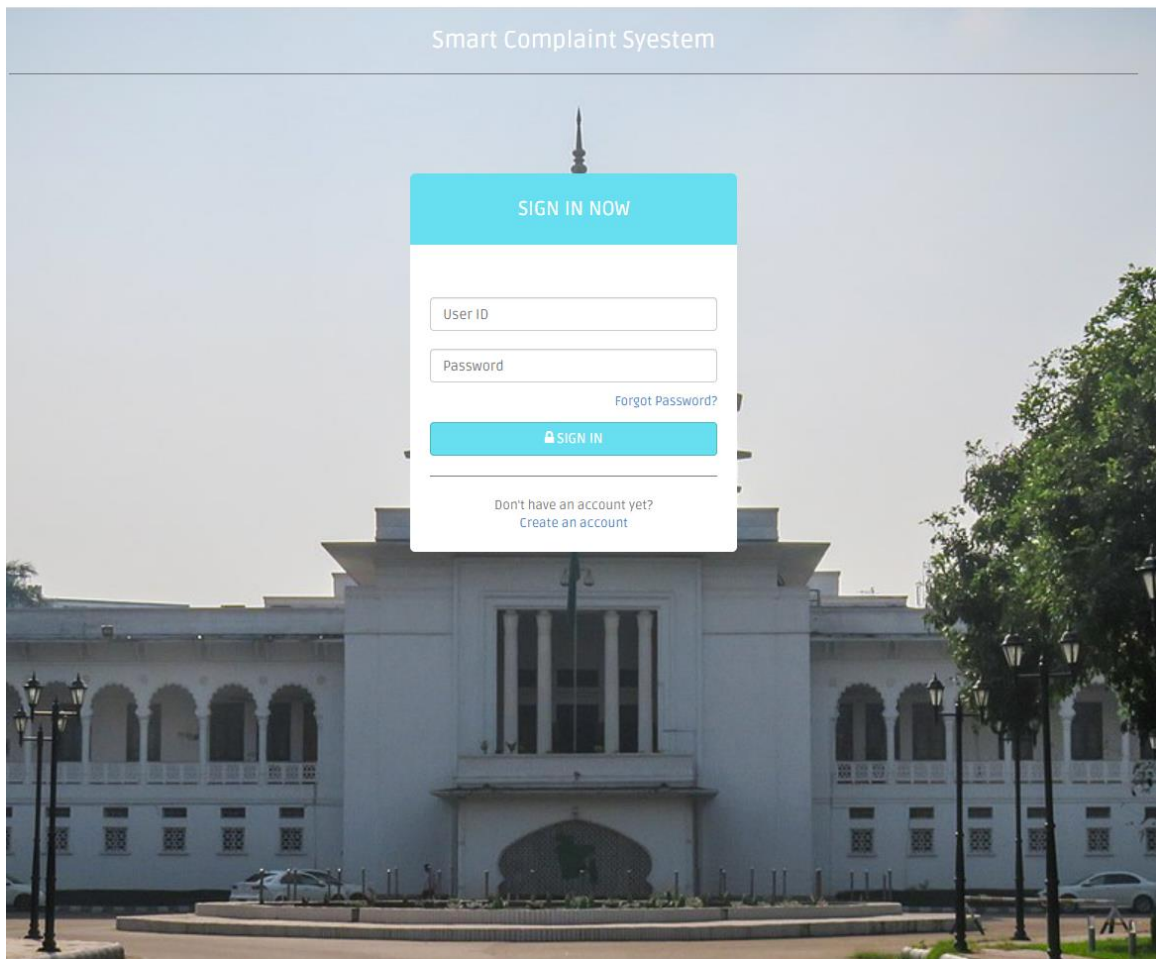
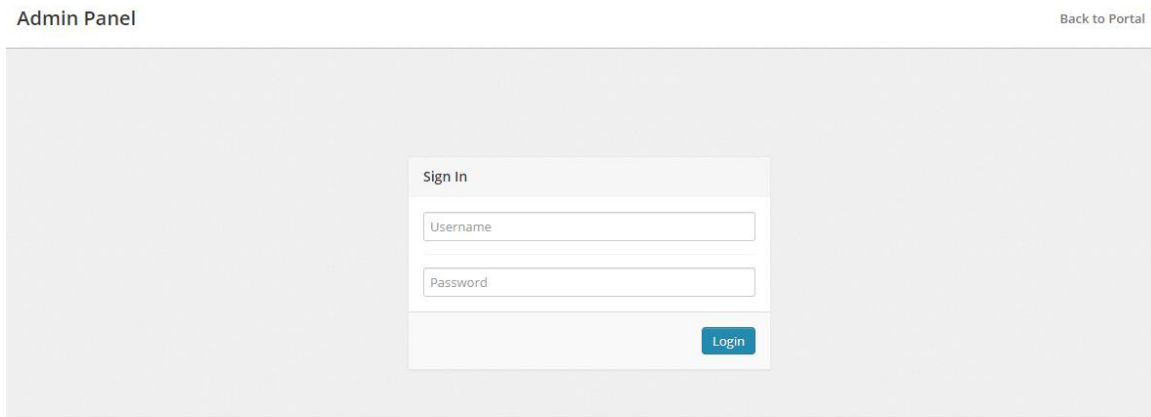


