A PROJECT REPORT ON

ONLINE GRIEVANCE REDRESSAL SYSTEM

By

AYSHATH RAHEEMA K (GK18CCSR01)

KHAIRUNNISSA (GK18CCSR02)

RAIMA PAULSON (GK18CCSR06)

MANU NARAYANAN (GK18CCSR11)

Project Report submitted to Department of Computer Science, Government College Kasaragod in partial fulfillment of the requirements for the award of Degree of BSc Computer Science

GOVERNMENT COLLEGE KASARAGOD

(Affiliated to KANNUR UNIVERSITY)

Vidyanagar, Kasaragod – 671123

DECLARATION

We hereby declare that the project work titled "**ONLINE GRIEVANCE REDRESSAL SYSTEM**" written and submitted by us is our original work. We also declare that this report has not been submitted to any other Universities or Institutions for the award of any fellowship, degree or diploma.

By,

AYSHATH RAHEEMA K

Reg No. GK18CCSR01

KHAIRUNNISSA

Reg No. GK18CCSR02

RAIMA PAULSON

Reg No. GK18CCSR06

MANU NARAYANAN

Reg No. GKI8CCSR11

GOVERNMENT COLLEGE KASARAGOD

(Affiliated to KANNUR UNIVERSITY)

Vidyanagar, Kasaragod – 671123

CERTIFICATE

This is to certify that the project "**ONLINE GRIEVANCE REDRESSAL SYSTEM**" submitted in partial fulfilment of the requirement of the degree of BSc Computer Science is a result of bonafide work carried out by "**AYSHATH RAHEEMA K, KHAIRUNNISSA, RAIMA PAULSON and MANU NARAYANAN"**, during the academic year 2020-2021.

Internal Project Guide

External Examiner

HEAD OF THE DEPARTMENT

1.

2.

ACKNOWLEDGEMENT

We are happy to submit our php project **ONLINE GRIEVANCE REDRESSAL SYSTEM,** which will be helpful to maintain a grievance. And the project gives basic functionality required for a grievance management**.** We take this opportunity to express our sincere gratitude to the people who has helped us in our attempt.

We wish to express our heartfelt thanks to our principal Dr. M Rema, our HoD Ms. Akhila P, Assistant Professor, Department of Computer Science and our project guide Mrs. Ayshath Thabsheera A P. We are extremely thankful to all the staffs of the Computer Science department for their kind co-operation and encouragement to make the project success.

Finally, we would like to thank the team faculty and our lab instructors who extended their helping hand in various occasions.

Sincerely,

AYSHATH RAHEEMA K [Reg No. GK18CCSR01]

KHAIRUNNISSA [Reg No. GK18CCSR02]

RAIMA PAULSON [Reg No. GK18CCSR06]

MANU NARAYANAN [Reg No. GK18CCSR11]

ABSTRACT

The project entitled "**ONLINE GRIEVANCE REDRESSAL SYSTEM**" is an online platform which allows reception and redressal of grievance by stakeholders of institution, enabling prompt actions on any issues raised by students thus allowing for better services.

Unlike conventional grievance redressal mode where complaints are addressed in the form of letters or application which is time consuming, the online website provides more robust as it successfully captures the true state of student satisfaction. Here the students can easily log in and submit their complaints. Evidence can also be provided if it is necessary in the form of file. After analyzing the complaint grievance administrator forward the complaint to concerned grievance cell member who deals with received grievance promptly and will take proper action. This system also provides the functionality of feedback mechanism, ask queries, request reinstate of complaints sections which uphold systems dignity by promoting cordial relationship between student and college authority. Grievance system helps to pursue quick action for solving the grievance, while maintaining affordability and ease of users.

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LIST OF ABBREVIATIONS

OS	Operating System
DFD	Data Flow Diagram
PHP	Hypertext Preprocessor
SQL	Structured Query Language
RAM	Random Access Memory
SRS	Software Requirement Specification
XAMPP	Cross-platform Apache MySQL PHP
HTML	Hyper Text Mark-Up Language
CSS	Cascading Style Sheets

1.INTRODUCTION

1.1 PROJECT OVERVIEW

ONLINE GRIEVANCE REDRESSAL SYSTEM is a website developed mainly to receive and act on grievances reported by students of the institution, enabling timely actions on issues raised by them. By establishing online grievance redressal mechanism, college authorities can take into account the performance of institution and ensure standards due to an online complaint box, manual effort and wastage of paper is limit. Students can submit complaint with necessary confidentiality. The goal of proposed system is to increase the efficiency and obtain a speedy resolution to the problem.

The project is based on 3 users, student, cell member, and admin. Student is mainly focused on submitting their grievance. Provide evidence if it's necessary, can also check the status & reply of the complaint, ask queries and provide feedback. In case of dissatisfaction of reply from cell member, student can request to reinstate the complaint. Cell member works on anonymous/non anonymous complaints effectively and updates status, reply, and query answers to the complainant and cell member can also reinstate or finalize with response according to the reason given by student and generate final report to the admin. Admin approve or deny the received complaints and has the right to view and remove cell member and student details. Admin is the one to whom grievances are send and can set the priority of the complaint and view the final report and monthly report of total grievances received. Thus, ONLINE GRIEVANCE REDRESSAL SYSTEM is an effective, efficient and interactive mechanism. 'Ask queries' section provided between cell member and student which upload its dignity by promoting cordial student-educator relationship with feedback form provided by the student regarding the response received from cell member.

1.2 PROJECT SCOPE

The ONLINE GRIEVANCE REDRESSAL SYSTEM is aiming at resolving the grievances of students with effective and quick response and gives satisfactory solution. The exhibited project will make the framework concentrated to speed up and student can check the status of their grievance. This is accessible for every student in the college and they will be provided with complaint id. ONLINE GRIEVANCE REDRESSAL SYSTEM is also a fair, independent and consistent system

which develop a response attitude among college authorities, thereby maintaining harmonious atmosphere in the campus.

1.3 PROJECT OBJECTIVES

The main objective of ONLINE GRIEVANCE REDRESSAL SYSTEM is to receive and act on complaints reported by students of the institution through online to get faster response and to take action within less time. This mechanism is to develop an organizational framework to provide an effective solution to students grievances thereby maintaining harmonious atmosphere in the college campus. The authority of institute tends to develop greater confidence in online grievance and feedback mechanism as they interact with students in confidential way. This mechanism reduces paperwork, human effort thus increasing accuracy and reliability.

It consists of three modules.

- Admin
- Cell member
- Student

Admin

- Admin Registration
- Admin Login
- Forgot password
- View, remove student & cell member details
- Approve/deny complaints
- Set complaint priority
- View monthly report
- View final report

Cell member

- Cell member registration
- Cell member login
- View anonymous/ non anonymous complaints
- Update complaint status & reply
- Add, view & delete Queries & answers
- View feedback
- View reinstate or finalize reinstate request
- Submit monthly report
- Submit final report

Student

- Student Registration
- Student Login
- Forgot Password
- Register Complaints anonymously / non anonymously
- View complaint details
- View status & reply
- Add queries & view answers
- Send feedback
- Request reinstates

2.SYSTEM ANALYSIS

2.1 EXISTING SYSTEM

The current system is dealing on manual basis. Students have to directly interact with college authority for registering their complaints. It needs huge amount of paper works to maintain the complaint details. A huge expenditure and lots of time is spent in the existing system. Tracking and retrieving of data from bulk of papers is a difficult process.

2.2 PROPOSED SYSTEM

The proposed system is ONLINE GRIEVANCE REDRESSAL SYSTEM which is an online website. This system is proposed to control and avoid the limitations of the existing system. The goal of proposed system is to increase the efficiency by speeding up the process and bringing down the work load. It also overcomes the huge expense that is obtained in the existing system.

The major activities of ONLINE GRIEVANCE REDRESSAL SYSTEM are to receive various types of grievance from students, providing speedy processing of grievance received, updating status of complaint, informing the students about the action taken and generating final report and monthly report to admin. The functionality such as feedback form and ask query section between cell member and complainant makes system more interactive. Student can even request to reinstate complaint if they are dissatisfied with reply from cellmember. Overall this project of ours being developed to help students in solving their problems in the best way possible and reduce the human efforts.

2.3 FEASIBILITY STUDY

A feasibility study is made to see if the project on completion will serve the purpose of the organization for the amount of work, effort and the time that is spend on it. Feasibility study lets the developer foresee the future of the project and its usefulness.

Feasibility study is a test of system proposed regarding its workability, impact on the organization, ability to meet the needs and effective use of resources. Thus, when a new project is proposed, it normally goes through a feasibility study before it is approved for development.

This document provides the feasibility of the project that is being designed and lists various areas that were considered very carefully during the feasibility study of this project such as technical, economical and behavioral feasibilities.

Investigating the existing system in the area under investigation does, to test the technical, social and economic feasibility of a system and generating ideas about the new system. There are three aspects in the feasibility study portion of the preliminary investigation.

- Technical Feasibility
- Economic Feasibility
- Operational Feasibility

The proposed system must be evaluated from a technical point of view first, and if technically feasible their impact on the organization must be assessed. If compatible, the operational system can be devised. Then they must be tested for economic feasibility.

2.3.1 TECHNICAL FEASIBILITY

The system must be evaluated from the technical point of view first. The assessment of this feasibility must be based on an outline design of the system requirement in the terms of input, output, programs, procedure and staff. Having identified an outline system, the investigation must go on to suggest the type of equipment, required method developing the system, method of running the system once it has been designed. The project should be developed such that the necessary functions and performance are achieved within the constraints. The project is developed with the latest technology.

Though the technology may become obsolete after some period of time, due to the fact that newer version of some software supports older version, the system may still be used. So there are only minimal constraints involved with this

project.

This system has been developed using **PHP.** Considering the various resources available at, the project is technically feasible for development.

2.3.2 ECONOMIC FEASIBILITY

The developing system must be justified by cost and benefit. Criteria to ensure that effort is concentrated on project, which will give best, return at the earliest. One of the factors, which affect the development of a new system, is the cost it would require. Since the system developed as part of project work, there is no manual cost to spend for the proposed system. Also, all the resources are already available, it gives an indication of the system is economically possible for development.

2.3.3 OPERATIONAL FEASIBILITY

Operational feasibility determines if the human resources are available to operate the system once it has been installed. The resources that are required to implement or install are already available with the organization. The persons of the organization need no exposure to computer but have to be trained to use this particular software. A few of them will be trained. Further, training is very less. The management will also be convinced that the project is optimally feasible.

3.SYSTEM CONFIGURATION

HARDWARE SPECIFICATION

Processor	: Intel Pentium
Clock speed	: 3.6GHZ
Mother board	: Intel 865gbf
DDRAM	: 946gz
HDD	: 60 GB, 7200 rpm

Monitor : 17” LCD monitor

Keyboard : standard 114 Key or
Microsoft Natural
ps/2 Keyboard

Mouse : logictec PS/2 Compatible mouse

SOFTWARE SPECIFICATION

Front End : PHP

Back End : My SQL

Operating System : Windows

3.1 OPERATING SYSTEM

An **operating system** (**OS**) is software, consisting of programs and data that runs on computers and manages computer hardware resources and provides common services for efficient execution of various application software.

For hardware functions such as input and output and memory allocation, the operating system acts as an intermediary between application programs and the computer hardware, although the application code is usually executed directly by the hardware and will frequently call the OS or be interrupted by it. Operating systems are found on almost any device that contains a computer—from cellular phones and video game consoles to supercomputers and web servers. Examples of popular modern operating systems for personal computers are Microsoft Windows, GNU/Linux, and Mac OS X.

Microsoft Windows is a series of software operating systems and graphical user interfaces produced by Microsoft. Microsoft first introduced an operating environment named *Windows* on November 20, 1985 as an add-on to MS-DOS in response to the growing interest in graphical user interfaces (GUIs). Microsoft Windows came to dominate the world's personal computer market, overtaking Mac OS, which had

been introduced in 1984. As of October 2009, Windows had approximately 91% of the market share of the client operating systems for usage on the Internet. The most recent client version of Windows is Windows 7; the most recent server version is Windows Server 2008 R2; the most recent mobile OS version is Windows Phone 7.

Microsoft has taken two separate approaches with the Windows operating system: one is suited for home users while the other is intended for the IT professional. The dual approach has resulted in home editions having more functionality in the way of multimedia support. However, Microsoft home-based operating systems tend to have less functionality in regard to security and networking. The professional versions for the server environment are limited in multimedia features but offer enhanced networking capability and security.

3.1.1WINDOWS OPERATING SYSTEMS FOR WEB HOSTING SERVERS

Microsoft offers the Windows 2000 Professional, Server and Advanced Server for web hosts. These come with the familiar Windows interface in which you can quickly and easily integrate Microsoft applications such as the famous web page editor FrontPage, databases. Over the years and with stiff competition, Microsoft has been able to resolve many problems such as security and stability that plagued the previous versions of its operating systems.

All Windows Operating systems for web hosting servers support the ASP (Active Server Pages) technology, Cold Fusion (in which you can quickly develop database applications) and Visual basic scripts. You can remotely administer Windows based web servers through GUI software such as PCAnywhere that allow you to log in your server's desktop. Unfortunately, there is no shell environment for managing and administering the Windows operating system. Windows based servers are a good choice for both shared and dedicated servers and, now, with .NET technology, they can be managed much better

3.2 SOFTWARE REQUIREMENT

3.2.1 MY SQL

My SQL Data base server is the world's most widely used open-source data base. Its ingenious software architecture makes it extremely fast and easy to customize. Extensive reuse of code of code within the software and minimalist approach to produce functionality rich features have resulted in DBMS unmatched in speed, compactness, stability and ease of deployment. The unique separation of the core server from the table handler makes it possible to run My SQL under strict transaction control or with ultrafast transaction less disk access, whichever most appropriate for the situations.

My SQL is a relational database management system (RDBMS) that runs a server providing multi-user access to a number of databases. My SQL is officially pronounced My S_Q_L but it also pronounced as My sequel. It is named after developer Michael Widiniu's daughter. The SQL phrase stands for structured query language.

My SQL development projects have made its source code available under the forms of the GNU General Public License, as well as under a variety of proprietary agreement. My SQL was owned and sponsored by a single for-profit firm. The Swedish company My SQL AB now owned by oracle co-operation. Free software projects that require a full featured dbms system often use My SQL where the project may lead to something in commercial use, the license term need careful study.

My SQL is a popular choice of database for use in web applications and is a central component of widely used LAMP web application software stack-LAMP is acronym for "Linux, Apache, My SQL, PHP/Python My SQL is used in some of the most frequently visited web sites on internet. It is written in C and C++.Its SQL parser is written in yacc. My SQL works on different system platforms including AIX, BSDi, Free BSD,HP- US,Microsoft Windows.NET BSD, Novell Netware etc.

Many programming languages with language APIs including libraries for accessing My SQL database. These include My SQL connector/Net for integration with Microsoft's visual studio (Languages such as C and VB are most commonly used) and the ODBC driver for java. In addition, an ODBC interface called My ODBC allows

additional programming languages that support ODBC interface to communicate with My SQL database, such as ASP or Cold fusion.

FEATURES

- A broad subset of ANSI SQL 99 as well as extensions.
- Cross platform support.
- Stored procedures.
- Triggers.
- Cursors.
- Updatable views.
- True varchar support.
- Information schema.
- Strict mode.
- X/open XA distributed transaction processing (DTP) support.
- Independent storage engines.
- SSL support.
- Query caching.
- Replication support with one master per slave, many slaves per master, no automatic support for multiple masters per slave.
- Embedded DB library.
- Partial Unicode support.
- Partial acid compliances.
- Shared nothing clustering through My SQL cluster.

3.2.2 HTML

Html which stands for Hypertext Markup Language, is the predominant markup language for web pages. HTML is the basic building-blocks of Web Pages. A markup language is a set of markup tags, and HTML uses markup tags to describe web pages. HTML is written in the form of HTML elements consisting of tags,

enclosed in angle brackets (like <html>), within the web page content. HTML tags normally come in pairs like <h1> and </h1>. The first tag in a pair is the start tag, the second tag is the end tag (they are also called opening tags and closing tags).

The purpose of a web browser is to read HTML documents and compose them into visual or audible web pages. The browser does not display the HTML tags, but uses the tags to interpret the content of the page.

HTML elements form the building blocks of all websites. HTML allows images and objects to be embedded and can be used to create interactive forms. It provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. It can embed scripts in languages such as JavaScript which affect the behavior of HTML Web Pages.

Web browsers can also refer to Cascading Style Sheets (CSS) to define the appearance and layout of text and other material. The W3C, maintainer of both the HTML and the CSS standards, encourages the use of CSS over explicitly presentational HTML markup.

An HTML element is an individual component of an HTML document. HTML documents are composed of a tree of HTML elements and other nodes, such as text nodes. Each element can have attributes specified. Elements can also have content, including other elements and text. HTML elements represent semantics, or meaning. For example, the title element represents the title of the document.

In the HTML syntax, most elements are written with a start tag and an end tag, with the content in between. Tags are composed of the name of the element, surrounded by angle brackets. An end tag also has a slash after the opening angle bracket to distinguish it from the start tag. For example, a paragraph, which is represented by the p element, would be written as in the HTML syntax, most elements are written ...

3.2.3 XAMPP

XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages

Since most actual web server deployments use the same components as XAMPP, it makes transitioning from a local test server to a live server possible.

XAMPP's case of deployment means a WAMP or LAMP stack can be installed quickly and simply on an operating system by a developer. With the advantage a number of common add-in applications such as Wordpress and Joomla! Can also be installed with similar ease using Bitnami.

3.2.4 DBMS

A Data Base Management System is a set of computer programs that controls the creation, maintenance and the use of a database. It allows organizations to place control of database development in the hands of Database administrator and other specialists.

A DBMS is a system software package that helps the use of integrated collection of data records and files known as databases. It allows different user application programs to easily access the same database.

DBMS may use any of a variety of data model, such as network model or relational model. In large systems, a dbms allows users and other software to store retrieve data in a structured way. Instead of having to write computer programs to extract information's user can ask simple questions in a query language. Thus many DBMS packages provide 4th generation programming languages (4GLs) and other application development features. It helps to specify the logical organization for DB and use the information with in a DB.

