Project Report

On DOCS4U

A
Dissertation
Submitted
by:

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Under the guidance of

Mr. Kalai Selvan

in partial fulfillment of the course of

e-Diploma in

_____

CDAC ACTS

Knowledge Park, Bengaluru

CERTIFICATE

This is to certify that

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Has successfully completed the project on

_____

Satisfactorily in partial fulfillment of the requirement of e-Diploma in

Advance Computing at Centre for Development of Advanced Computing (CDAC), Bengaluru.

Mr. Kalai Selvan
(Project Guide)

Uma Prasad
(Course Coordinator)

ACKNOWLEDGEMENT

We would like to express our sincere gratitude to all the people without whom the report of this project would have been highly impossible.
We would like to devote our first vote of thanks to our guide Mr. Kalai Selvan for his constant support and encouragement. He has a great hand in the firm foundation of this project.
We are deeply in debt for his valuable suggestions, scholarly guidance and constructive criticisms along with constant encouragement at each and every step for successful completion of the project report.
Last but not the least we would like to thank all those who assisted us directly or indirectly for their valuable time and help.

CONTENTS

ABSTRACT

DOCS4U is a cloud platform made for interaction among students and teachers where specifically teachers can share their materials all along the class where students are feasible to access it with their respective validation of login credentials irrespective of time boundaries, limited resources with more availabilities.

The environment used for this project is JAVA. This project is based on advance JAVA i.e SPRING BOOT, SPRING MVC, HIBERNATE, My SQL Database. The software used for this java JDK1.7, Window 10 operating system and above.

INTRODUCTION

Docs4U being launched because a need for a destination that is beneficial for both teacher and student. With this system, teachers can upload the assignments and other important files like details of upcoming exams, schedule for classes. Students can view the uploaded documents by the teacher and can download them according to their needs.

Purpose

Docs4U fulfils the requirements of the teachers/students to conduct the exams online. This software is further more feasible then on-premise data center as it provides better student communication creating teacher management portals in addition It makes it easier for students to access the same materials and learning resources, regardless of the devices or internet browsers they use. The accessibility of web-based content for people with disabilities and across mobile platforms is improved. Educational institutes can have more resources to convey the study material among the students in remote areas.

What is Docs4U all about?

Docs4U is a web application that establishes a network between the teachers and students. Teachers will upload the required documents like time table, syllabus, pdfs, class assignments and many more informative documents.

Docs4U provides the platform but does not directly participate in. Documents are not posted by the system, but users of the system i.e., teachers. The system requires a teacher to login before posting the documents.
The system has an administrator who keeps an eye on the overall functioning of the system. The system entitled "Docs4U" is application software, which aims at providing services to the institutes and providing them with an option of uploading the documents by themselves. It is developed by using J2EE technology and MySQL database.

REQUIREMENT SPECIFICATION

- ## Software Requirement

Apache Tomcat Server:- Apache Tomcat, often referred to as Tomcat Server, is an open-source Java Servlet Container developed by the Apache Software Foundation (ASF). Tomcat implements several Java EE specifications including Java Servlet, Java Server Pages (JSP), provides a "pure Java" HTTP web environment in which Java code can run.

Tomcat is developed and maintained by an open community of developers under the auspices of the Apache Software Foundation, released under the Apache License 2.0 license, and is open-source software.

Eclipse IDE: -Eclipse is an integrated development environment (IDE) used in computer programming, and is the most widely used Java IDE. It contains a base workspace and an extensible plug-in system for customizing the environment. Eclipse is written mostly in Java and its primary use is for developing Java applications, but it may also be used to develop applications in other programming languages through the use of plugins.

MySQL: - MySQL is an open-source relational database management system based on SQL – Structured Query Language. The application is used for a wide range of purposes, including data warehousing, e-commerce, and logging applications.

Operating System: Window 10 or above

Front End: JAVA jdk1.7

- ## Hardware Requirement

Speed : 233 MHz and above

Hard Disk : 50GB or above

RAM : 2GB or above

FLOW OF EXECUTION OF PROJECT

We have followed the three-tier architecture in our project- service and DAO layer is built as a web service. So basically, it is independent from the Presentation layer. The relational database is adopted because it is made up of a group of logically connected tables (data that has a relationship to other data).

1. From the client side, after the successful login, when the student clicks on the ‘download’ button, she/he will be able to download the required document

2. After clicking ‘download’ button he/she can click on ‘details’ to check his details and then he /she can ‘logout’ from the page.

3. On clicking ‘download’ the control will go to the user controller of Service layer where it will find the post mapping and fetch the required file from the docs repository which is then connected to the MySQL database docs table.

4. Then it will return download object which is finally return to the download page to the Presentation layer and download the document into the user’s computer/storage.

5. After this user will get an alert saying your file is successfully downloaded. And then student can logout of his /her page.

IMPLEMENTATION

Product Perspective:

(i) ***User interfaces:*** -The application will have a user-friendly interface.
Following screens will be provided:

- A main page displaying the type of user whether it's a teacher or a student.
- A login screen for entering the username, password will be provided. Access to different screens will be based upon the user.
- There is a screen for uploading document by teacher.
- There is a screen for viewing the document uploaded by teachers.
- There is a screen for students to download the uploaded documents and can see their details.
- There is a screen for displaying list of teachers.
- There is a screen for displaying list of students.

Constraints: -

Memory Constraints

- At least 512 MB RAM and 125 MB space on hard disk will be required for running the application.
- The system may become slow with the increase in number of records being stored.