Figure 5.2.3: Log in Page

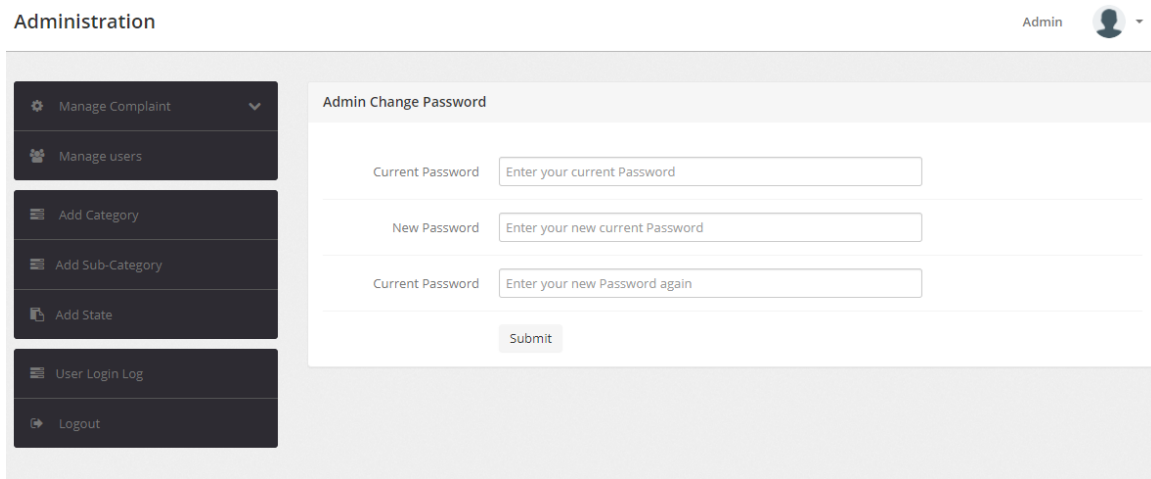
In this Figure 5.2.4 it is the picture of our admin Log in page.



The screenshot shows the 'Admin Panel' interface. In the top right corner, there is a link labeled 'Back to Portal'. The main content area features a 'Sign In' form with two input fields: 'Username' and 'Password'. A blue 'Login' button is positioned at the bottom right of the form.

Figure 5.2.4: Admin Sign in

In this Figure 5.2.5 it is the picture of our Admin Password change page.