3.3 SCRIPTING LANGUAGE

3.3.1 JAVASCRIPT

JavaScript is an implementation of the ECMAScript language standard and is typically used to enable programmatic access to computational objects within a host environment. It can be characterized as a prototype-based object- oriented scripting language that is dynamic, weakly typed and has first-class functions. It is also considered a functional programming language like Scheme and OCaml because it has closures and supports higher-order functions.[JavaScript is primarily used in the form of client-side JavaScript, implemented as part of a web browser in order to provide

enhanced user interfaces and dynamic websites. However, its use in applications outside web pages—for example in PDF-documents, site-specific browsers and desktop widgets—is also significant.

JavaScript uses syntax influenced by that of C. JavaScript copies many names and naming conventions from Java, but the two languages are otherwise unrelated and have very different semantics. The key design principles within JavaScript are taken from the Self and Scheme programming languages.

The primary use of JavaScript is to write functions that are embedded in or included from HTML pages and that interact with the Document Object Model (DOM) of the page. Some simple examples of this usage are:

Opening or popping up a new window with programmatic control over the size, position, and attributes of the new window (e.g. whether the menus, toolbars, etc. are visible).

Validating input values of a web form to make sure that they are acceptable before being submitted to the server. Changing images as the mouse cursor moves over them: This effect is often used to draw the user's attention to important links displayed as graphical elements.

Because JavaScript code can run locally in a user's browser (rather than on a remote server), the browser can respond to user actions quickly, making an application more responsive. Furthermore, JavaScript code can detect user actions which HTML alone cannot, such as individual keystrokes. Applications such as Gmail take advantage of this: much of the user-interface logic is written in JavaScript, and JavaScript dispatches requests for information (such as the content of an e-mail message) to the server. The wider trend of Ajax programming similarly exploits this strength.

3.3.2 PHP: HYPERTEXT PREPROCESSOR SCRIPTING LANGUAGE

PHP: Hypertext Preprocessor (a recursive acronym, originally *personal home page*) is a general-purpose scripting language that was originally designed for web development to produce dynamic web pages. For this purpose, PHP code is embedded into the HTML source document and interpreted by a web server

with a PHP processor module, which generates the web page document. As a general-purpose programming language PHP code is processed by an interpreter application in command- line mode performing desired operating system operations and producing program output on its standard output channel. It may also function as a graphical application. PHP is available as a processor for most modern web servers and as a standalone interpreter on most operating systems and computing platforms.

PHP was originally created by Rasmus Lerdorf in 1995 and has been in continuous development ever since. The main implementation of PHP is now produced by the PHP Group and serves as the *de facto* standard for PHP as there is no formal specification PHP is free software released under the PHP License

3.3.3 CSS: CASCADING STYLE SHEETS

CSS stands for Cascading Style Sheets.CSS describes how HTML elements are to be displayed on screen, paper, or in other media.CSS saves a lot of work. It can control the layout of multiple web pages all at once.

CSS can be added to HTML elements in 3 ways:

- Inline – by using the style attribute in HTML elements
- Internal – by using a <style> element in the <head> section
- External – by using an external CSS file

The most common way to add CSS, is to keep the styles in separate CSS files. However, here we will use inline and internal styling, because this is easier to demonstrate, and easier for you to try it yourself.

4. REQUIREMENT ANALYSIS

4.1 PROBLEM DEFINITION

The existing system is manual based and consume enough time. In the existing system huge amount of paper works needed to maintain complaint details and is also a long

procedure. Tracking and retrieving of data from bulk of papers is a difficult process. Feedback mechanism is not provided in some existing grievance redressal system which makes the system noninteractive.

4.2 REQUIRMENT SPECIFICATION

4.2.1 PRELIMINARY STUDY

Preliminary study is the process of gathering and interpreting facts, using the information for further studies on the system. It is a problem solving activity that requires intensive communication between system users and system developers. It does various feasibility studies. In these studies, a rough figure of the system activity can be obtained, from which the decision about the strategies to be followed for effective system study and analysis can be taken. Preliminary study also identifies the method collection to be followed.

As the preliminary study was conducted an initial picture about the system working was obtained. From the information received from the study, data collection methods are identified even in the first investigation itself, the drawback of the existing system could be identified.

4.2.2 REQUIREMENT GATHERING AND ANALYSIS

The analyst starts the requirements gathering analysis activity by collecting all information from the user, which could be used to develop the requirements of the system. He then analyses the collected information to obtain and thorough understanding of the product to be developed, with a view of removing all ambiguities and inconsistencies from the initial user perception of the problem.

4.2.3 REQUIREMENT GATHERING

This activity typically involves interviewing the end users and studying the existing documents to collect all possible information regarding the system. If the project involves: automating some existing procedure, the task of the system analysis to be comes a little easier as we can immediately obtain the input to the output data formats and the details

of the operational data procedures

4.2.4 ANALYSIS OF THE GATHERED REQUIREMENTS

The main purpose of this activity is to clearly understand the exact requirements of the user. The following basic; questions pertaining to the project should be clearly understood by the analyst in order to obtain a good grasp of the problem;

- What is the problem?
- Why is it important to solve the problem?
- What are the possible solutions of the problem?
- What are the likely complexities that might arise while solving the problem?
- If there is external software or hardware with which the developed software has to interface, then what exactly would the data interchange formats with the external system be?

- After the analyst has understood the exact customer requirements, he proceeds to identify and resolve the various requirement problems. The most important requirement problem that be analyst has to identify and eliminate is the problem of anomalies, inconsistencies and incompleteness.

4.2.5 SOFTWARE REQUIREMENT SPECIFICATION (SRS)

After the analyst has collected all the required information regarding the software to be developed, and has removed all completeness, inconsistencies and anomalies from the specification I start to systematically organize the requirements in the form of an SRS document. The SRS document usually contains all the user requirements in an informal form.

Among all the documents produced during a software development life cycle-writing SRS document is probably the toughest. One reason behind this difficulty is that the SRS document is expected to cater to the needs of a wide variety of audience. Different people need the SRS document and their needs are as follows: users: The goal of set of audience is to ensure that the system has described in the SRS document will cater to their needs.

Software developers: The software developers refer to die SRS document to make sure that they develop exactly what they develop exactly what the customer requires.

User Documentation Writers: their goal in reading the SRS document is to ensure that they understand well enough to be able to write the user manuals.

Project Manager: They want to ensure that they can estimate the cost easily by referring to the SRS document and that it contains all the information required planning the project well.

An SRS document should clearly specify

- Functional requirements
- Non-functional requirements
- Goals of implementation

5. SYSTEM DESIGN

System design is the second phase of the software life cycle. The system goes through logical and physical state of development. The user oriented performance specification is extended into a design specification, while designing the needed system. The design phase begins when the requirement specification document for the software development is available. When the requirement specification activity is entirely in the problem domain, design is the first step to move from the problem domain to the solution domain. Designing is the process of bridging the gap between requirement specification and the final solution for satisfying the requirement.

5.1 INPUT DESIGN

Input design is the process of converting a user oriented description of the inputs to a computer based business system into a programmer oriented specification. The design decision for handling input specify how data are accepted for computer processing. Input design is a part of overall design that need careful attention. The collection of input data is considered to be the most expensive part of the system design. Since the inputs have to be planned in such a way so as to get the relevant information, extreme care is taken to obtain the pertinent information. If the data going

into the system is incorrect then the processing and output will magnify these errors. The goal of designing input data is to make data entry as easy, logical and free from errors as possible. The following are the objectives of input design:

- To produce a cost effective method of input
- To ensure validation

Effort has been made to ensure that input data remains accurate from the stage at which it is recorded and documented to the stage at which it is accepted by the computer. Validation procedures are also present to detect errors in data input, which is beyond control procedures. Validation procedures are designed to check each record, data item or field against certain criteria.

The input design is the link between the information system and the user. It comprises developing specifications and procedures for data preparation and those steps that are necessary to put input data into a usable form for processing entry. The design of input focuses on controlling the amount of inputs required, controlling errors, avoiding delay, avoiding extra steps and keeping the process simple.

5.2 OUTPUT DESIGN

The output design phase of the system design is concerned with the conveyance of information to the end users in user friendly manner. The output design should be efficient, intelligible so that the system relationship with the end user is improved and thereby enhancing the process of decision making. The output design is an ongoing activity almost from the beginning of the project, efficient and well defined output design improves the relation of the system and the user. The primary considerations in the design of the output are the requirement of the information and the objective of the end user.

The system output may be of any of the following

- A report
- A document
- A message

The output design specification is made in such a way that it is unambiguous

and comprehensive. The approach to output design is very dependent on the type of output and nature of data. Special attention has to be made to data editing. The choice of appropriate output medium is also an important task. The output designed must be specified and documented, data items have to be accurately defined and arranged for clarity.

The layout of the output will be normally specified on a layout chart. The final design layout must be approved by the user, communicated in detailed to the programmer. The user's requirements are quite different from that of the programmer. Before preparing a specification for the programmer, it is prudent to ensure that the design is acceptable to the user. The output design specification is made in such a way that it is unambiguous, comprehensive and capable of being translated into a programming language.

5.3 ARCHITECTURAL DESIGN

5.3.1 DATA FLOW DIAGRAM

The data flow diagram is a graphical tool to describe the movement of data through the system with the help of various levels in a crystal clear way. The data flow can be between processes in and out of data sources.
The DFD serves two purposes:

- To provide an indication of flow data are transformed as they move through the system.
- To depict the functions that transforms the data flow.

It provides additional information that is used during the analysis of the information domain and serves as a basis for the modeling function. The DFD is also known as a Data Flow Graph or Bubble Chart.

The DFD may be also used to represent a system or software at any level of abstraction. In fact, DFD may be partitioned into levels that represent increasing information flow and functions details. Therefore the DFD provides a mechanism for functional modeling as well as information flow modeling.

A level 0 DFD also called a fundamental system model or a context model represents the entire software element as a single bubble with input and output data indicated incoming and outgoing arrows, respectively. Additional processes (bubbles) and information flow paths are represented as the level 0 DFD is partitioned into reveal more Interconnecting arrows. Each of the processes represented at level 1 is sub function of the overall systems depicted in the context model.

The basic notation used to create a DFD makes it easy to analyze and understand. The DFD is a graphical tool that can be very valuable during software requirement analysis.

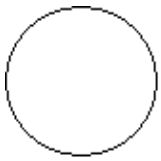
The basic elements of DFD are

Bubbles : Used to represent functions

Arrows : Used to represent data flow

Rectangle : Used to represent external entities

Option box : Used to represent data store



Process

External Entity

Data Flow

Data Store

PROCESS:

Specifies the transformation that is applied to the input to produce output.

EXTERNAL ENTITY:

This represents any outside agency, which interacts with the system. Usually this is an element, from that the system inputs come or to which the system outputs go. A common example of external entity is person or a group of persons.

DATA FLOW:

This represents the flow of data between two processes or between a process and an external entity or between a process and a data store.