Design Details: -The design details include the following

- Static structure: - The static structures of the web application represent the class diagram.
- Behaviour: -The behaviour of the web application explains you the various actions and the flow of the web application.
- User Interface: -The user interface is one of the major things on the web application end, since many users come to a conclusion on the standards and services of the application by looking at it. Having a good UI is very important.
- Components: - This describes a class that includes the attributes and methods. It also says the exceptions that may rise on the mobile application part.

HIGH LEVEL DESIGN

MODULES AND THEIR DESCRIPTOIN

Administrator module

The administration process can be complex and must be properly planned and managed to ensure a successful project. Administrators are a professional team trained to follow a project plan that has been designed specifically for you. Administrator develops software and enhances its process. Administrator in Docs4U project. Administrator has the privilege to create type of users and display list of students and teachers, it can edit the information related to teachers and students. It can delete the user and can view the document uploaded by teachers and students.

Student module

Student has to enter the name and password before he/she proceed to login to his/her page. Student click the download button and download of document starts, after downloading the documents he/she can logout from page.

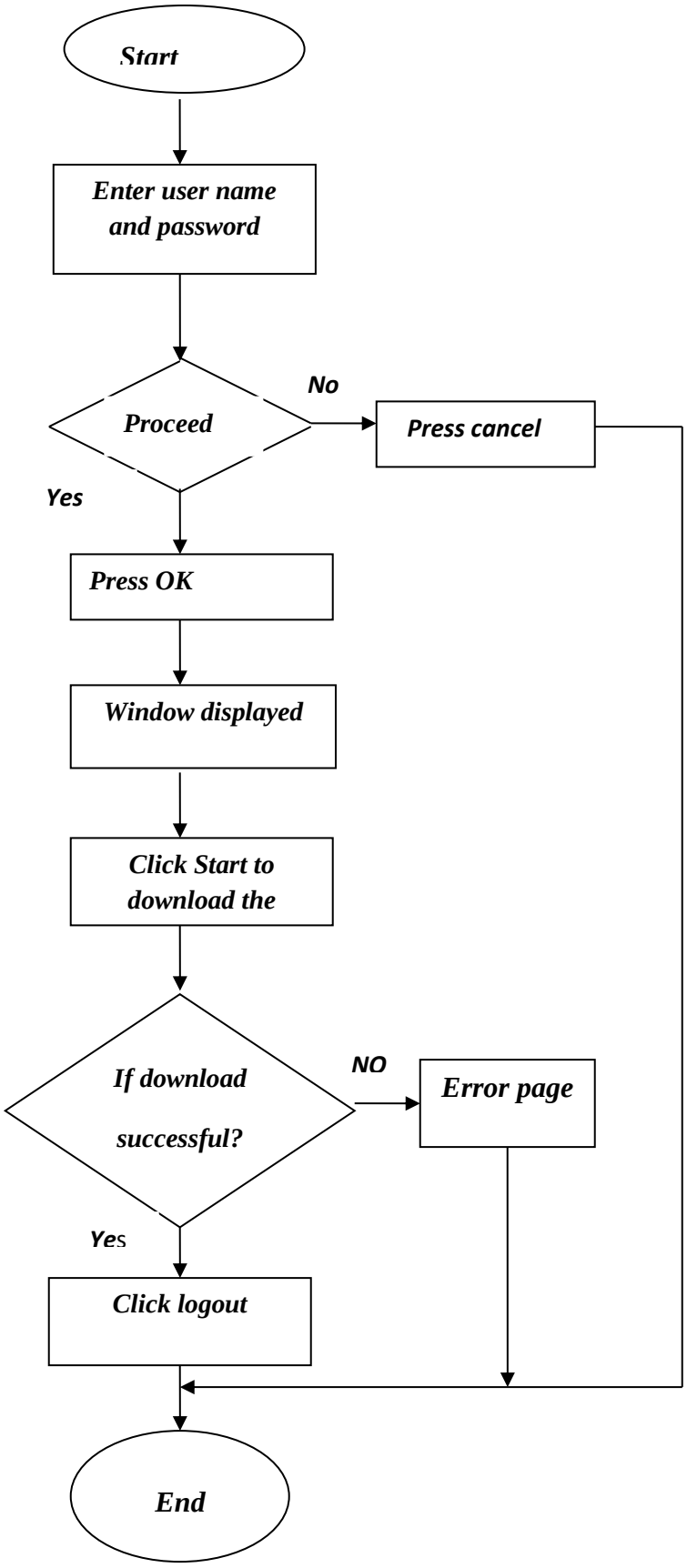
- **Enter name and password.**
- **Select the document.**
- **Download the document.**
- **Logout of the account page.**