The screenshot displays the 'Administration' section of the system. On the right side, there is a user profile indicator showing 'Admin' and a user icon. The main content area is titled 'Admin Change Password' and contains three input fields: 'Current Password' (with placeholder text 'Enter your current Password'), 'New Password' (with placeholder text 'Enter your new current Password'), and another 'Current Password' field (with placeholder text 'Enter your new Password again'). A 'Submit' button is located below the input fields. On the left side, there is a dark sidebar menu with the following options: 'Manage Complaint', 'Manage users', 'Add Category', 'Add Sub-Category', 'Add State', 'User Login Log', and 'Logout'.

Figure 5.2.5: Admin password change page

In this Figure 5.2.6 it is the picture of Complaint status page which are closed.

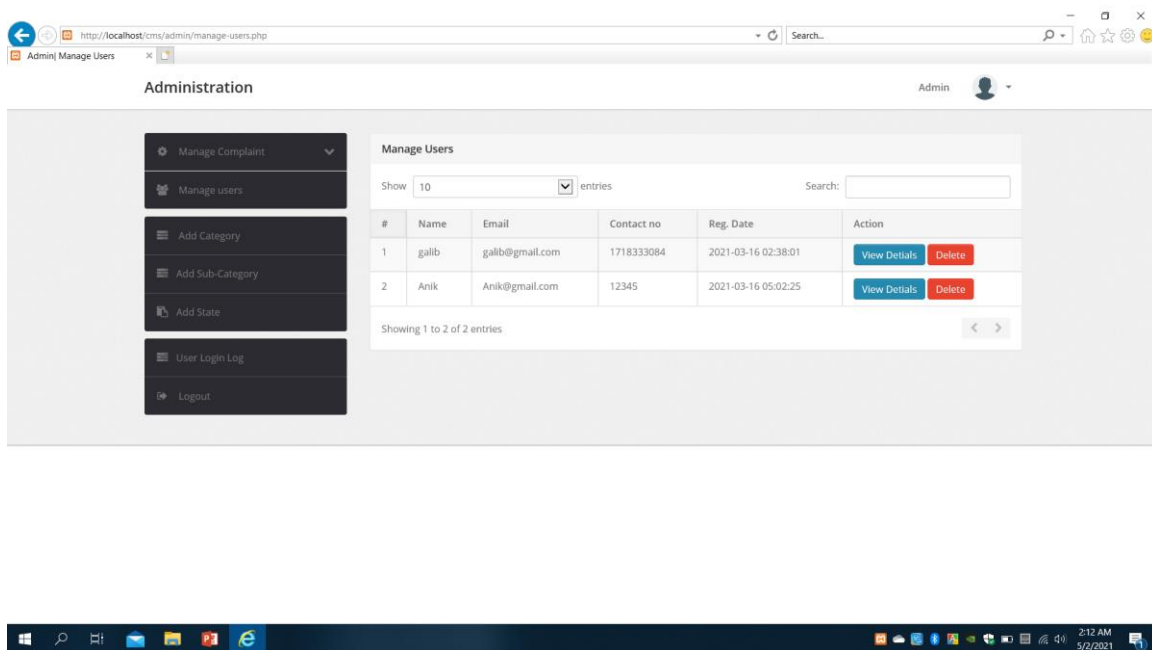


Figure 5.2.6: Complaint status page

In this Figure 5.2.7 it is the picture of Complaint status page which are not processed yet.