LEVEL 0

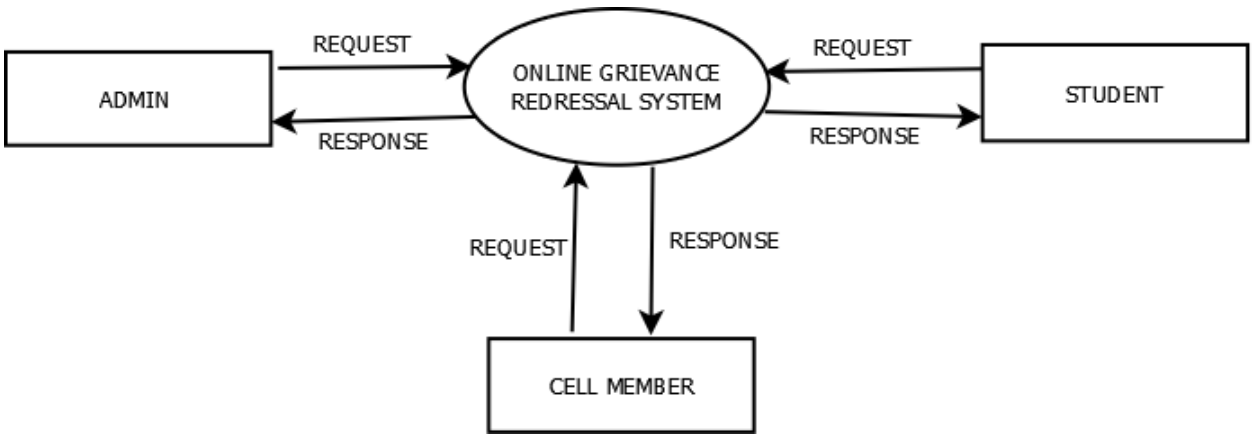


Figure 5.3.1.1 DFD for level 0

LEVEL 1 FOR ADMIN

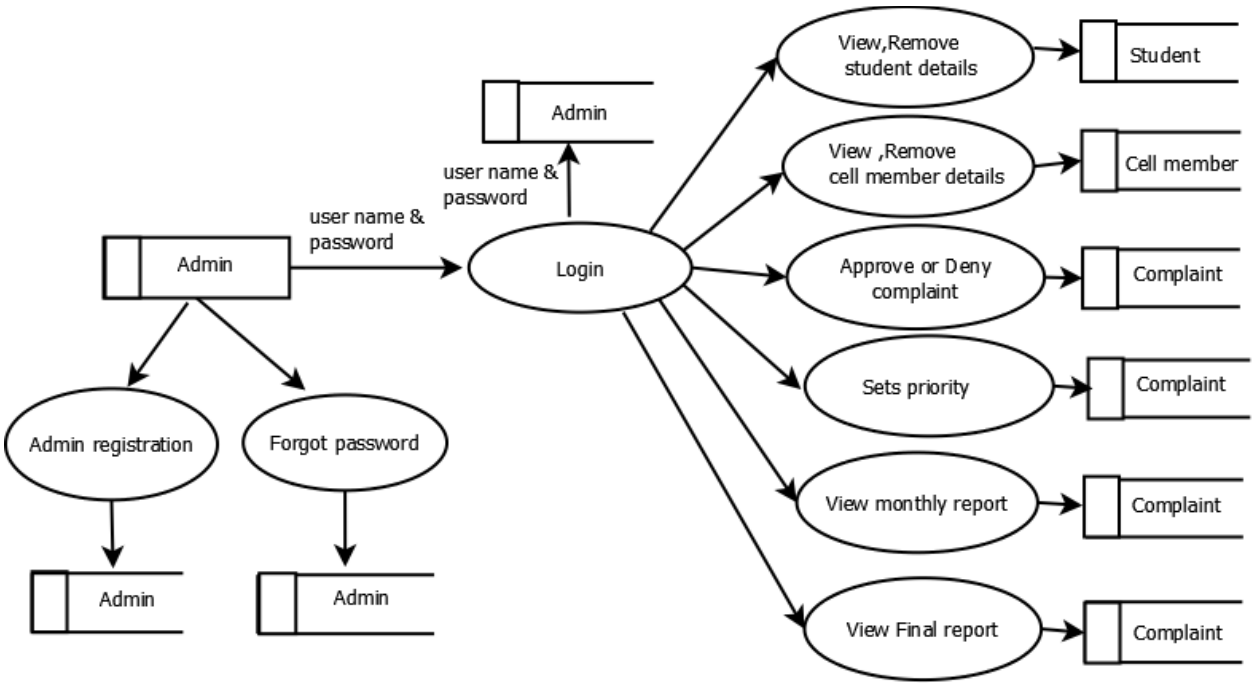


Figure 5.3.1.2 DFD for level 1

LEVEL 1 FOR CELLMEMBER

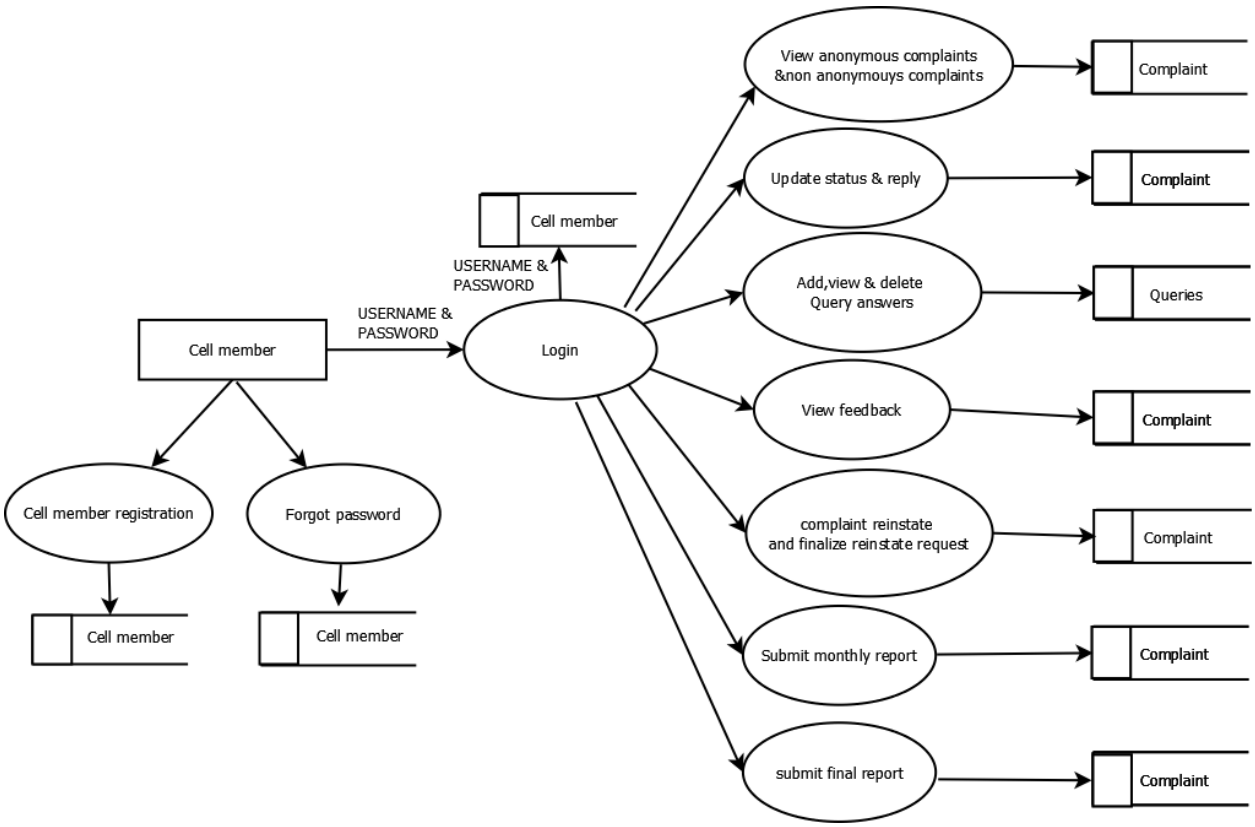


Figure 5.3.1.3 DFD for level 1

LEVEL 1 FOR STUDENT

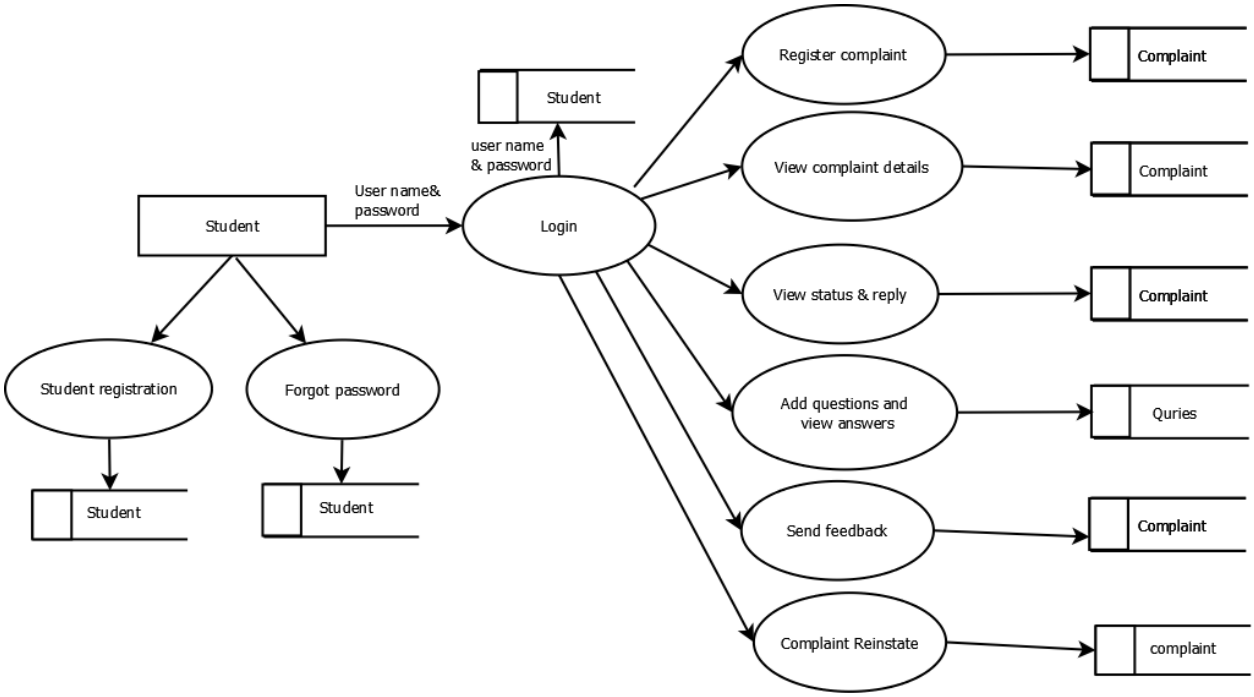


Figure 5.3.1.4 DFD for level 1

5.3.2 DATABASE DESIGN

5.3.2.1:ADMIN

Primary key- adminid

Column Name	Data Type
Adminid	Varchar
Aname	Varchar
Email	Varchar
Password	Varchar

5.3.2.2:CELLMEMBER

Primary key- userid

Column Name	Data Type
Userid	Varchar
Cname	Varchar
Des	Text
Email	Varchar
Password	Varchar
Phone	Int

5.3.2.3:STUDENT

Primary key- admno

Column Name	Data Type
Admno	Varchar
Sname	Varchar
Address	Text
Course	Text
Email	Varchar

Password	Varchar
Phone	Varchar

5.3.2.4:COMPLAINT

Primary key- cmpid

Column Name	**Data Type**
Cmpid	Int
Admno	Int
Cdetails	Text
Ctype	Text
Date	Timestamp
Feedback	Text
Name	Varchar
Priority	Text
Remark	Text
Report	Text
Status	Varchar
Type	Text
Image	Longblob
Imgtype	Varchar

5.3.2.5:QUERIES

Primary key- qid

Column Name	**DataType**
Qid	Int
Question	Text
Answer	Text
Admno	Int
Visible	Varchar

5.3.2.6:REPORT

Primary key- reportid

Column Name	**DataType**
Reportid	Int
Month	Varchar
Year	Varchar
Details	Text

6. SYSTEM TESTING

The most difficult part of the project was testing. After coding of each module, the application had to send to the mobile for its verification. By analyzing the performance, I should correct and modify the code, at necessary stages. Thus testing was done in each phases and it was necessary, because start of the next phase was depending upon the performance of the previous stages. Each module was then tested independently.

Software testing is a process of executing program within the intent of finding an error. Software testing is a critical element of software quality assurance

and represents the ultimate review of system specification, design, coding. Testing is last chance to uncover the error defects in the software and facilities delivery of quality system.

Need for Testing:

Testing was essential for the following reasons:

- Existence of program defects of inadequacies.
- The software behavior as indented by its designer.
- Conformance with requirement specification/user needs.
- Assess the operational reliability of the system.
- Reflect the frequency of actual user inputs.
- Checks for detect flows and deficiency in the requirements.
- Check whether the software is operationally useful.
- Test the system capabilities.
- Check whether or not the program is useable in practice.

6.1 UNIT TESTING

System security refers to the technical innovations and procedure applied to the hardware and operating system to product against deliberate or accidental damage. Data security refers to the protection of data from loss, disclosure, modification and distraction.

Privacy defines the rights of the users or organization to determine what information they willing to share with others and protect the information to minimize the possible invasion of privacy to achieve all the above objectives.

6.2 INTEGRATION TESTING

System integrity refers to the proper functioning of hardware and software, appropriate physical security and safety against external threats like wiretapping. Data integrity makes sure that data do not differ from their original form.

In this, many unit-tested modules are combined into subsystems, which are then tested. The goal here is to see if the modules can be integrated properly. Hence, the emphasis is on testing the interfaces between the modules. This testing activity

can be considered testing the design.

When the modules are linked together, they should work properly apart from working individually. This is often referred as interfacing. Data loss may occur at the time of interfacing. This should be carefully avoided because this will affect the other modules also. Integration testing is systematic technique for constructing the program linkage while conducting tests at the same time to uncover errors associated with that interface. The tests were carried out each time a module was linked. Thus errors were easy to isolate.

6.3 SYSTEM TESTING

After the integration testing gets over the system has a whole is tested for validation. Here the testing is done by a complete tour of all the modules in a sequence.

In case of further development of the system in the future, the programmer has to know the logic involved. Documents to a programmer are like Road map to a traveler on the move.

Having the above facts in mind, a lot of care was taken in documenting at every stage of the project.

6.4 PERFORMANCE TESTING

The system is very much user friendly and has a good user interface. This has been tested. Every user who needs to access this system is given an user id and password and no one else can access. This too has been tested. It has been tested whether the loading of the screens of the application is fast and the migration from one form to another took less time. The time taken for this had been calculated. The application is designed in such a way that it occupies less memory space; the database is also designed in such a way that it avoids duplication of records- that is the database avoids redundancy in all possible ways.

Redundancy in storing the same data multiple times leads to several problems. Due to this storage place is also wasted. The files that represent the same data may be inconsistent. All these problems are looked after and rectified for efficient execution of

the application.

6.5 VALIDATION TESTING

Here in this validation testing, all the values entered in each and every module are tested for correctness and validation as it has been entered before updating to the back end system. Validation testing is done to ensure complete assembly can be termed successful only if it functions in manner that is reasonably expected by the clients.

6.6 MODULE TESTING

Each individual program module is tested for any possible errors. They were also tested for specifications that are to see whether they are working as per what the program should do and how it should perform under various conditions.

7. IMPLEMENTATION

System implementation is the conversion of new system into an operating one which involves creating compatible files, training staff and installing hardware. A critical factoring in conversion is not disrupting the functioning of organization. User training is crucial for minimizing resistance to change and giving chance to prove its worth. Training aids user friendly manuals and healthy screens provide the user with a good start. Software maintenance follows conversion to the extent that changes are necessary to maintain satisfactory operations relative to changes in the user's environment. Maintenance often includes minor enhancements or corrections to the problem that surface late in the systems operations. In the implementation phase, the team builds the components either from scratch or by composition. Given the architecture document from the design phase and the requirement document from the analysis phase, the team should build exactly what has been requested, though there is still room for innovation and flexibility. For example, a component may be narrowly designed for this particular system, or the component may be made more general to satisfy a reusability guideline. The architecture document should give guidance.

Sometimes, this guidance is found in the requirement document. The implementation phase deals with issues of quality, performance, baselines, libraries, and debugging.

The end deliverable is the product itself. During the implementation phase, the system is built according to the specifications from the previous phases. This includes writing code, performing code reviews, performing tests, selecting components for integration, configuration, and integration.

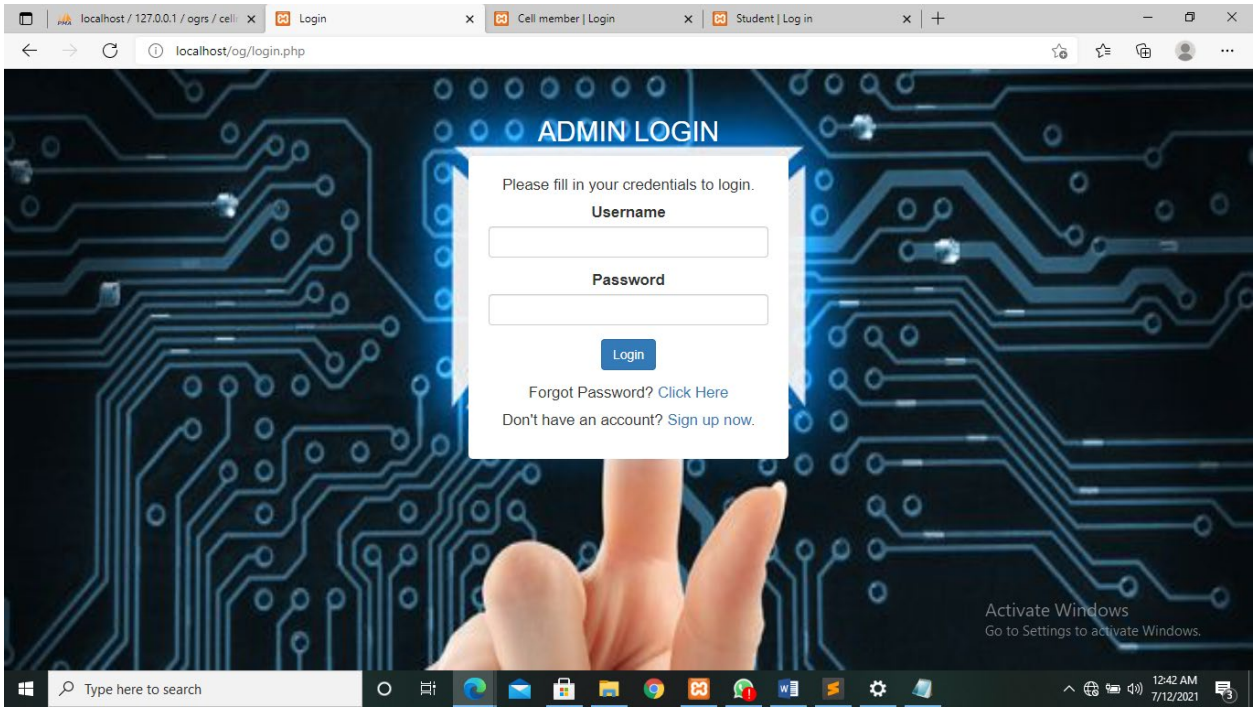
The implementation includes the following things.

- Careful planning
- Investigation of system and constraints.
- Design the methods to achieve the charge over.
- Training the staff in the changed phase.
- Evaluation of change over method.

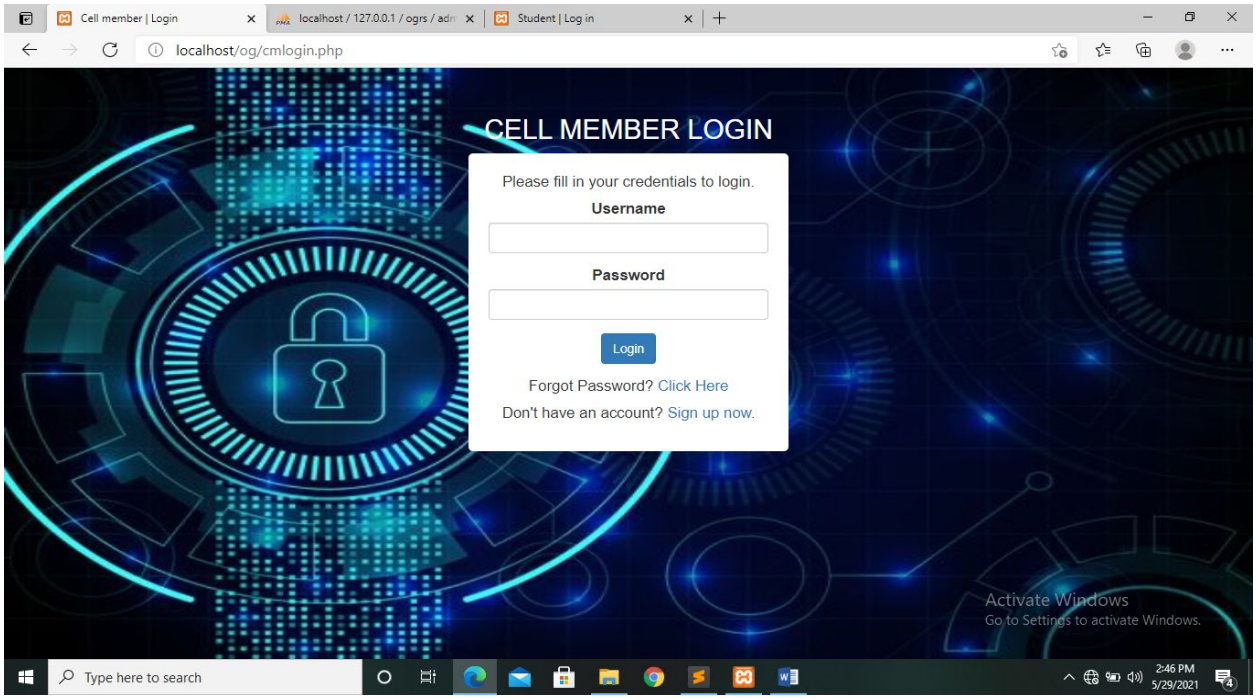
The method of implementation and time scale to be adopted are found out initially