Teacher module

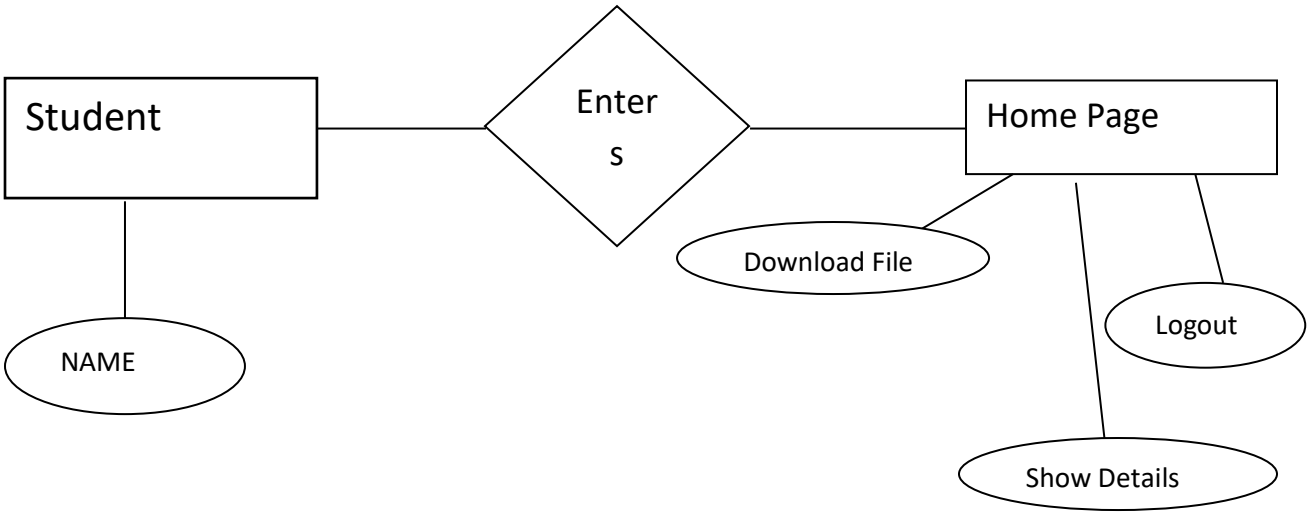
Teacher has to enter the name and password before he/she proceed to login to his/her page. Teacher click on upload button, after uploading the documents he/she can see the details of the uploaded document and can logout from page.

- **Enter name and password.**
- **Select the document.**
- **Upload the document.**
- **View details of uploaded documents.**
- **Logout of the account page.**

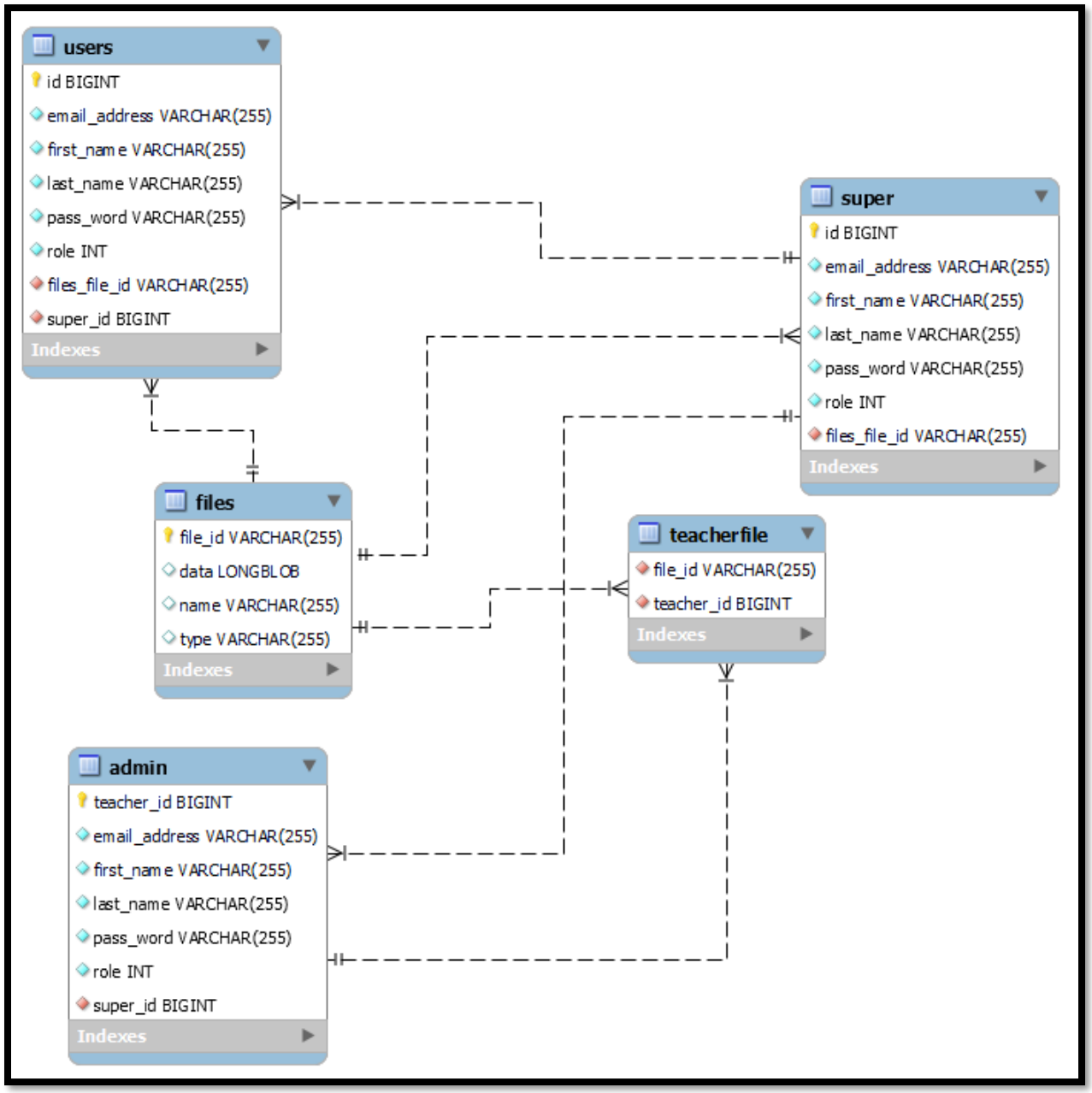
FLOW CHART


Start
Enter user name and password
Proceed
No
Press cancel
Yes
Press OK
Window displayed
Click Start to download the
If download successful?
NO
Error page
Yes
Click logout
End