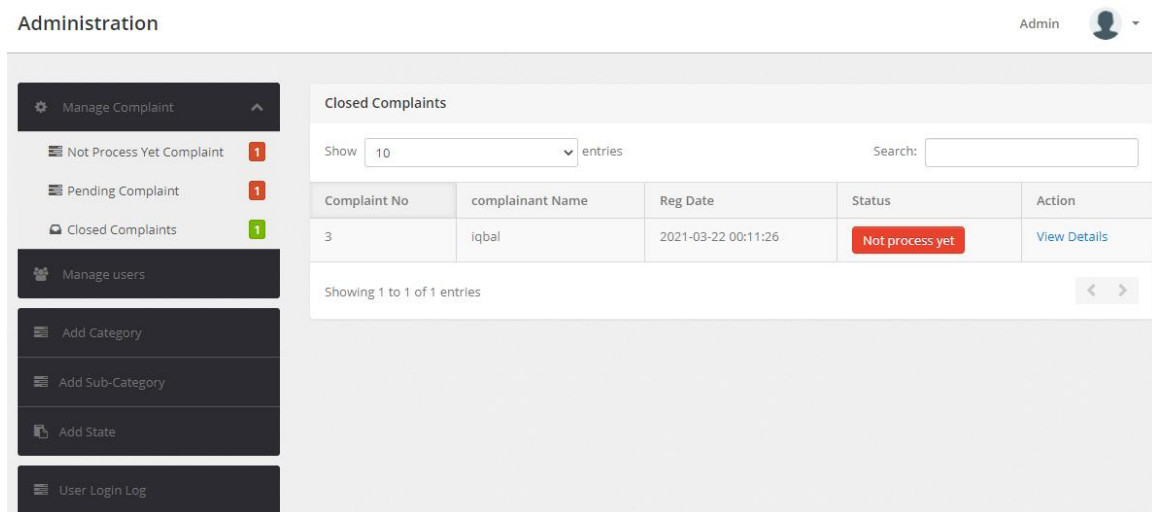


Figure 5.2.7: Not processed complaints

In this Figure 5.2.8 it is the picture of Complaint status page which are in process.

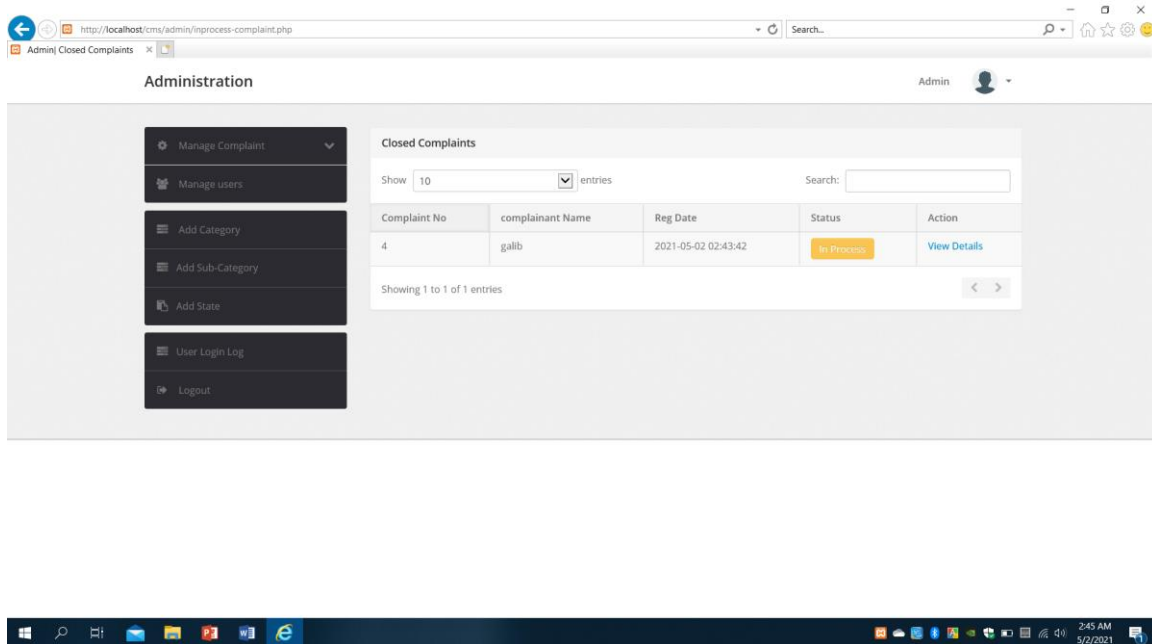


Figure 5.2.8: Pending complaints page

In this Figure 5.2.9 it is the picture of User dashboard page.