8. SCREENSHOTS

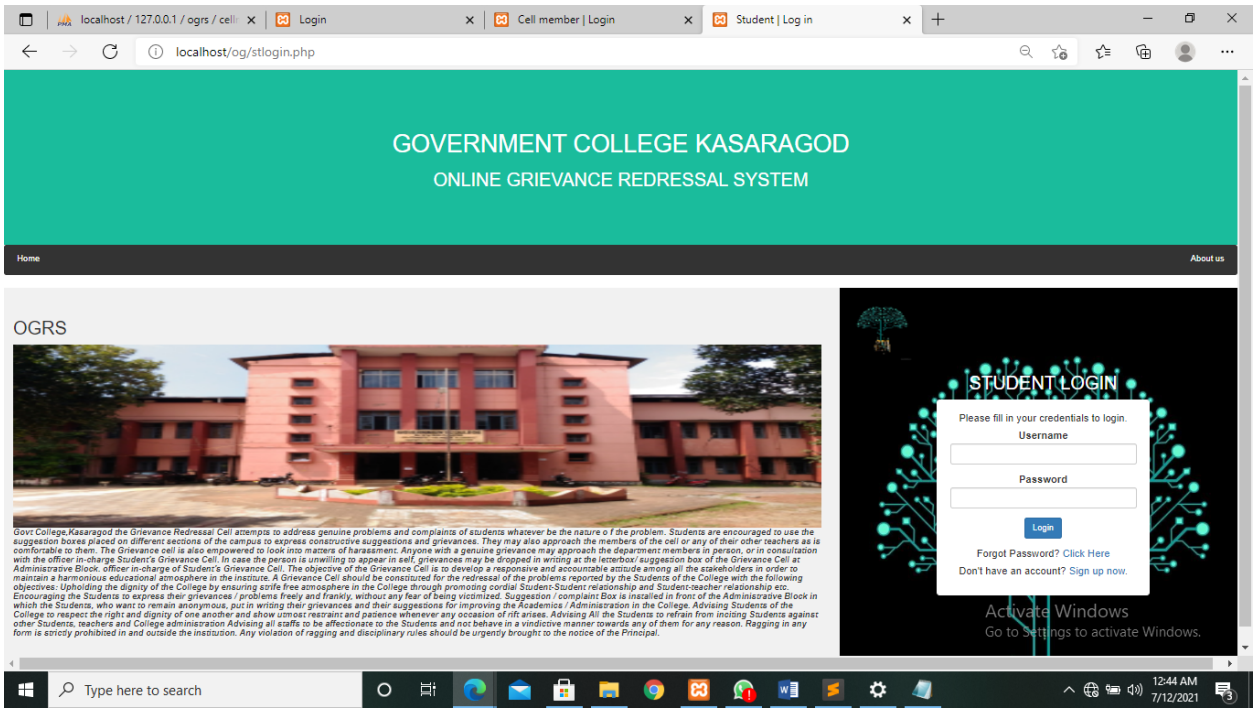
8.1 ADMIN LOGIN



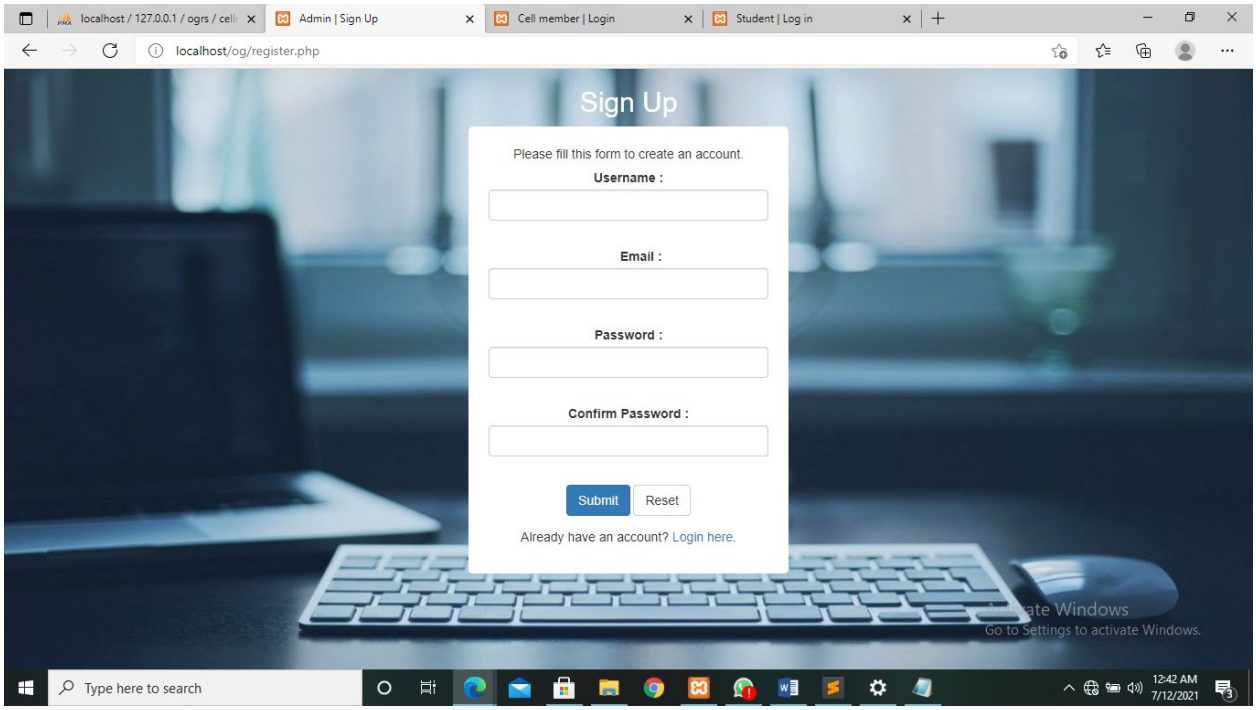
8.2 CELL MEMBER LOGIN



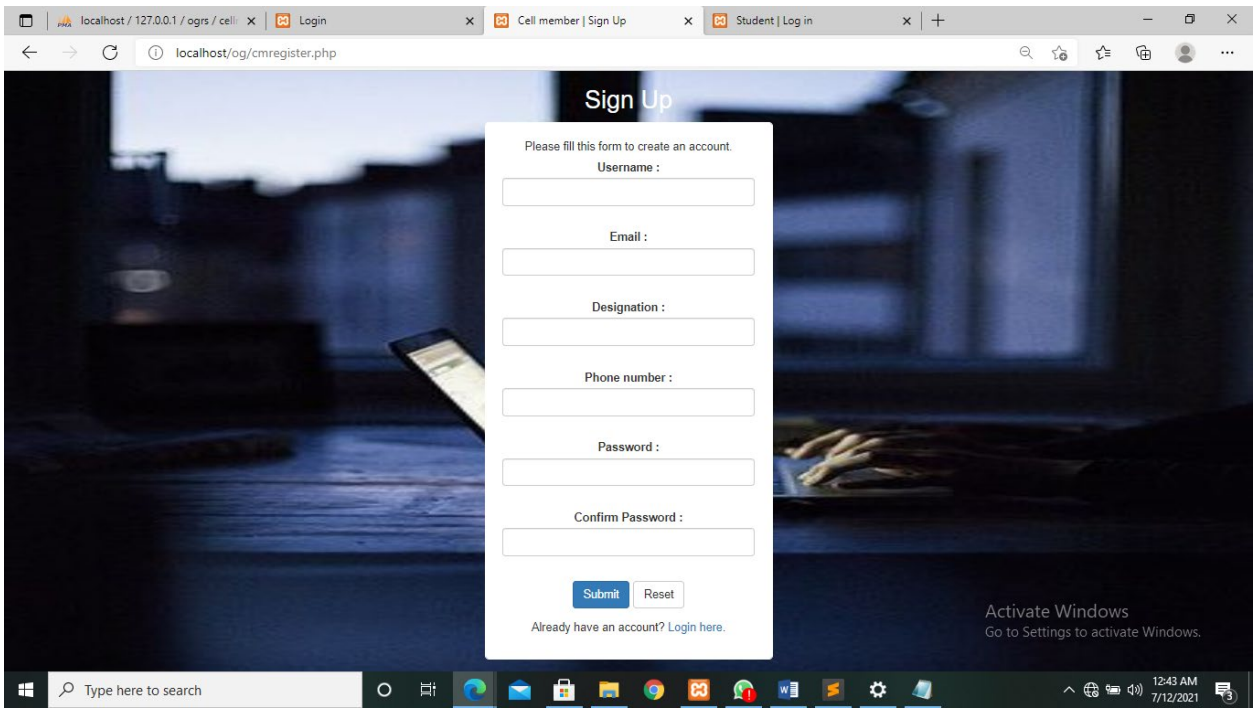
8.3 STUDENT LOGIN



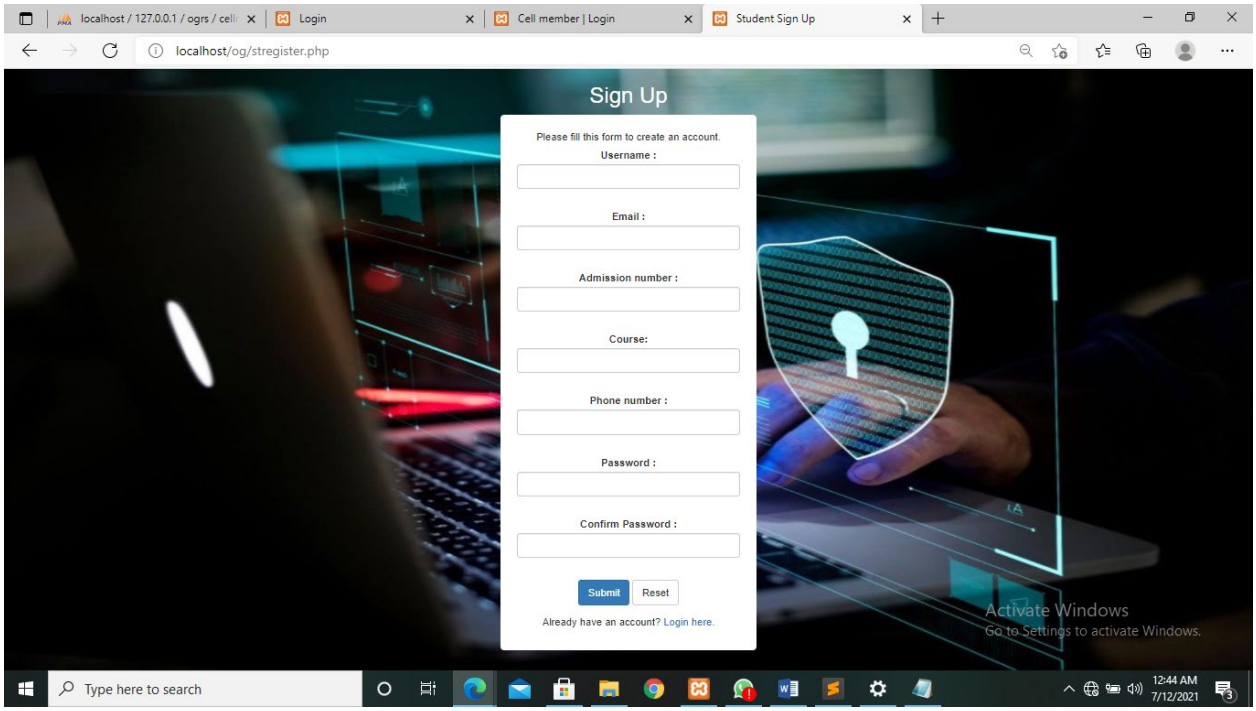
8.4 ADMIN REGISTRATION



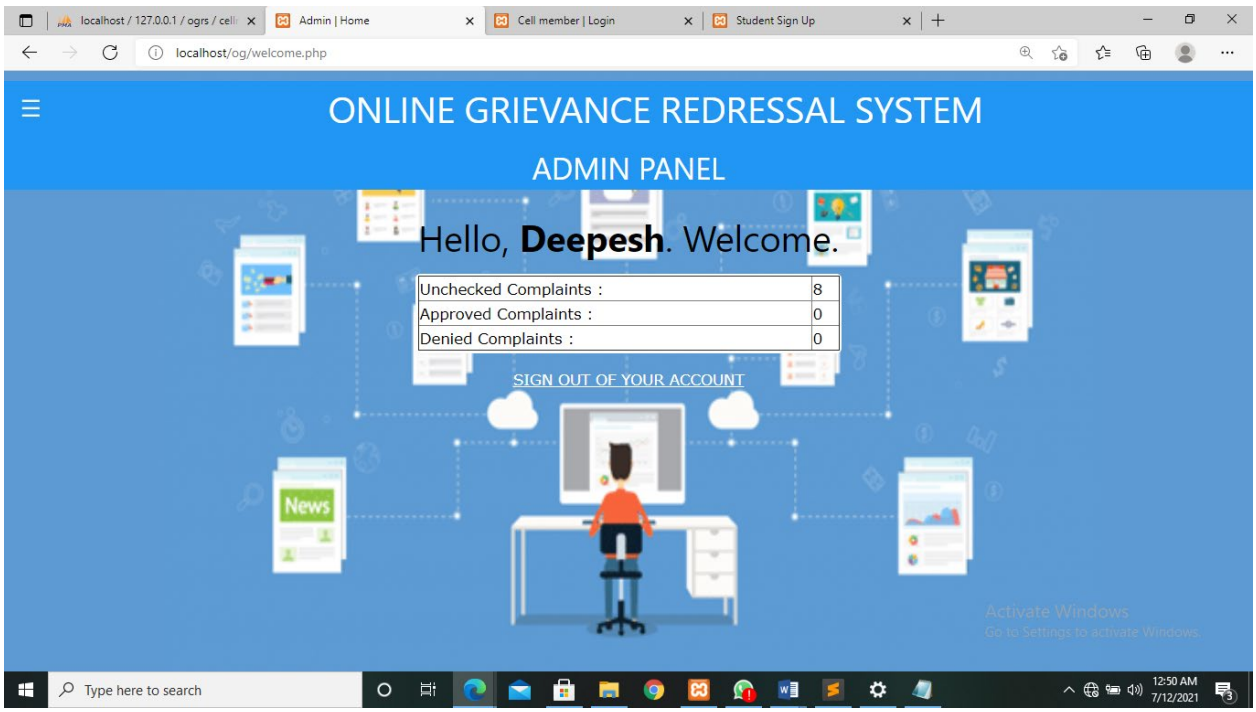
8.5 CELL MEMBER REGISTRATION



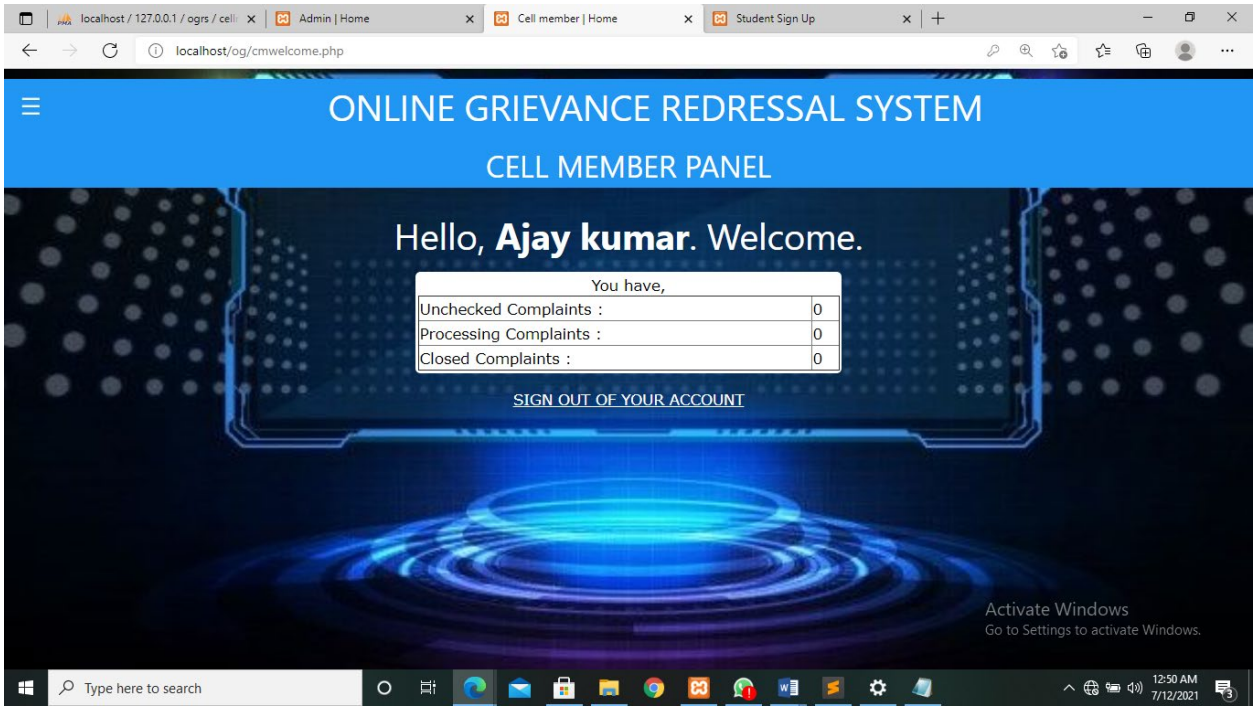
8.6 STUDENT REGISTRATION



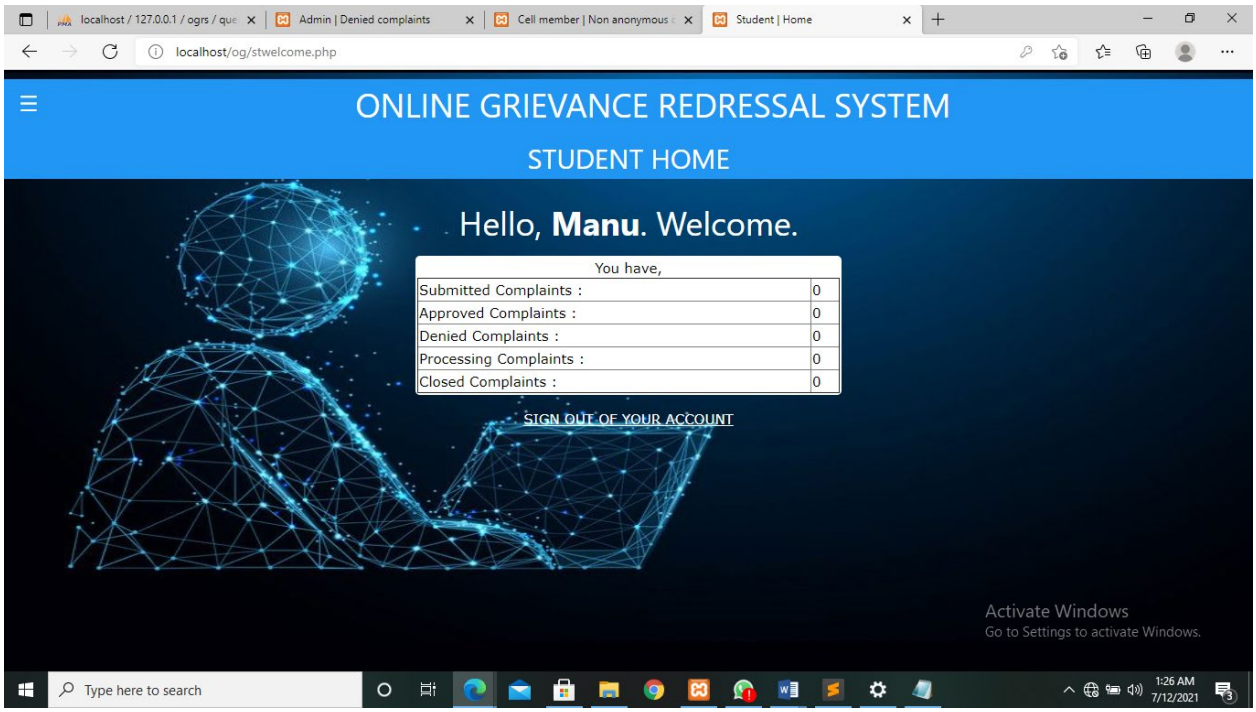
8.7 ADMIN HOME PAGE



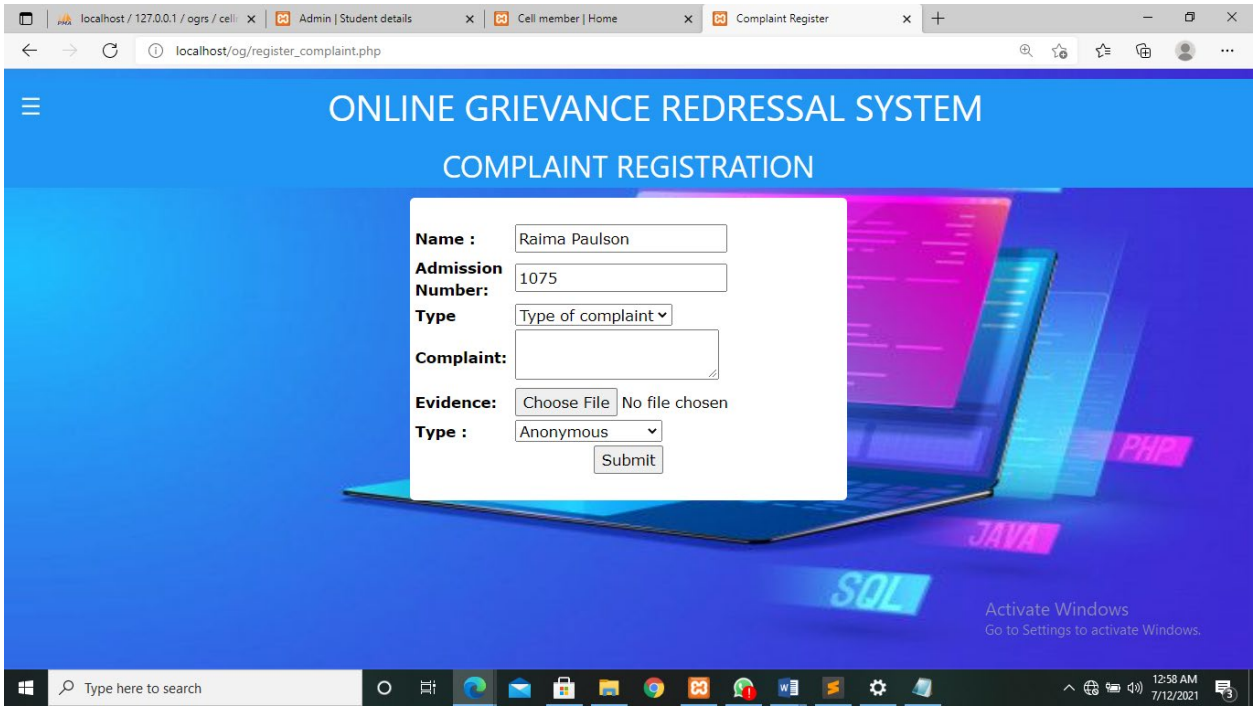
8.8 CELL MEMBER HOMEPAGE



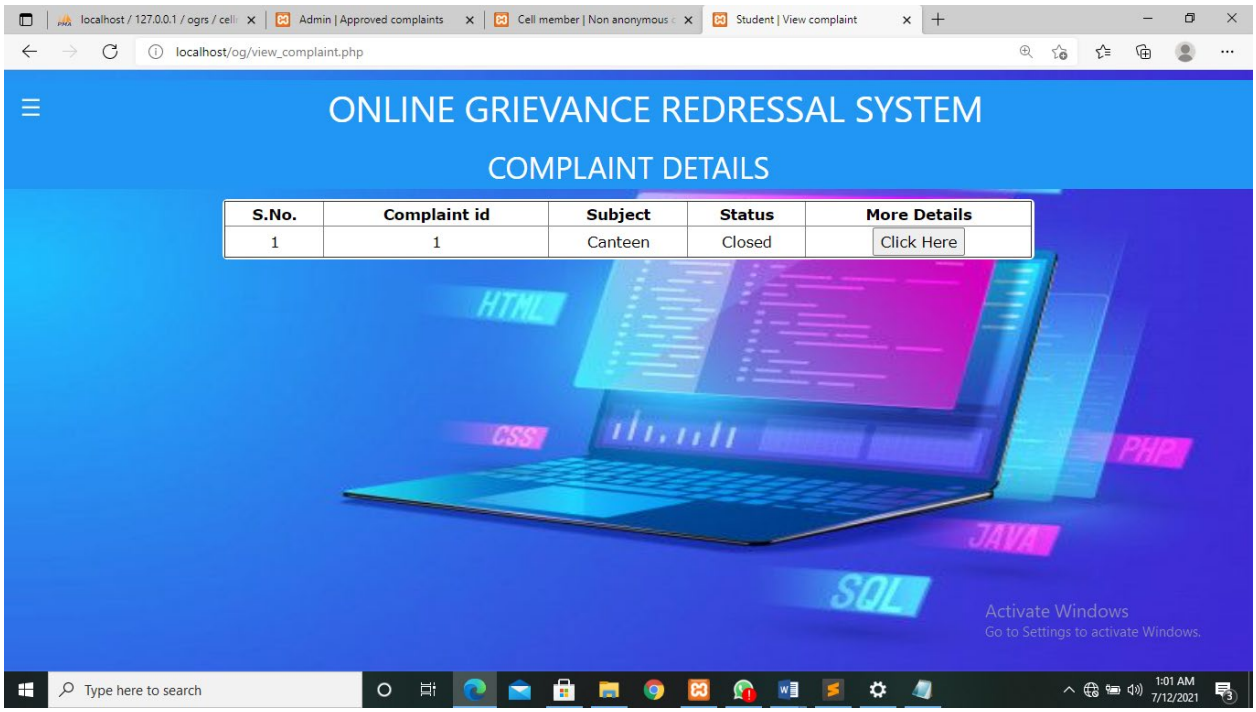
8.9 STUDENT HOMEPAGE



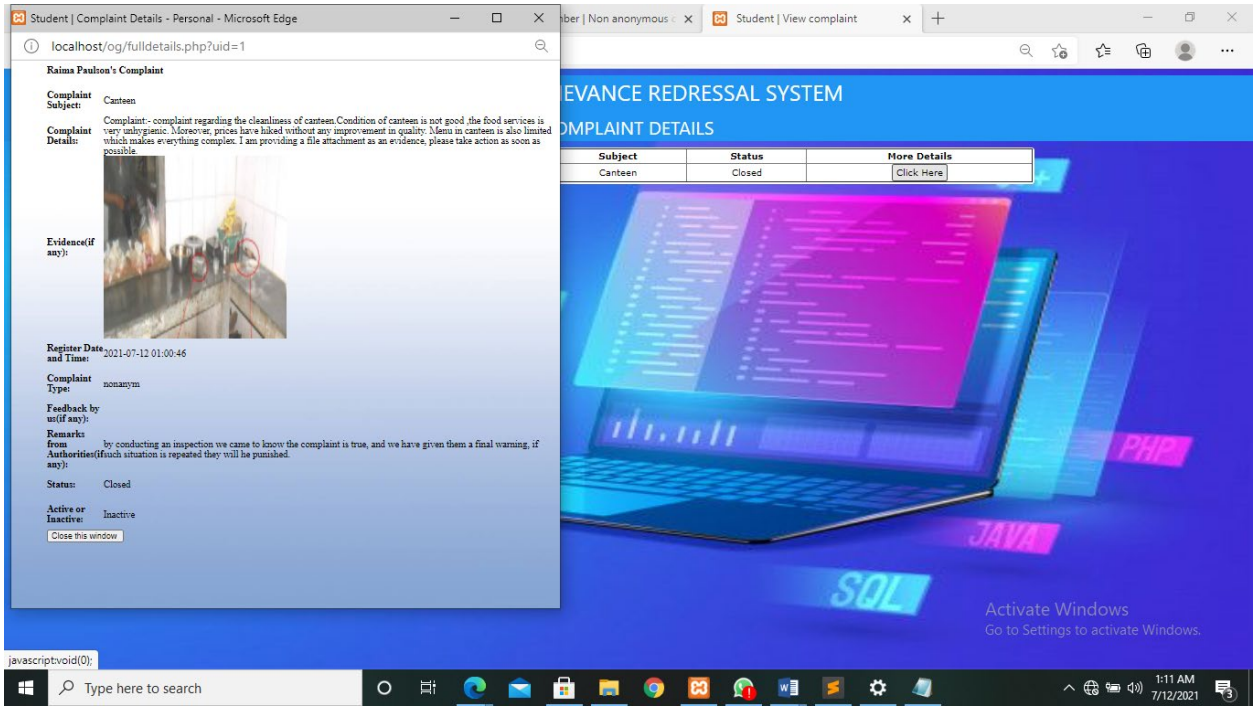