E-R DIAGRAM

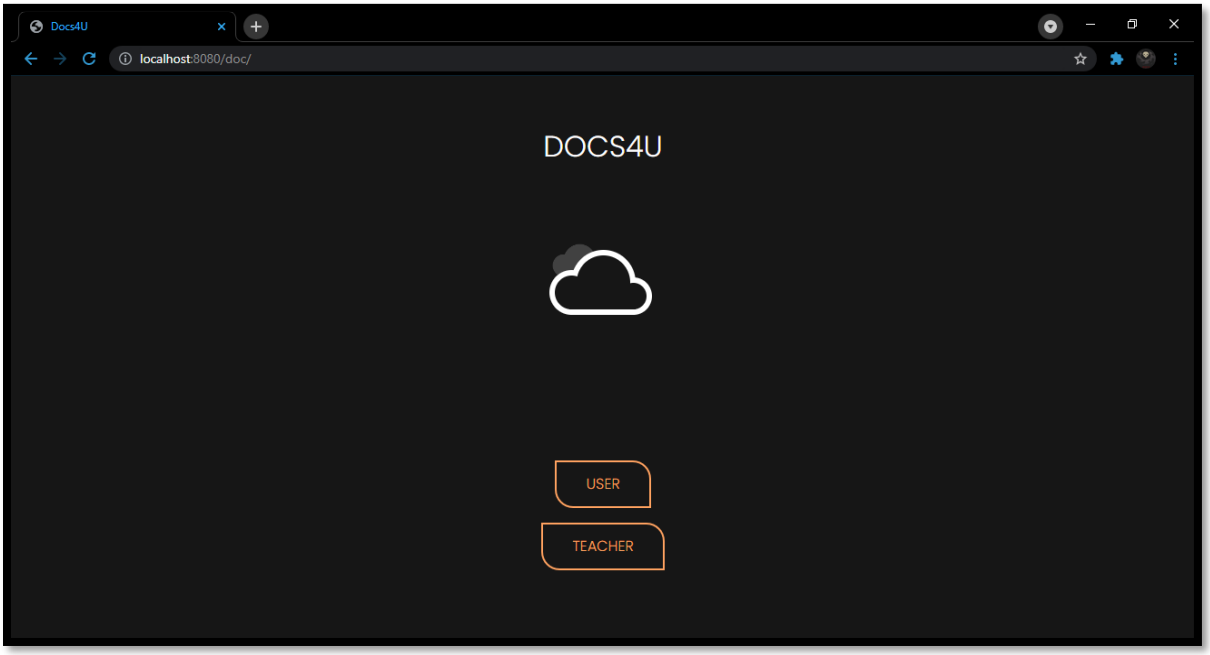

Student
Enter
s
Home Page
NAME
Download File
Logout
Show Details

CLASS DIAGRAM FOR DATABASE:



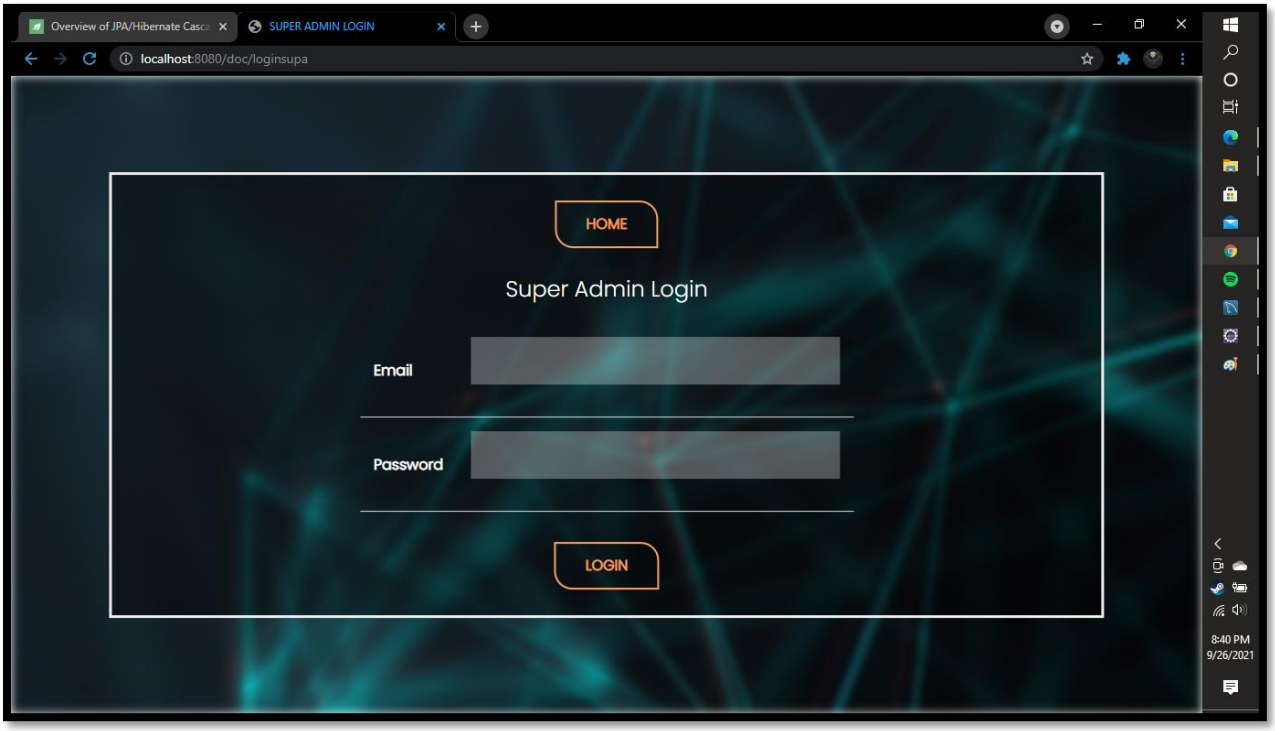
PROJECT DESCRIPTION

Main Page

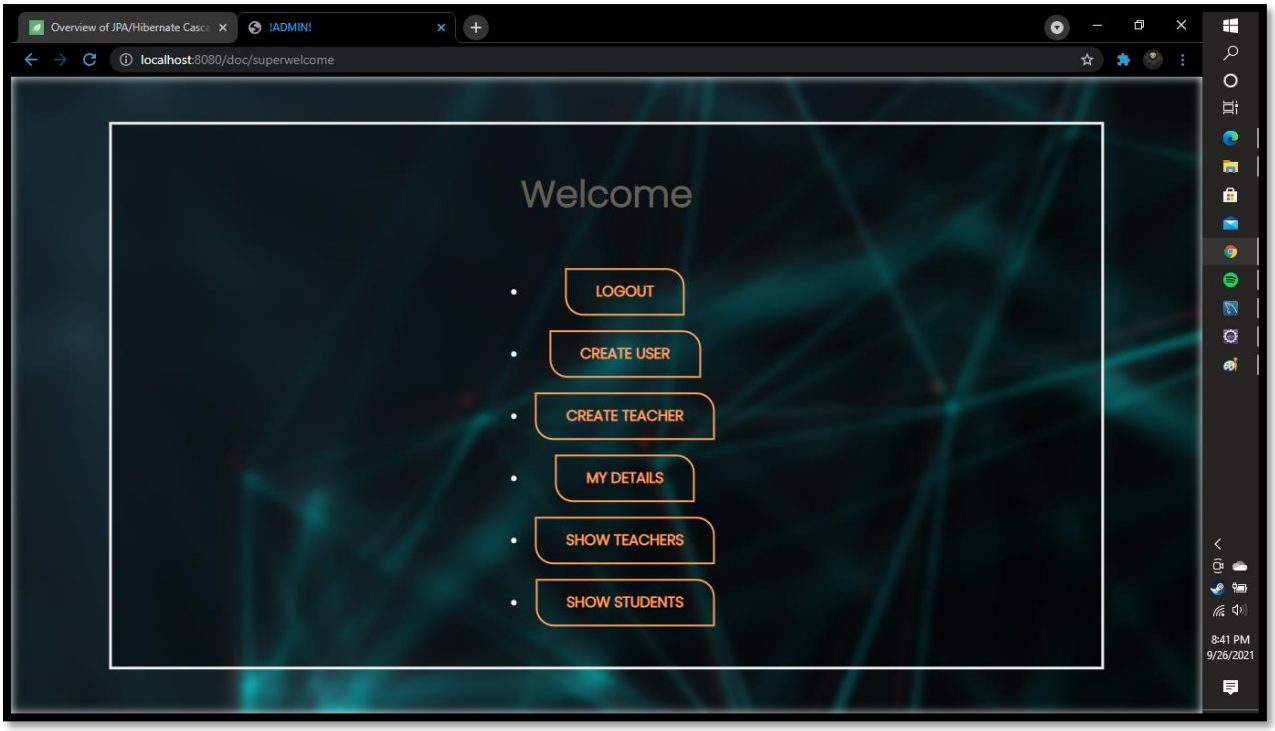


Fig(a). *Main Page*