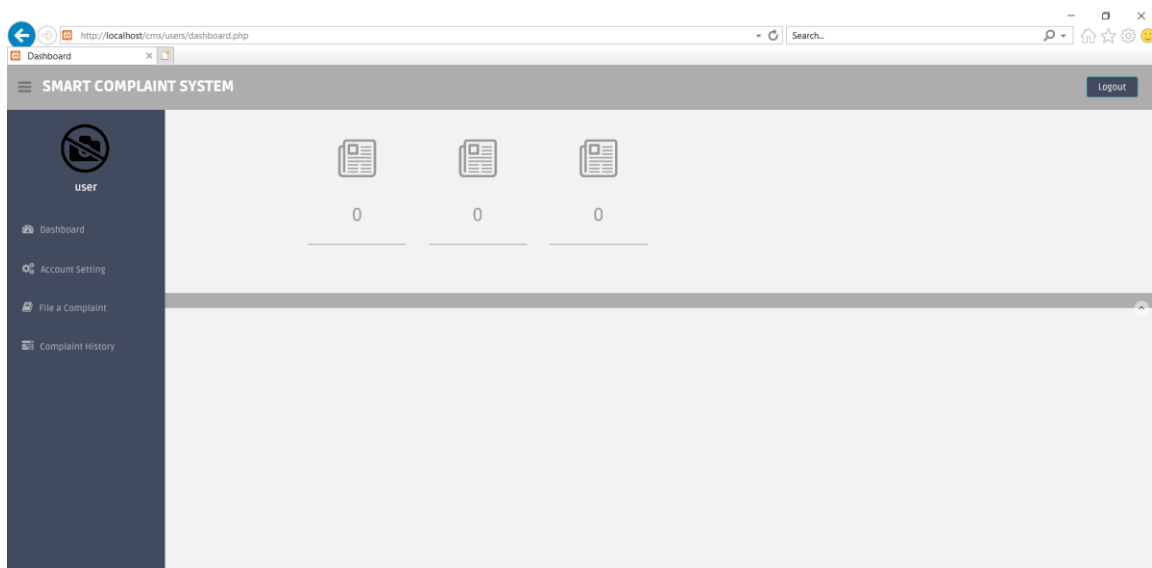


Figure 5.2.9: User dashboard page



In this Figure 5.2.10 it is the picture of User's Registering Complaints page.