8.10 REGISTER COMPLAINT



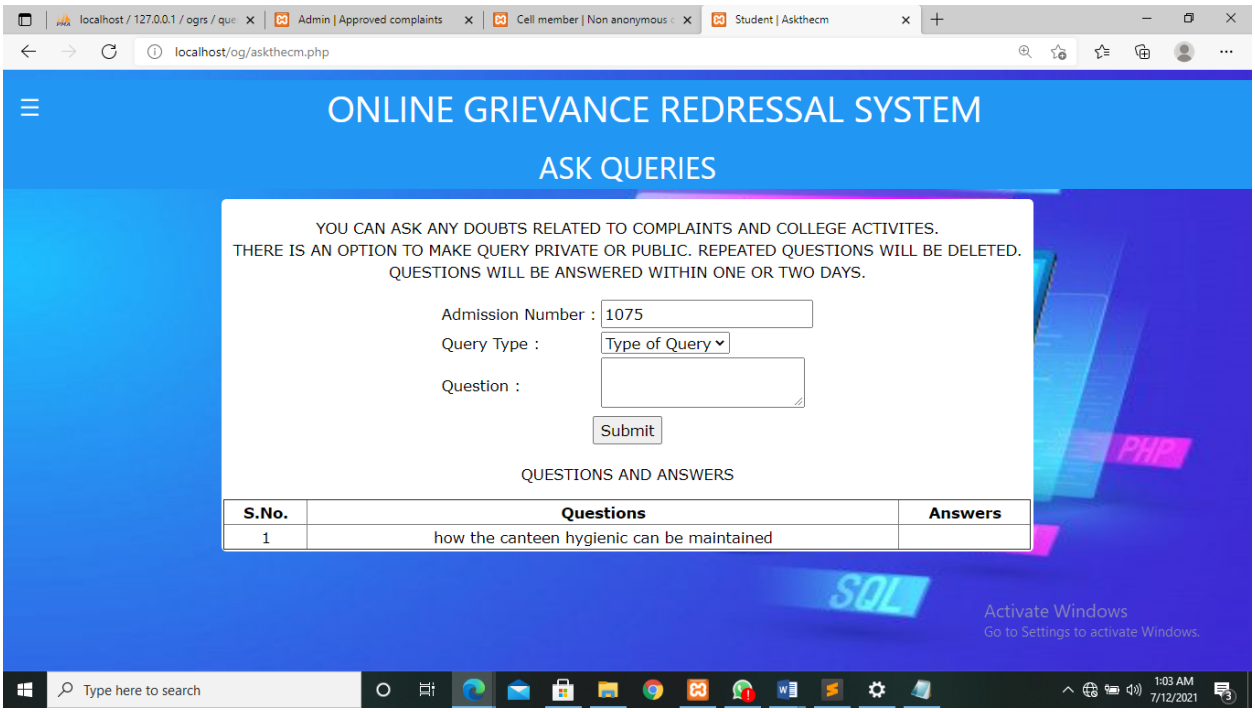
8.11 VIEW COMPLAINT



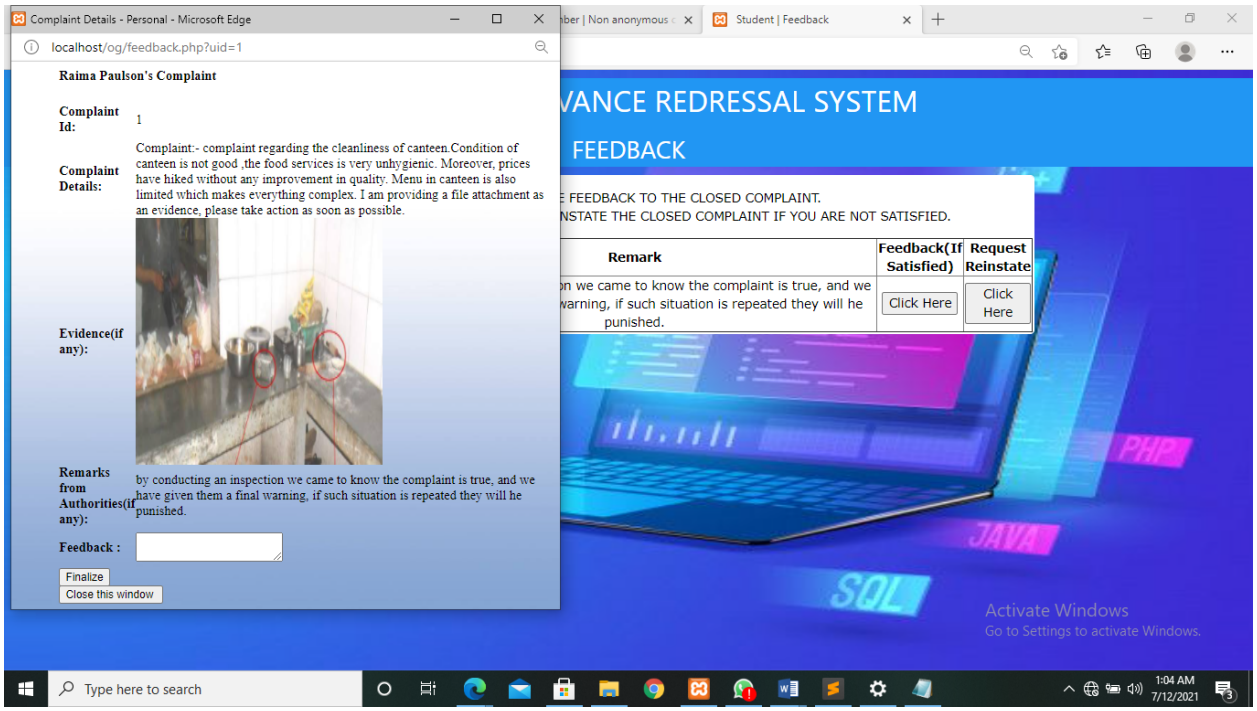
8.12 VIEW FULL DETAILS



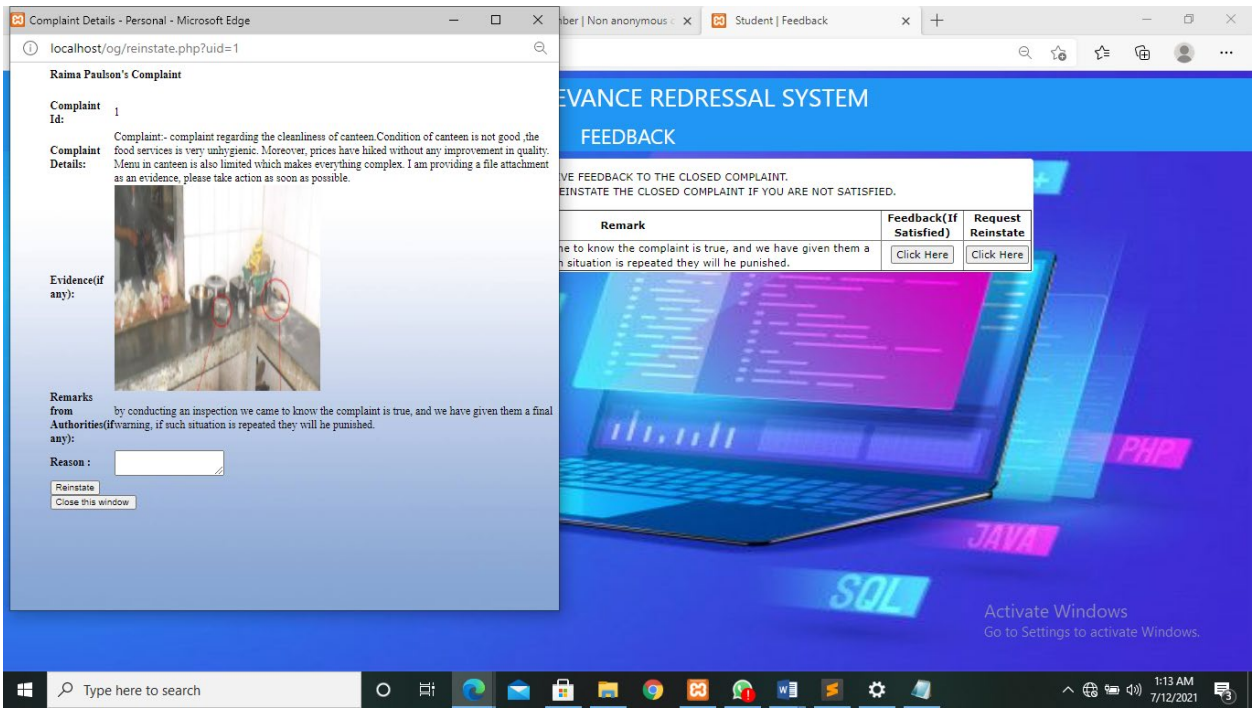
8.13 ASK QUERIES



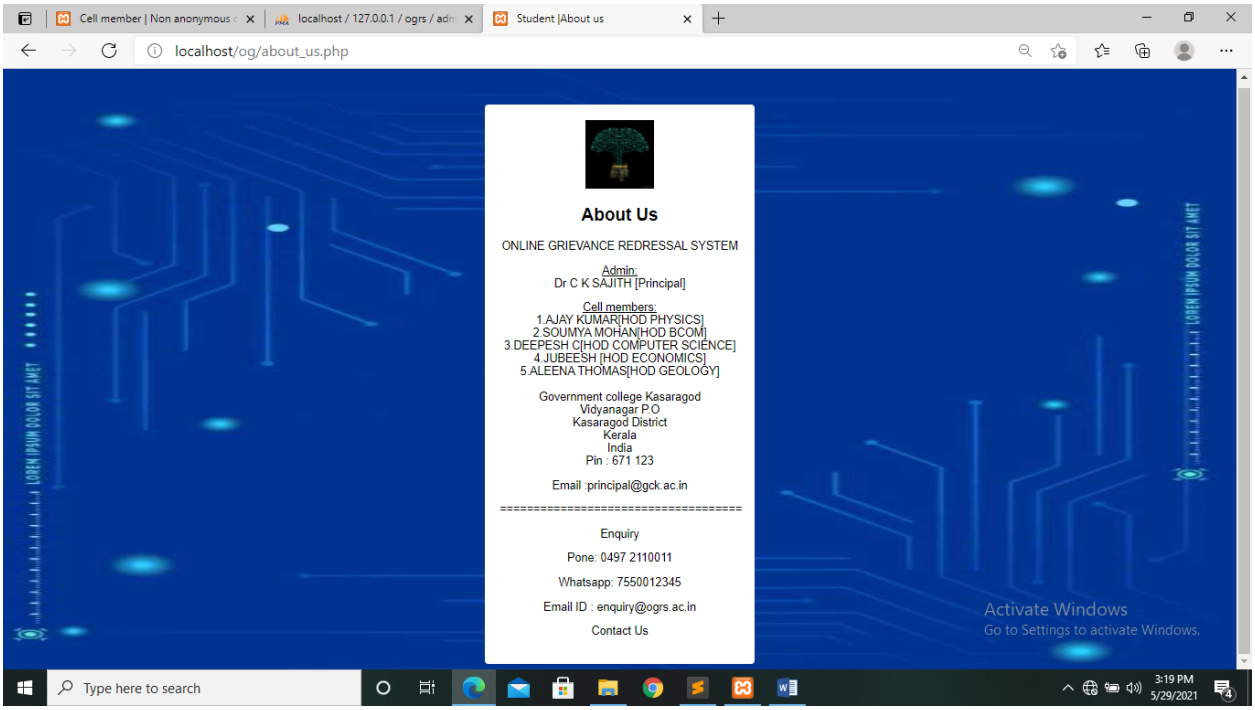
8.14 FEEDBACK



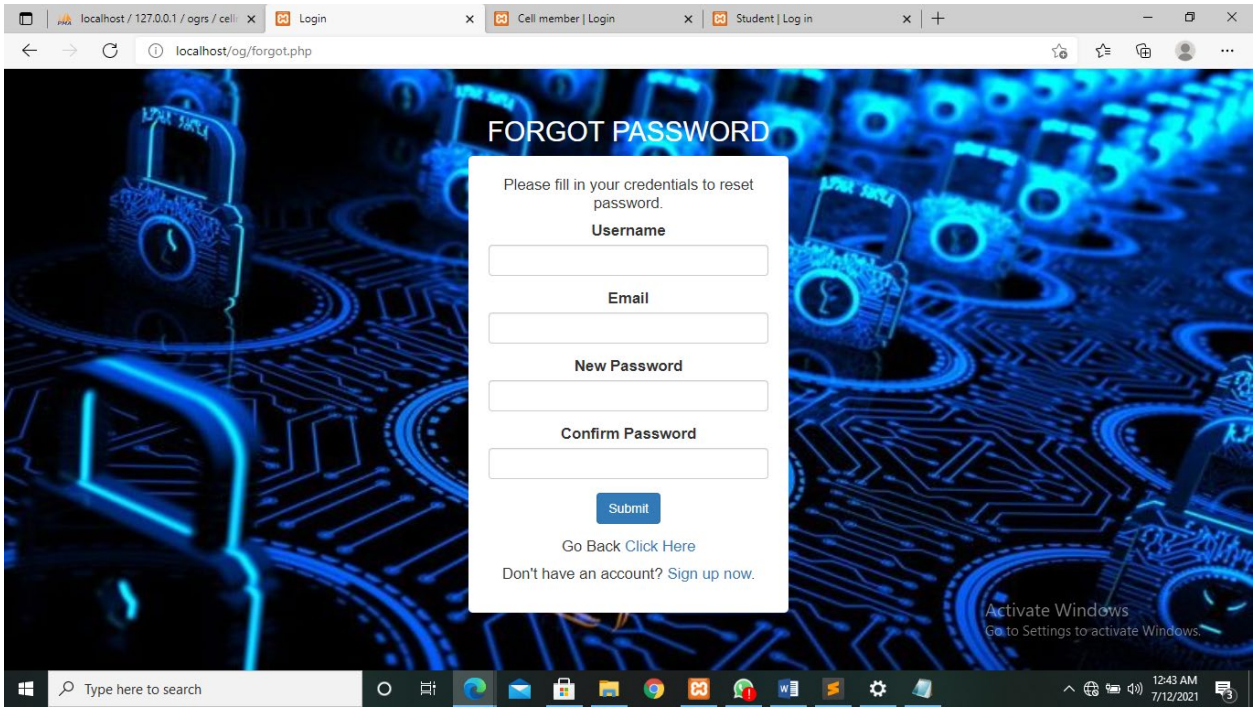
8.15 REINSTATE



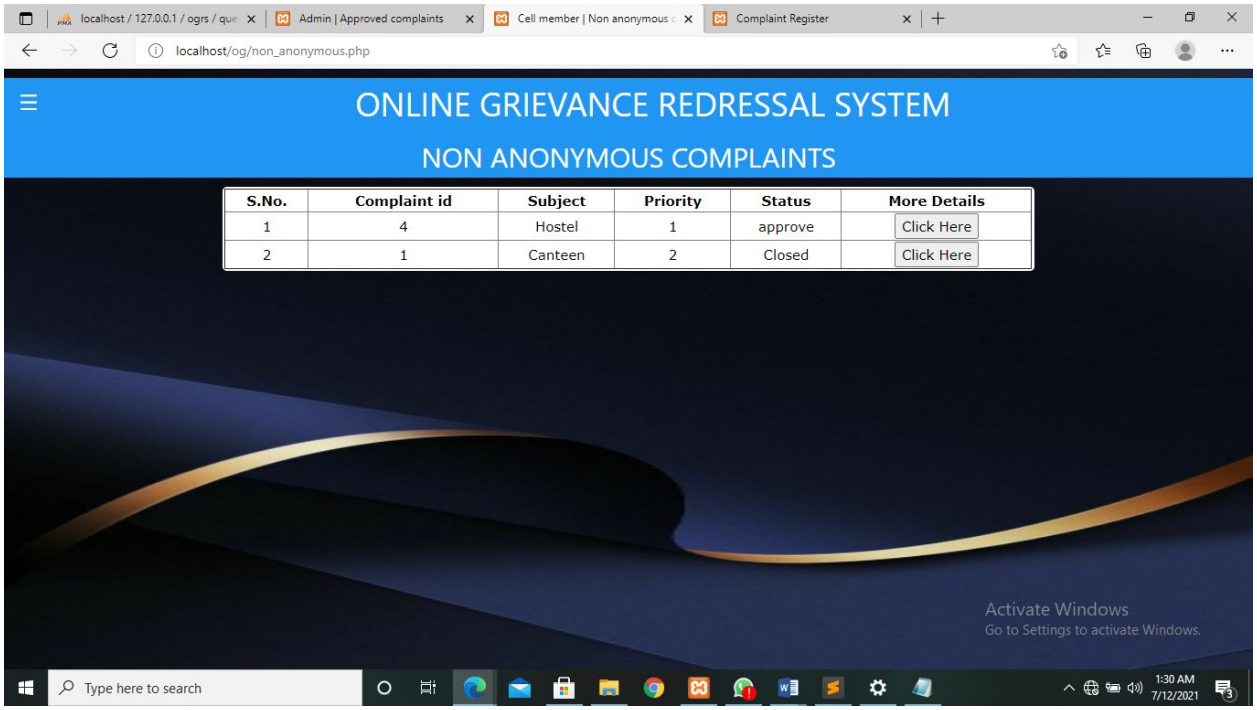
8.16 ABOUT US



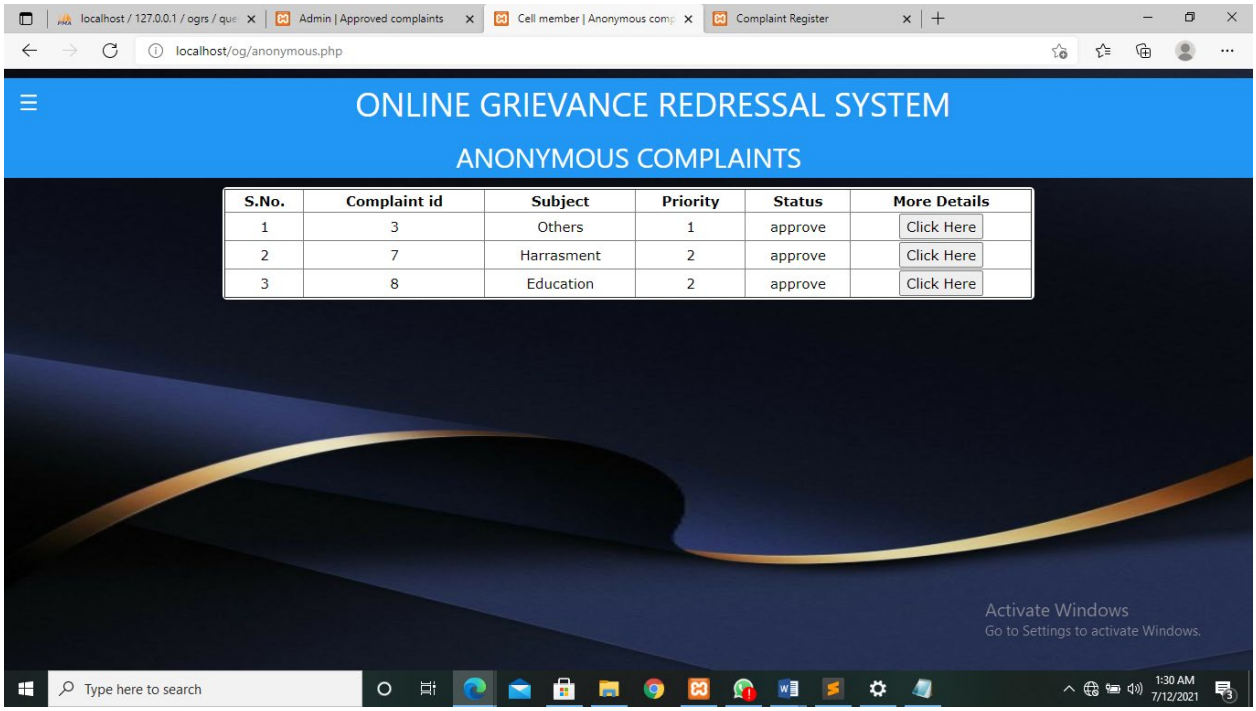
8.17 ADMIN FORGOT PASSWORD



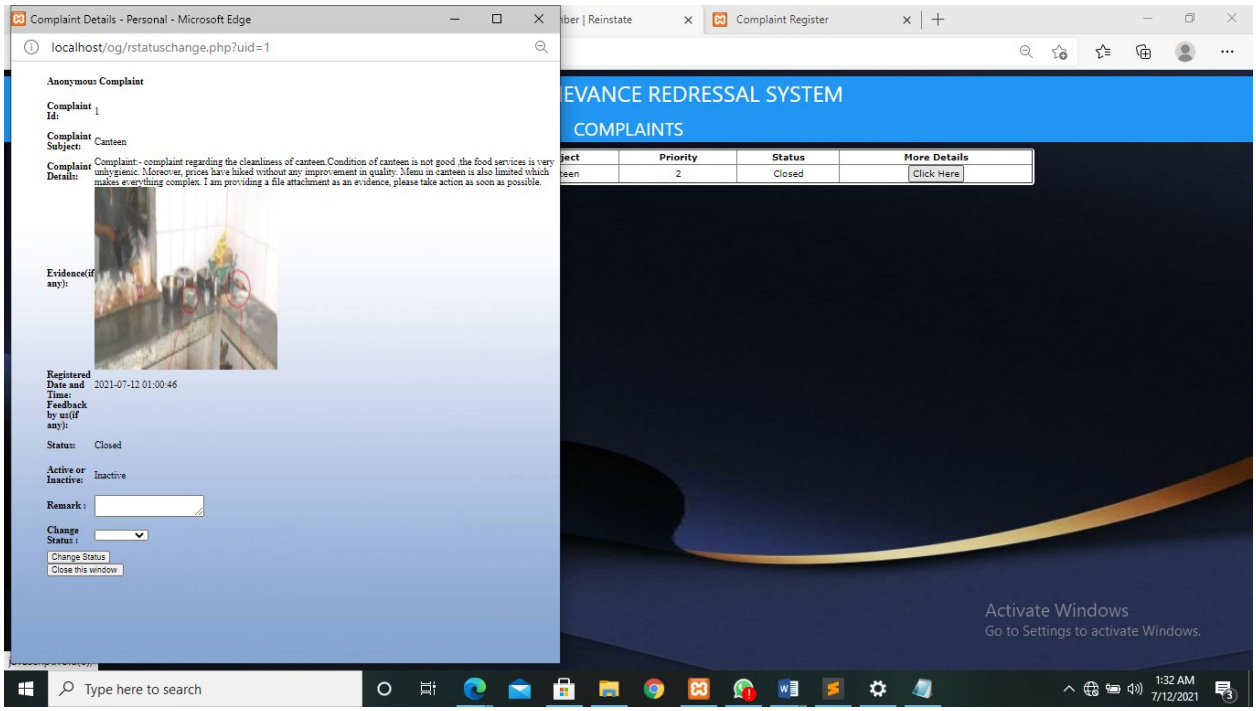
8.18 NON-ANONYMOUS COMPLAINTS



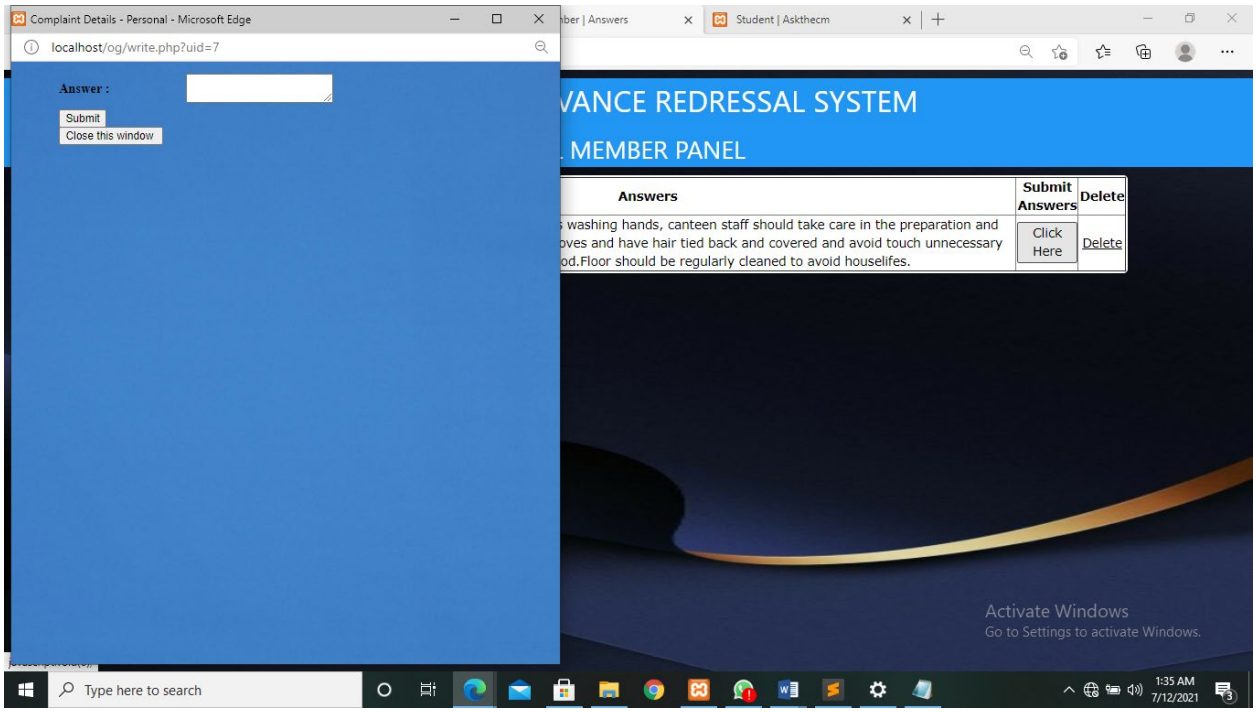
8.19 ANONYMOUS COMPLAINTS



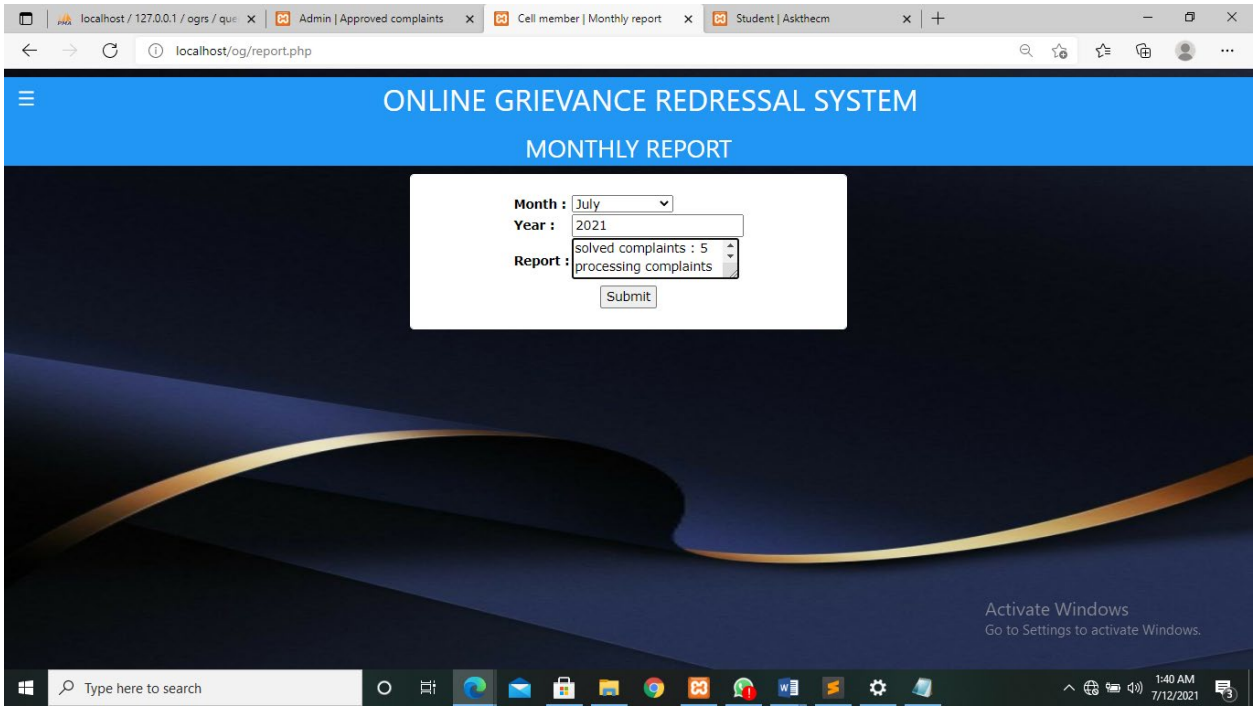
8.20 REINSTATE OR FINALIZE