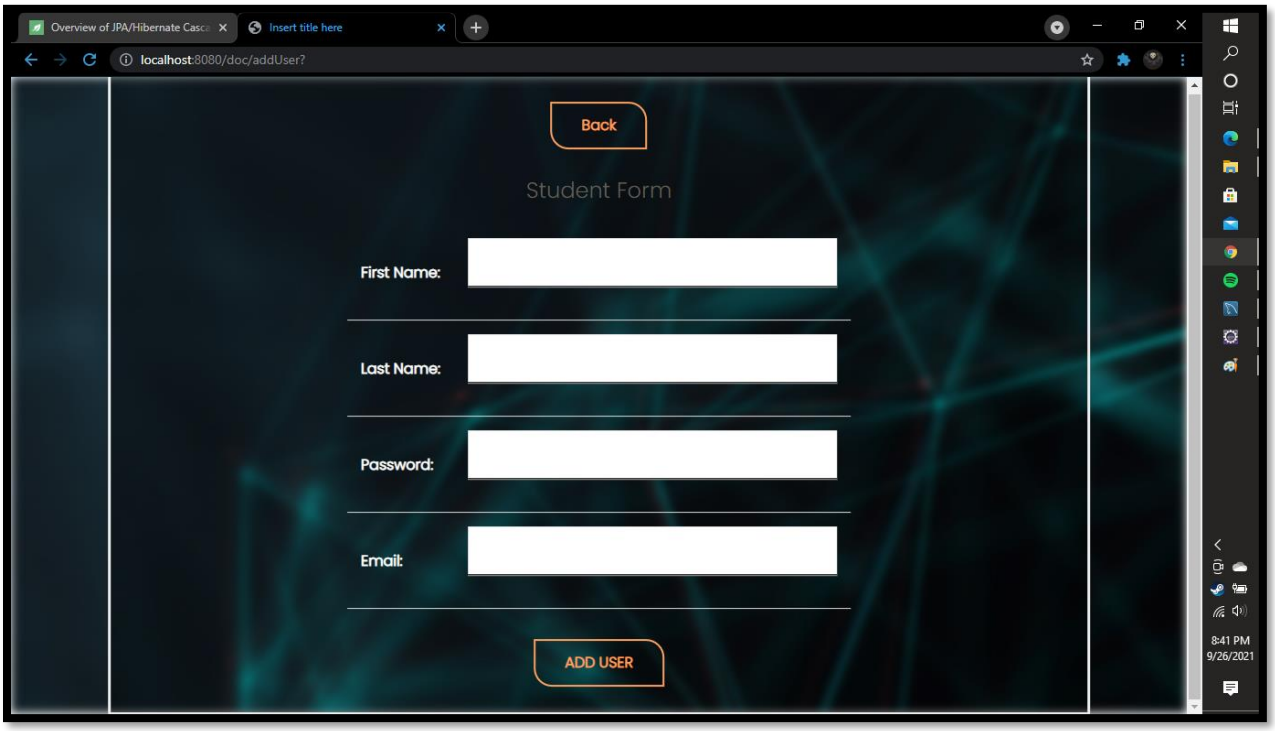
Administrator Module



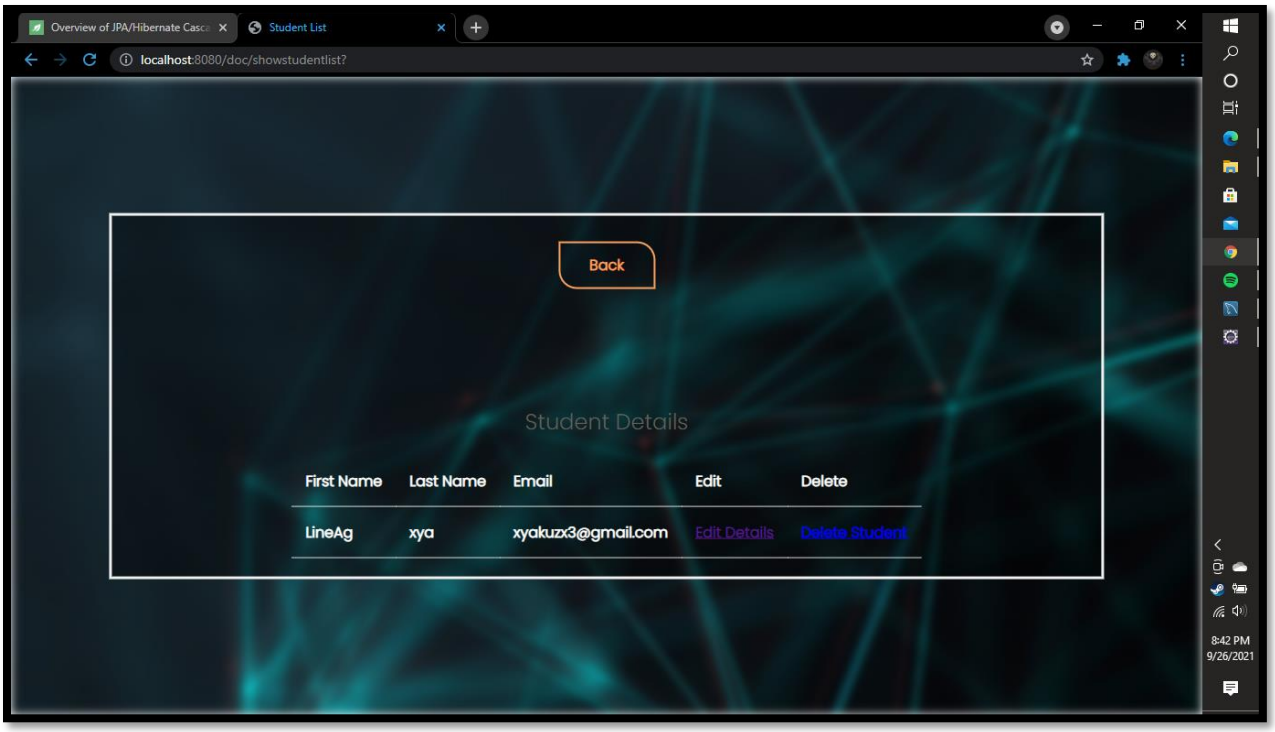
Fig(b). *Admin Login*



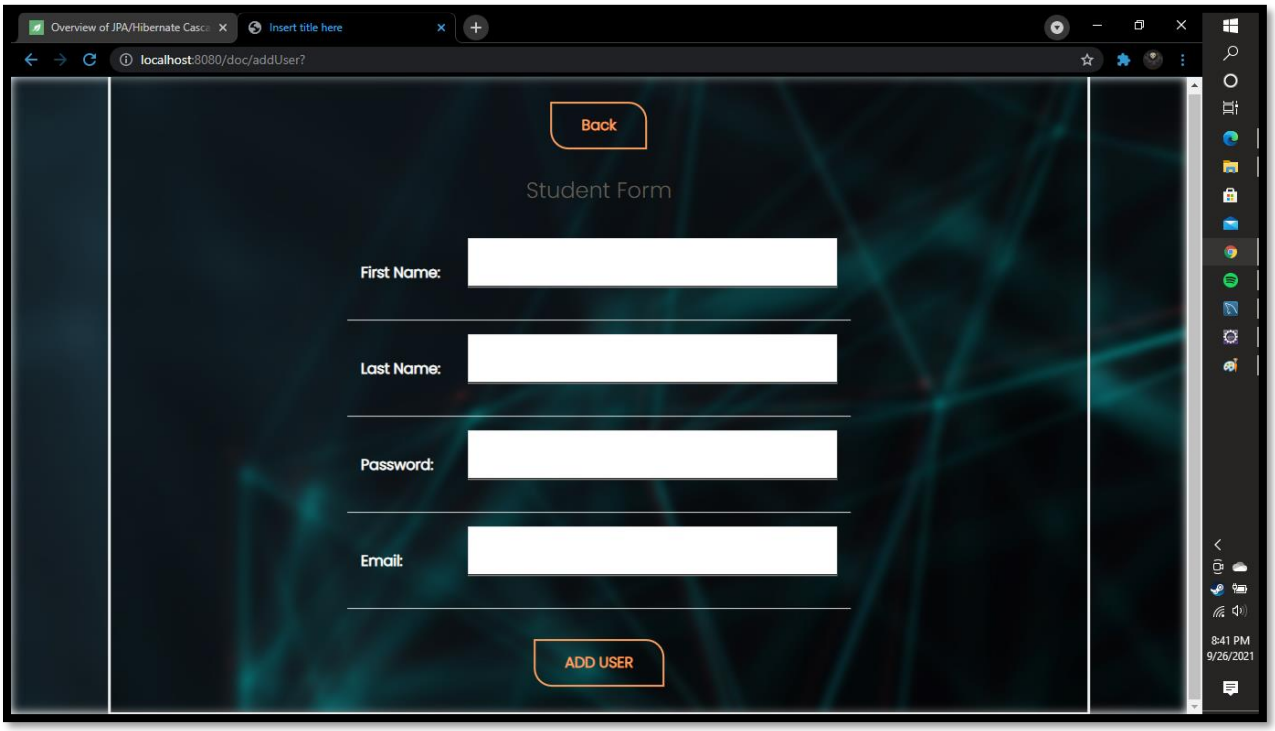