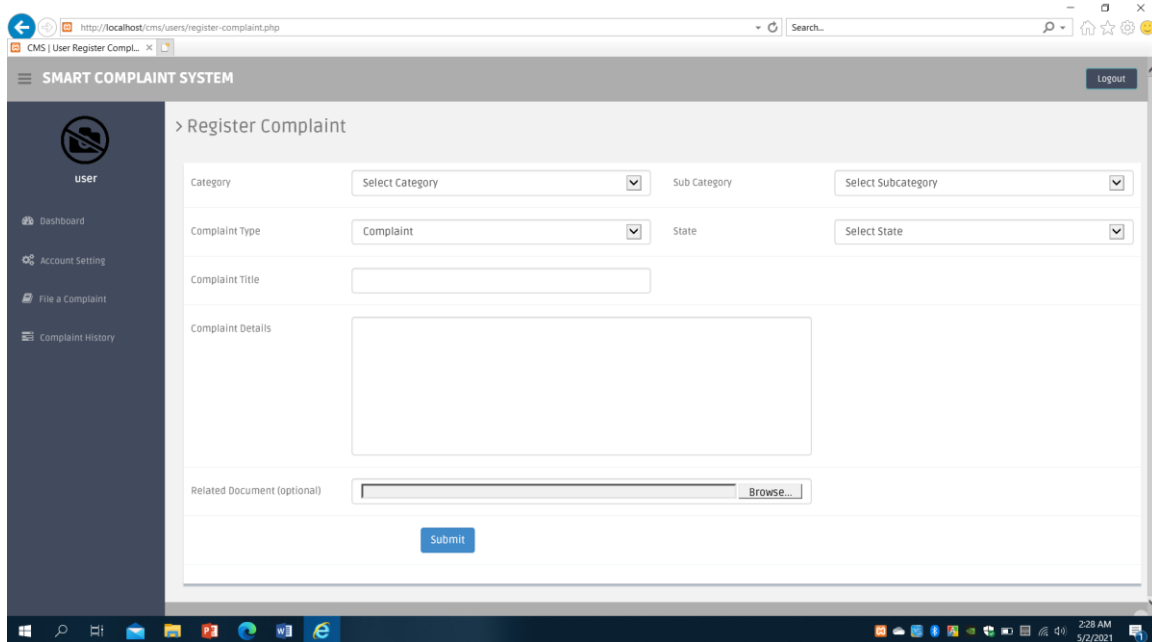


Figure 5.2.10: Registering complaints page

In this Figure 5.2.11 it is the picture of History of complaints page.

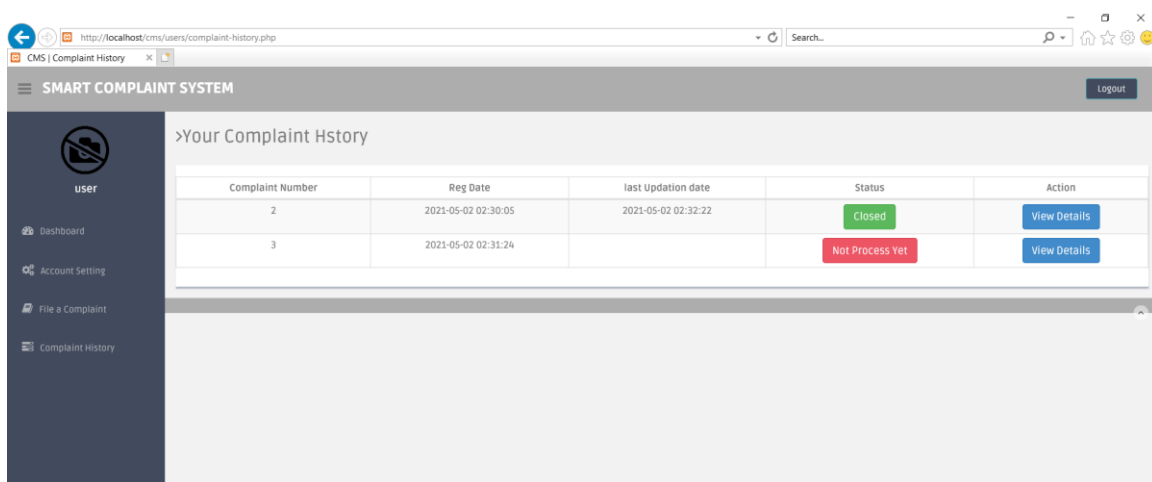


Figure 5.2.11: History of complaints page

In this Figure 5.2.12 it is the picture of what an admin can do or the functionalities for admin panel.