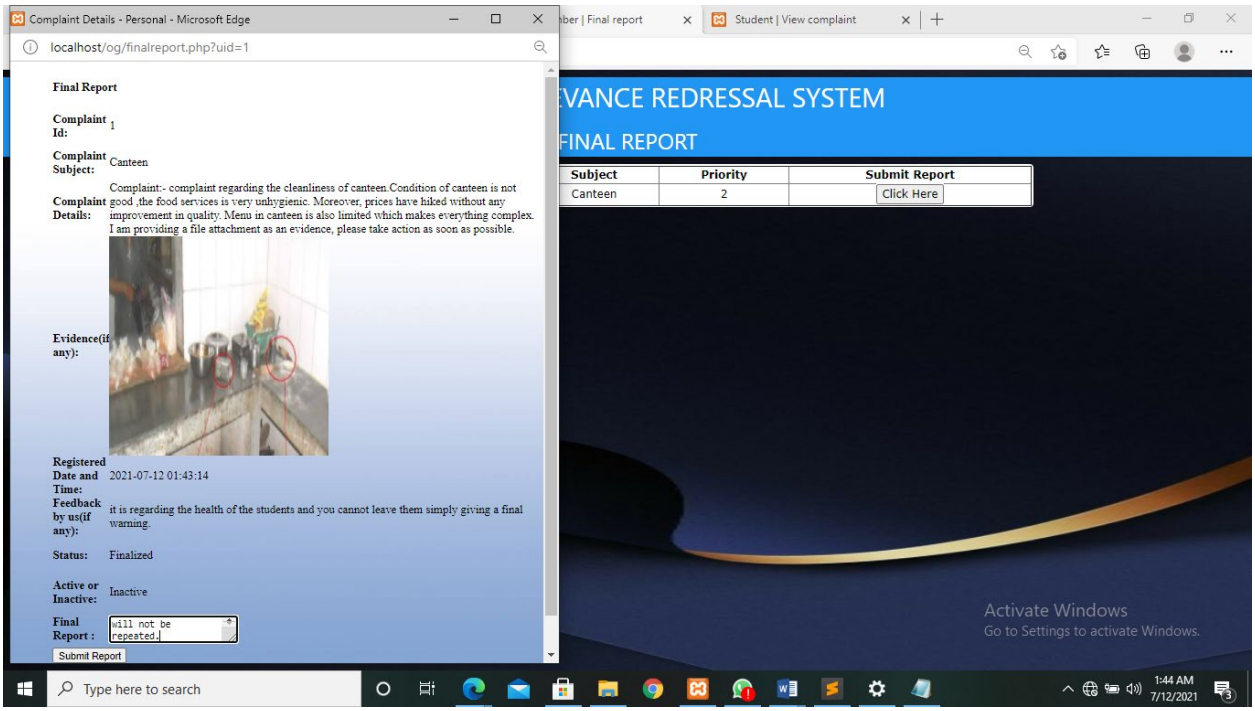
8.21 GIVE ANSWERS



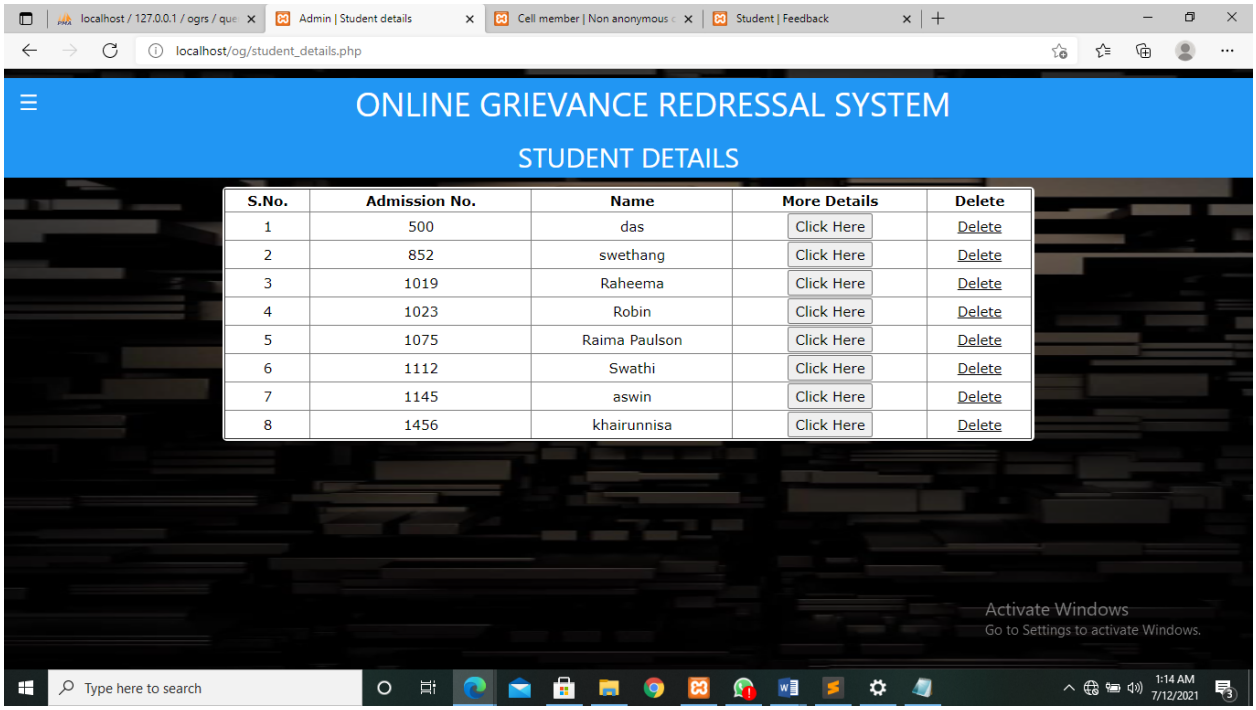
8.22 MONTHLY REPORT



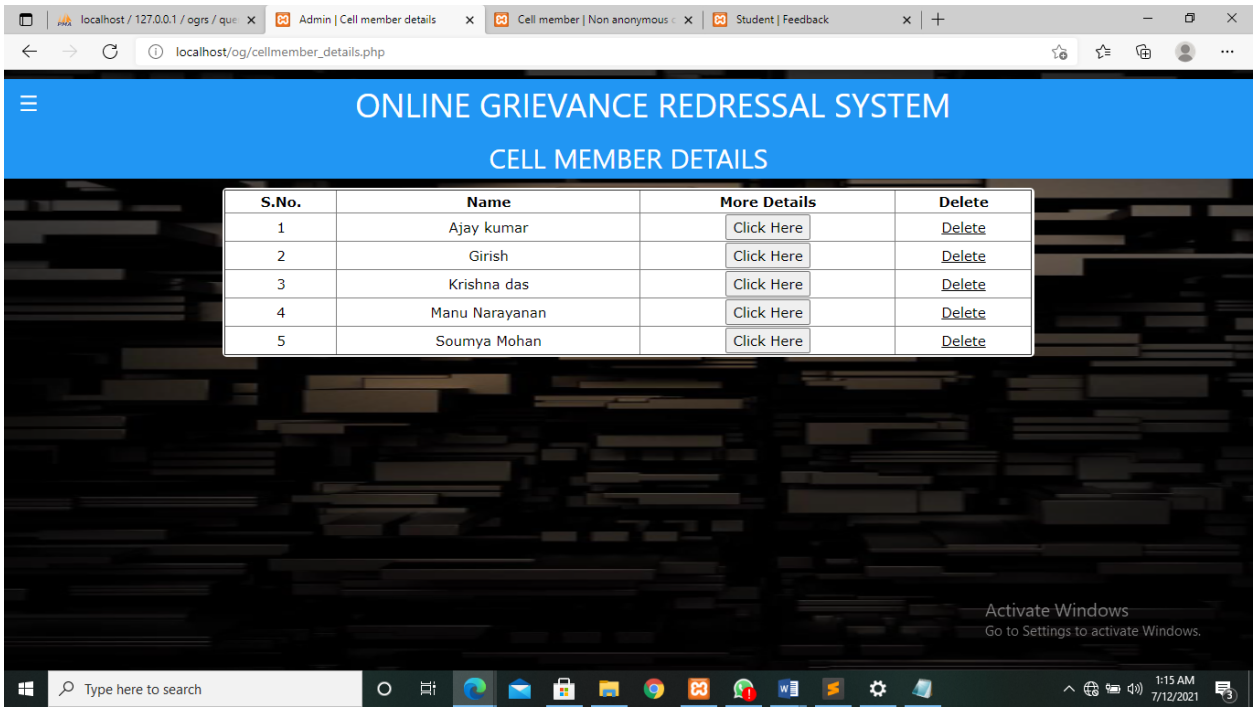
8.23 FINAL REPORT



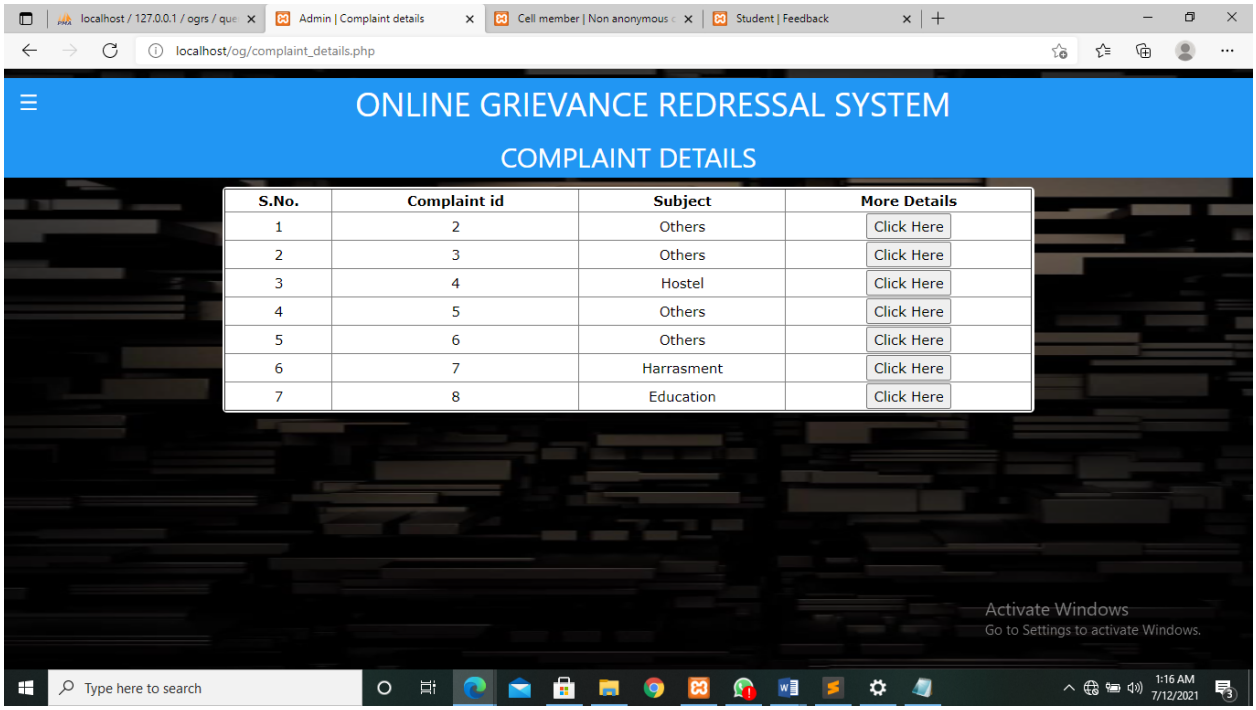
8.24 STUDENT DETAILS



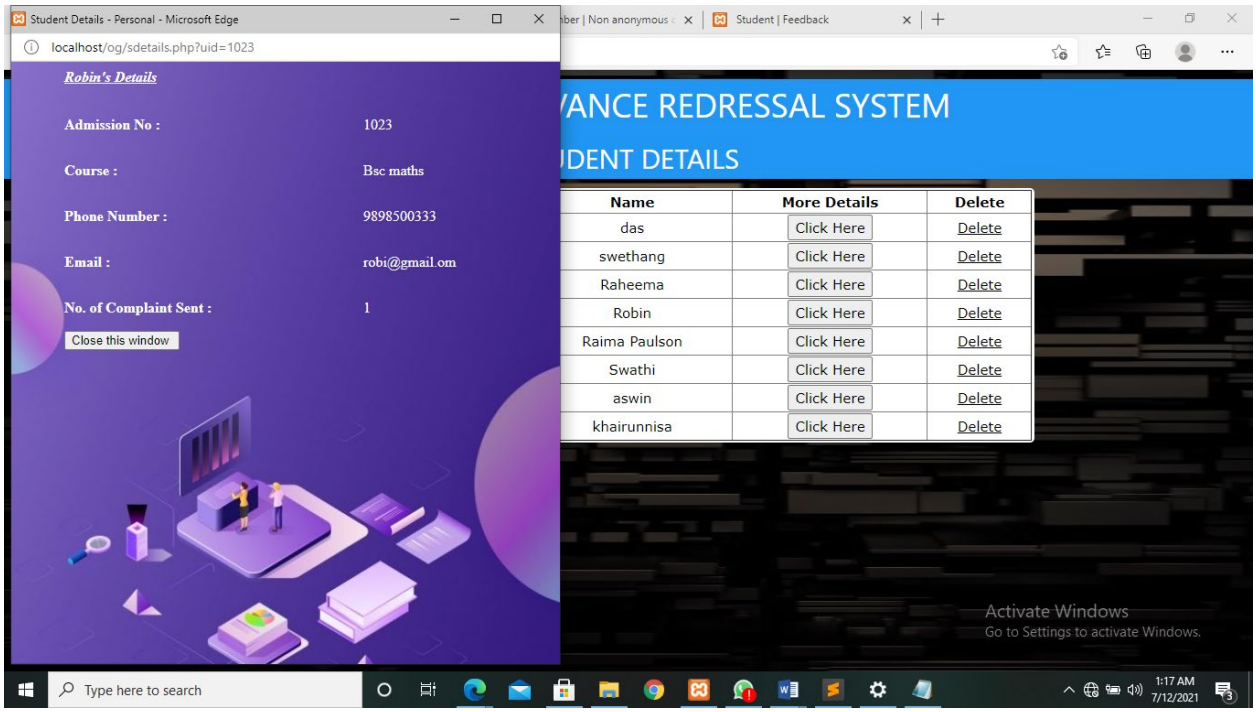
8.25 CELLMEMBER DETAILS



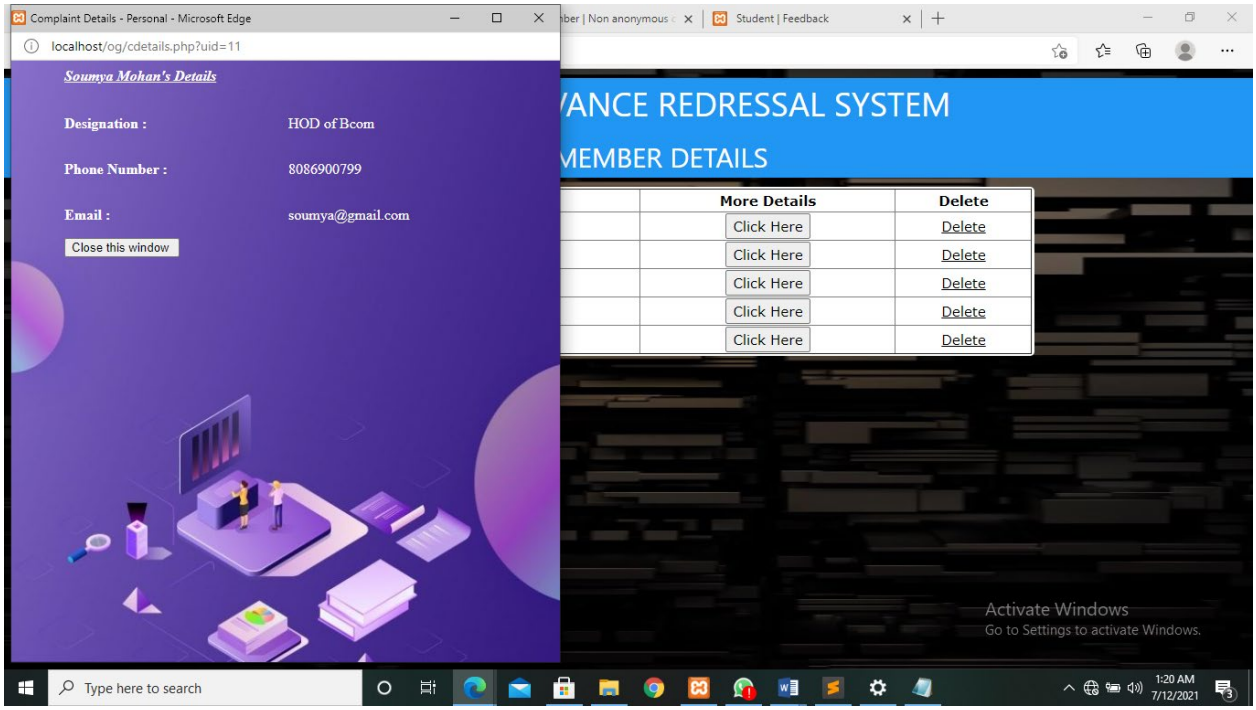
8.26 COMPLAINT DETAILS



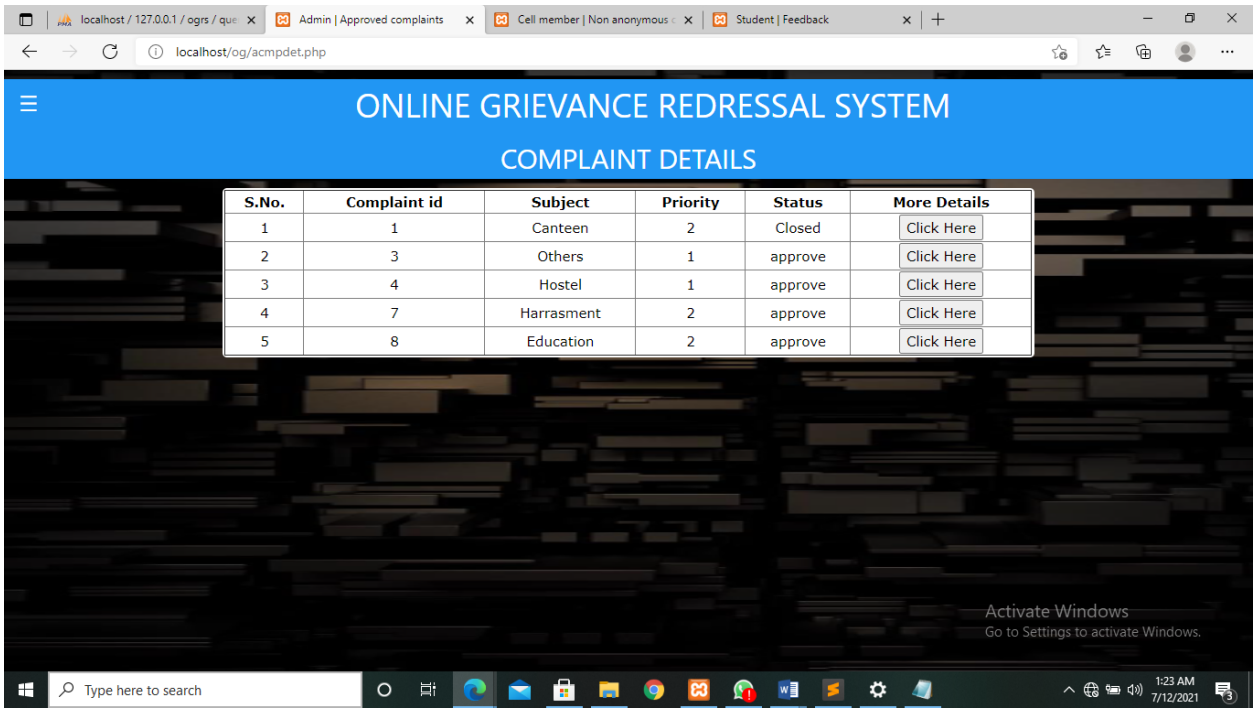
8.27 MORE DETAILS OF STUDENT



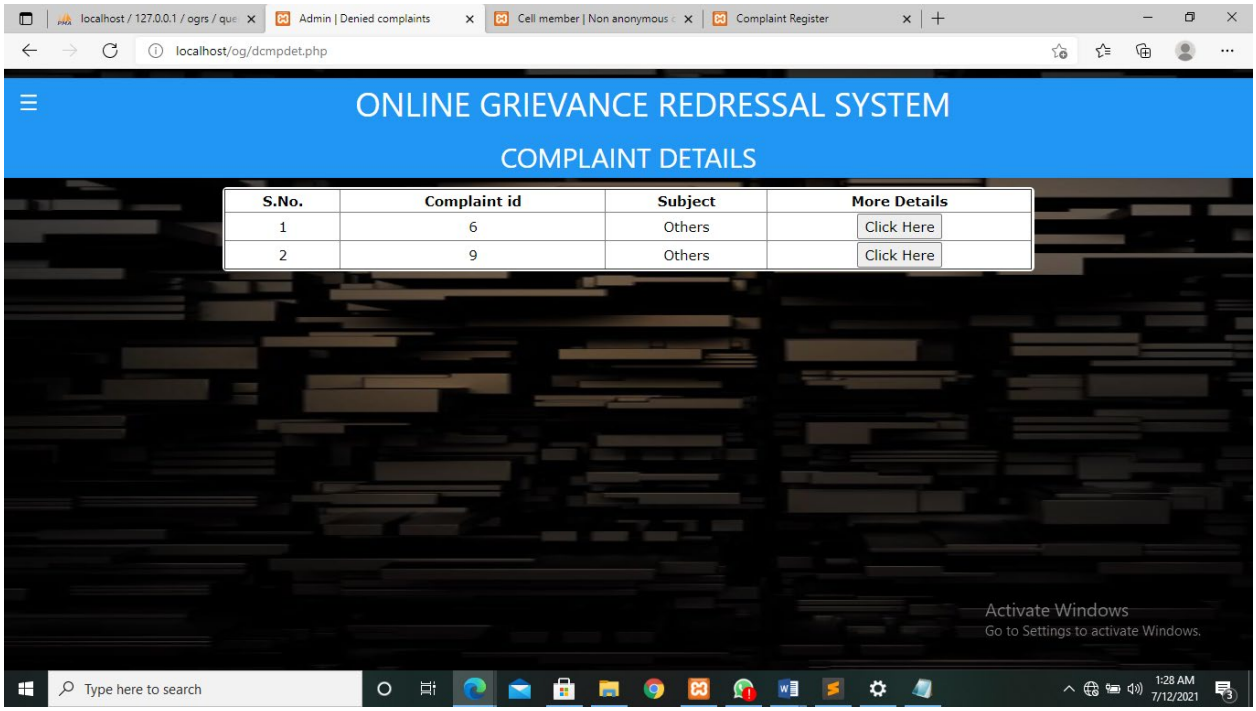
8.28 MORE DETAILS OF CELL MEMBER



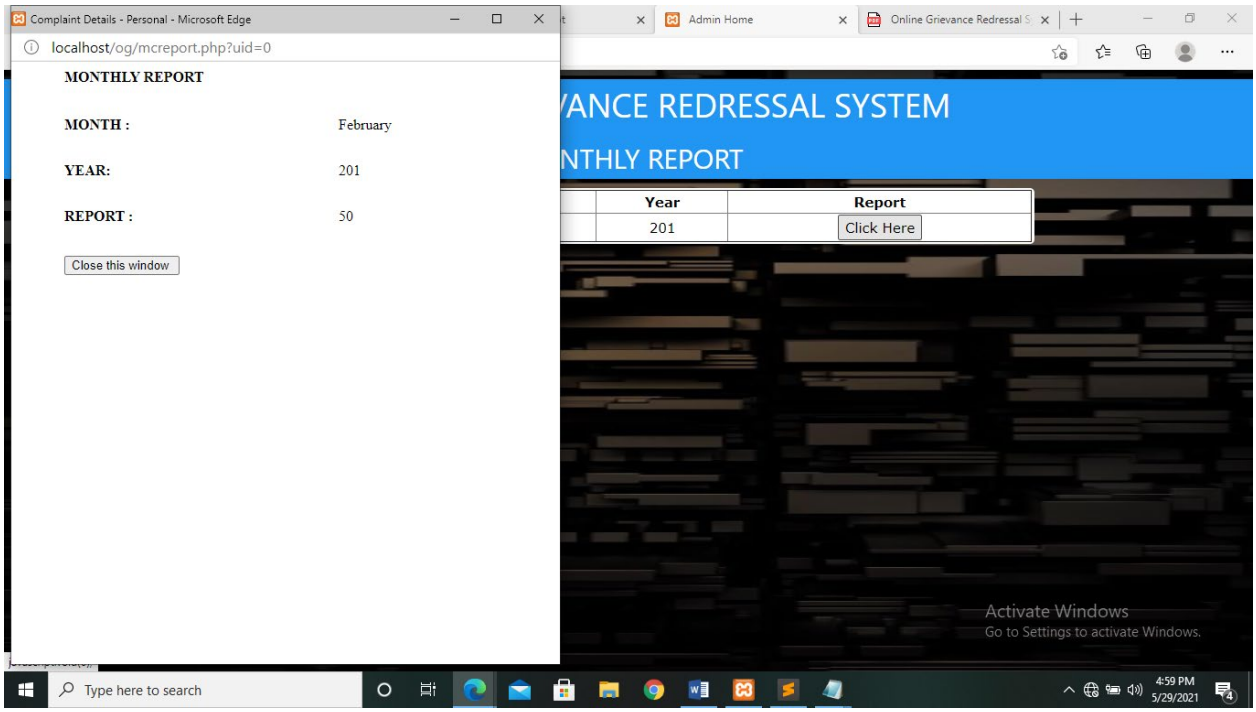
8.29 APPROVED COMPLAINTS



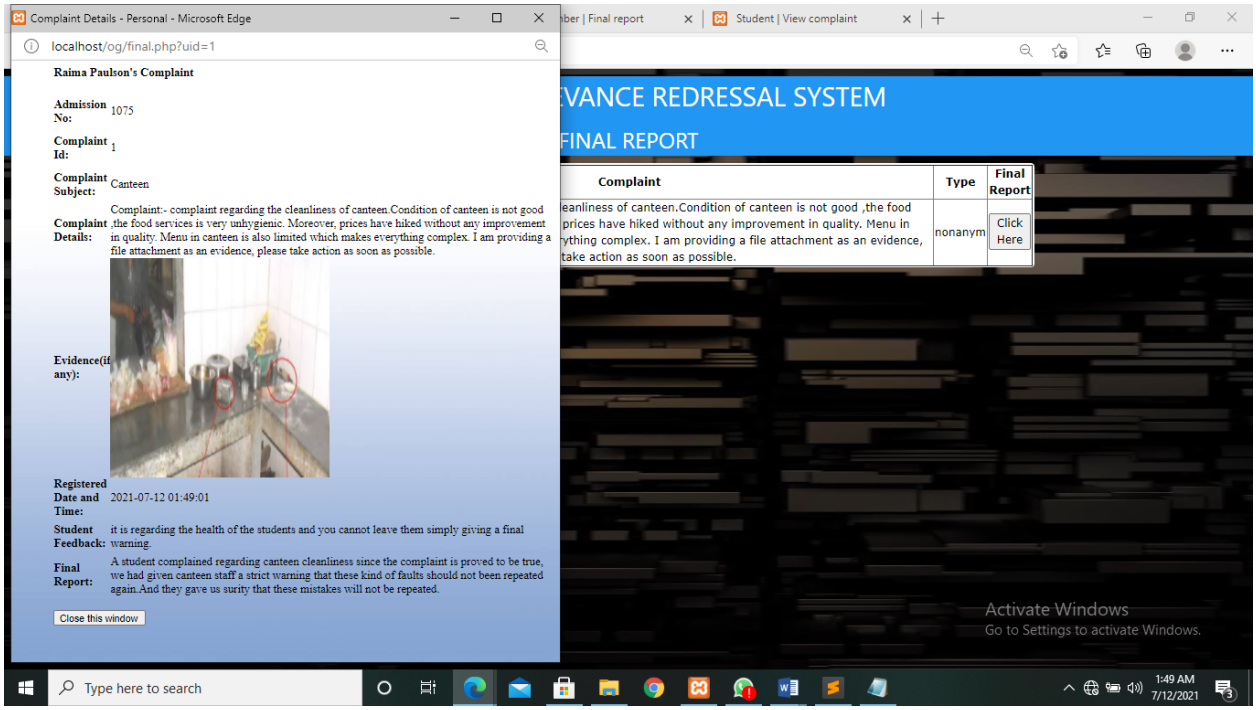