Fig(c). *Admin Welcome*



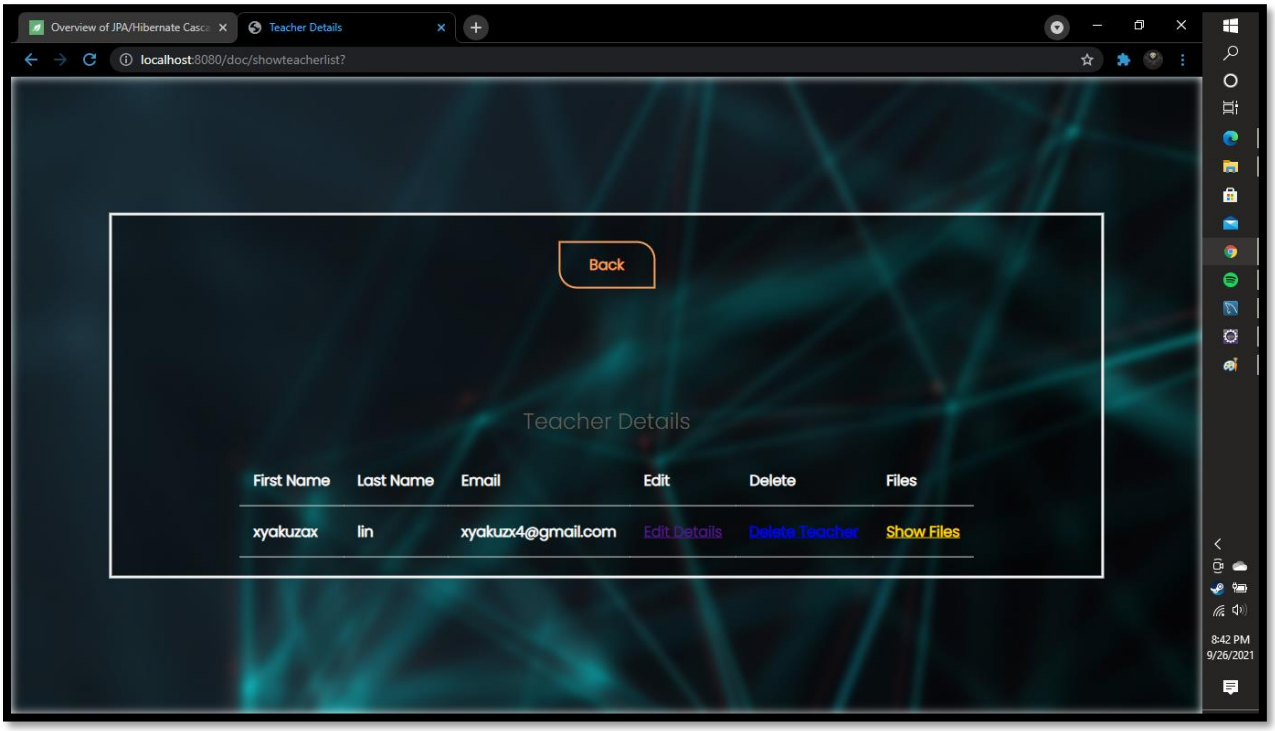
Fig(d). *Creating User*



Fig(e). *Editing Student Details*