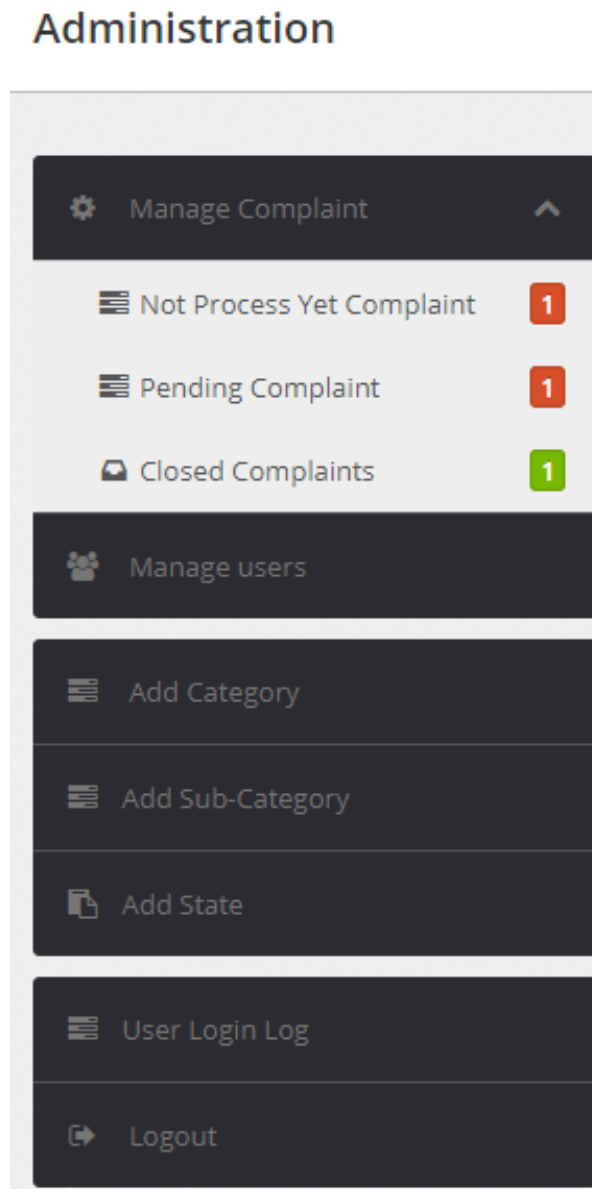


Figure 5.2.12: Admins accessed options

### **5.3 Implementation of Interactions**

Most imaginative work on a stage takes place here. Together, participants collect extra information and refine stage information on draft results. Interviews, meetings, prototyping, and electronic correspondence may be activities of this phase. All of these messages are not documented as minutes, records, monitored software, or official memoranda and are considered informal. The purpose is to inspire the communication process instead of inhibiting it. The process ends when the majority of participants agree that the work is significant and that it is time for formal review and comment to produce draft results.

### **5.4 Testing Implementation**

These tasks are performed if the systems are completed or tested in some management methodologies. Tests and assessments may be conducted simultaneously, but they are meaningfully distinct. Both are carried out in different ways. Prototyping is one of the most frequently used methods and one was conceived and introduced to some of the others in this particular project. For the way it worked originally, failures in some areas have been emphasized and rectified in the final prototype and were even reconsidered in addition to the instruments. The prototyping allowed other tests, like the usability test, to be performed. The prototype allows all tests, such as usability tests, to be performed, and allows random users to test the product. This test focuses on four main aspects: how precise locations are, the relevance of the content, the layout of the presentation and its results, and the key task rate, or how simple the users were to carry out their main tasks, with a correct password and the main task of this project being to successfully log in error-free of charge.

## **5.5 Test Case**

In test cases, the components used in the GUI form are checked whether or not they function accordingly. This is a way of ensuring that a form results properly. A test case is a set of conditions or variables by which a test tester determines whether a test system meets or functions appropriately. The test case process may also assist to discover difficulties in the specifications or design of an application.

## **5.6 Unit Test**

To check each system module works without or without a bug-free, a unit test is required. This also helps to determine whether a logical error exists in the module. During the development process, every module in the system is separately checked so that the test has been successfully covered.

## **5.7 Integration Test**

Integration tests are normally agreed to check if several modules work properly together. The resource allocation process is accompanied by many forms. It consists of 5 different shapes and each shape works parallel. The situation is the same as before in all procedures.

## **5.8 Test Results and Reports**

The test report must formally represent the test results, so that test results can be estimated quickly. The test results are recorded to record data obtained from organizational assessment studies, to classify the environment or operational circumstances, and to compare test results with targets. So, we will at the end achieve the results as the advantages of usability testing. The issue is then how to design the set of instances to make it accessible for user interface developers, since we have specified the general architecture for interaction objects. Interaction is practically everywhere in the real world. Interaction is the key to a dynamic and user-friendly system. It is really important to create an interactive system and we strive to do so. As already described, we have some distinctive features for our system to communicate.