8.30 DENIED COMPLAINTS



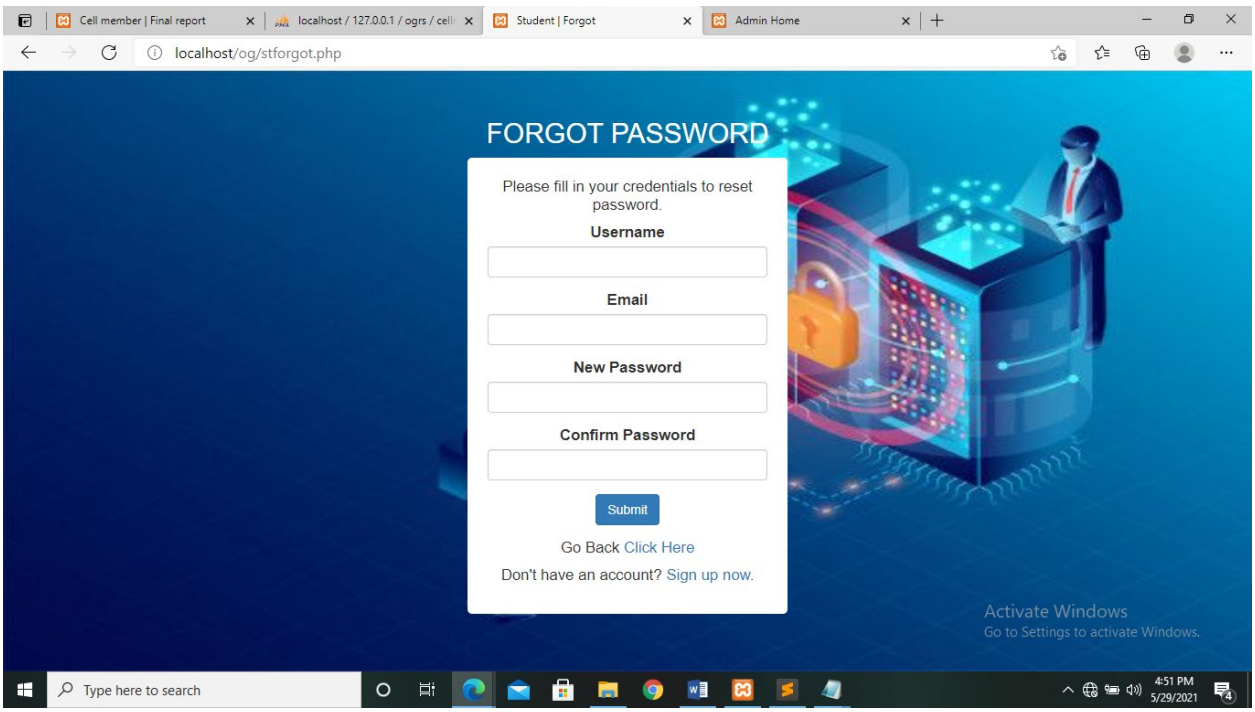
8.31 MONTHLY REPORT



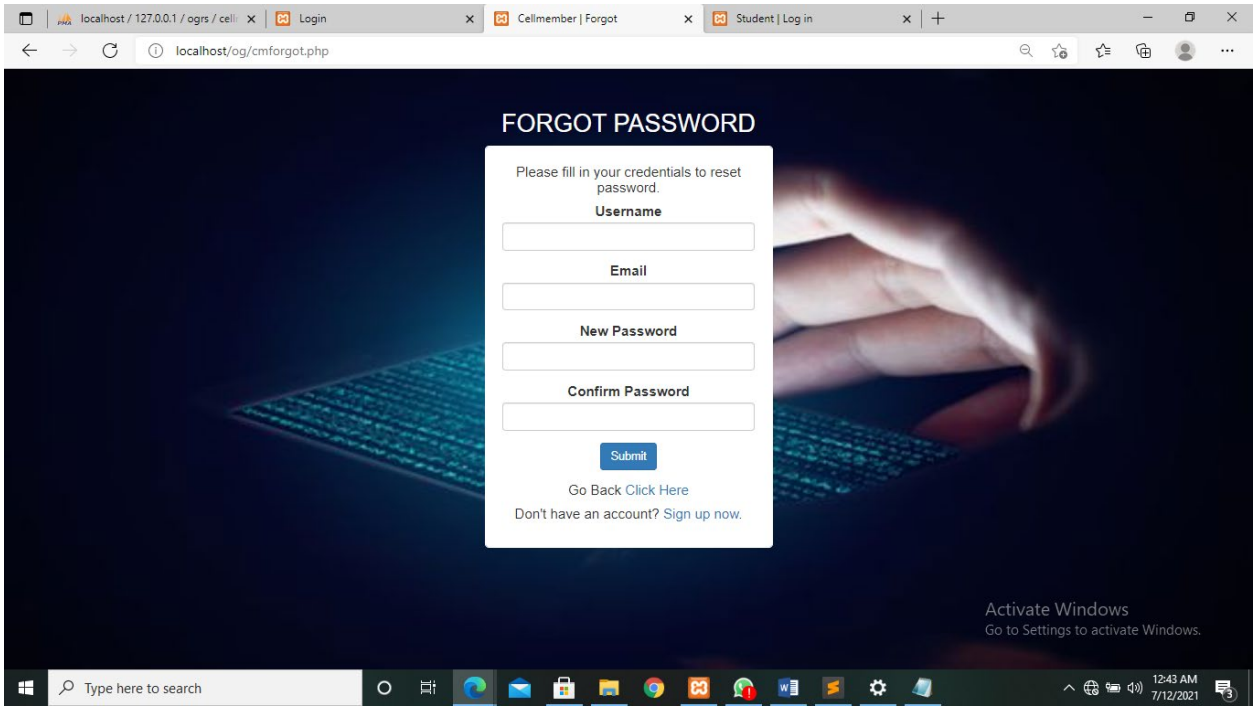
8.32 FINAL REPORT



8.34 STUDENT FORGOT PASWORD



8.35 CELL MEMBER FORGOT PASSWORD



9. CONCLUSION

After the completion of the project we are sure the problems in the existing system would overcome. The "ONLINE GRIEVANCE REDRESSAL SYSTEM" is made computerized to reduce human errors, stress and to increase the efficiency. The main focus of this project is to provide a better solution to the students who want to submit their complaints to the college authority. This system reduces the time consumed to complete the complaint redressal process. Instead of direct interaction with college authority and meeting face to face, students can make complaint submission through online. Complaints here are handled with sensitivity and confidentiality.

This website is created in simple user interface and in a user friendly manner. This system is simple, efficient and necessary in institution to investigate dissatisfaction of student and to obtain a speedy resolution of the problem.

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- IEEE, IEEE std 1016-1998 Recommended Practice for Software Design Descriptions, 1998-09-23, The Institute of Electrical and Electronics Engineers, Inc(IEEE).