## **CHAPTER 6**

### **Impact on Society, Environment, and Sustainability**

#### **6.1 Impact on Society**

The smart complaint system can improve society. The main concept is people can register and login in our website, then he or she can post complaints. Suppose if anyone sees any kind of illegal activity or any kind of incident is happening in society, people can give your complaint on our website and they can include photos. So that if anyone can share what happened with the photo this will be proof and he or she can be an eye witness of that case. By doing that the illegal activities and crime rate will decrease as our smart complaint system can prove their guilt. It will give a positive impact on society and the crime rate will be decreased. People can share their opinions and raise their voices against illegal activities. People can have their freedom of speech through our project.

#### **6.2 Impact on Environment**

As we are developing a website, so there will be no harmful effect on the environment. If used in hardware or any kind of physical thing that can harm the environment. But as if developing and creating a website so it has no physical issues. So the environment is safe and there is no impact on the environment for our project.

#### **6.3 Sustainability**

The sustainability of our project is still in development progress. We are still trying to handle a load of our website if a lot of user starts using the website should be more sustained and handle all the request and make it more stable. The complaints are monitored properly

by the admin panel and necessary steps will be taken by the administration person.

## **6.4 Ethical Aspect**

If we considered the ethical aspect of our project, we have an Admin panel that will monitor all the compliant posts relevant or not. We will have a strong team to investigate the validity of the crime will happen. And we will try to contact and take necessary steps so that Administration and government can take necessary steps to give the proper justice of the crimes. Admin panel will also monitor the photos that will be uploaded and they will also contact the user to know more details about the incidents which were occurred. So from the ethical aspects, we will try to keep the privacy of the user and solve the complaint with the necessary Steps from the administrations and the government.

## **CHAPTER 7**

### **Conclusion and Future Scope**

We mention our decision and conclusion in this section. Here we are discussing the future scope and how best it would have been.

#### **7.1 Discussion and Conclusion**

Finally, I would like to say that this Smart Complaint System fulfills its intent. It took an enormous task to finish this project. It has made a city company's complaint operational process the quickest. Receiving complaints through the use of this website would be smooth and effective. It gave the Smart Complaint Authority an enormous elevator. Everything you did manually was switched to the computer process entirely and this has allowed the SCS to operate faster. The spectrum of communication has now been extended to users. Since everything was done manually until now, it was turned into a computerized one. The processing of data has been more effective. The new system has given the Corporation in many ways numerical benefits. Some are listed below Conditions of insignificant red tape are almost cut. Data can be accessed and received in one click. The manipulation of data has been simplified and the cost factor eliminated. Data processing is quicker and more effective. It takes less time. More transparent is the operations. User communication is more effective.

#### **7.2 Scope for the Further Developments**

The system is much more user-friendly in the future. In the following, some future areas are discussed. If some modifications are made, the system will perform even better:

- New websites were developed in this study to facilitate and transparency for City Corporation professionals in their daily work.
- Another key objective of the request is to help to develop a better urban complaint system.

- To provide citizens and the public authority with an opportunity to communicate through those platforms, a website was developed for the study of a web-based.
- There are two major applications for the system, one being the system administrator and the other being the user using the system.
- City authorities may store their complaint information from any point, at any time via the Internet, and users may file any related complaint.
- In the short service cycles this web application aims to provide better problem-solving efficiency.
- This website is expected to be used by anyone. You can produce Web-based and access it worldwide.
- Users can currently only register by supplying basic information. The process of validation of the NIDs is added in the future. Validation of mobile numbers is added by transmitting 4 or 5 digits.
- No option is available to upload videos, on the other hand, to be added to improve the result.
- Post voting options may be available. The priority is given to the post receiving maximum votes from the user.
- New user application forms will be added since the city is home to many migrants. The only voters valid in this system will register through NID. This application form allows users to request their NIDs to be included in the system to be the system user.



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