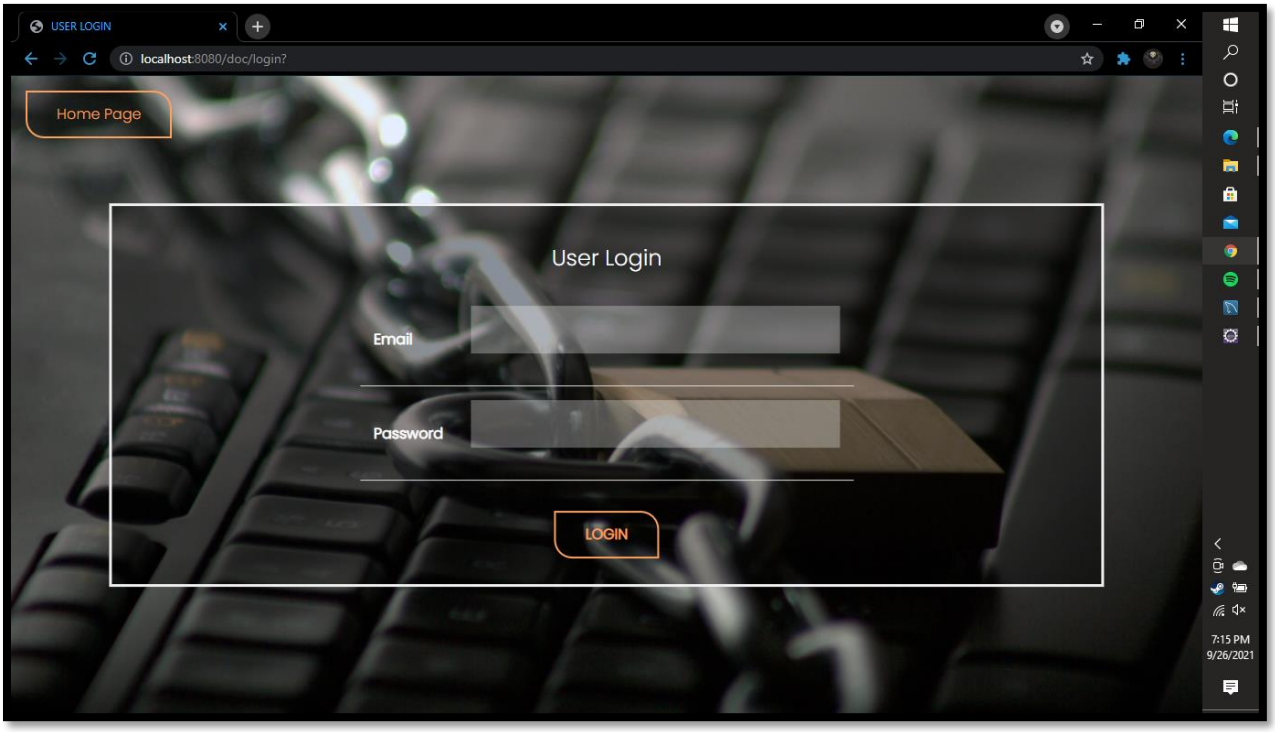


Fig(f). *Creating Teacher*

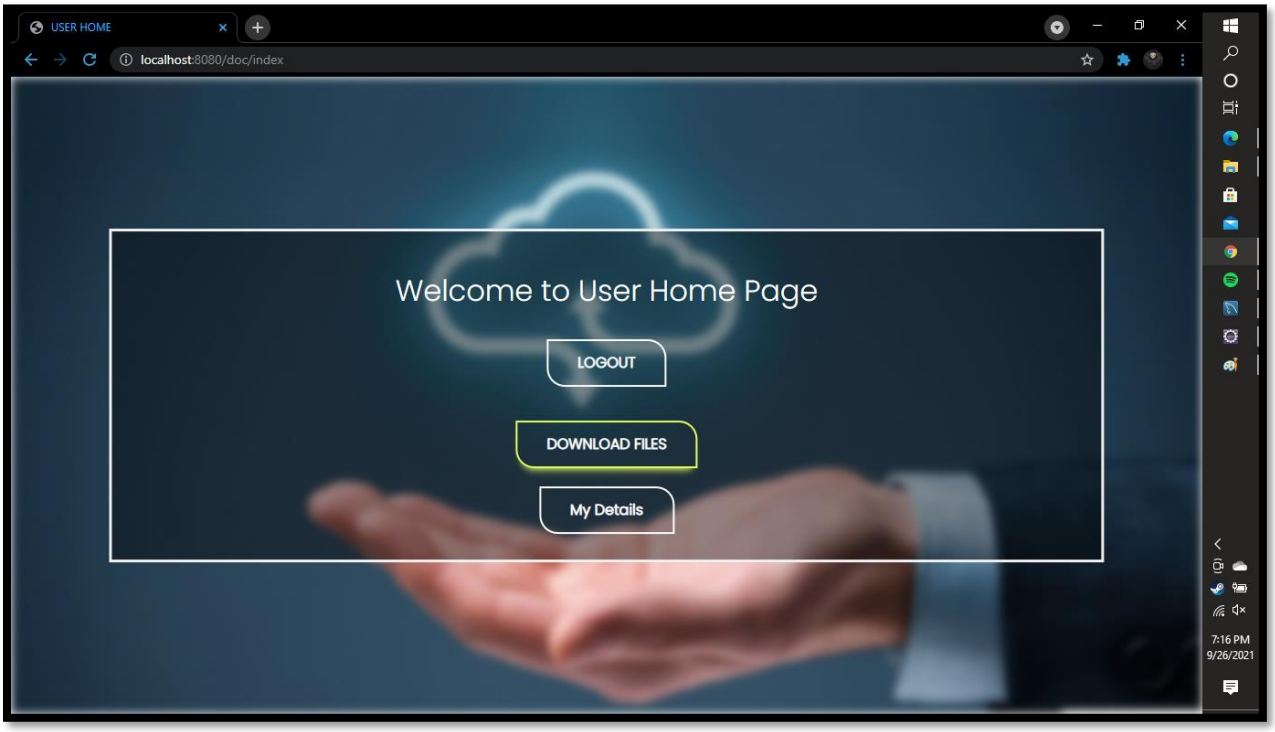


Fig(g). *Editing Teacher Details*

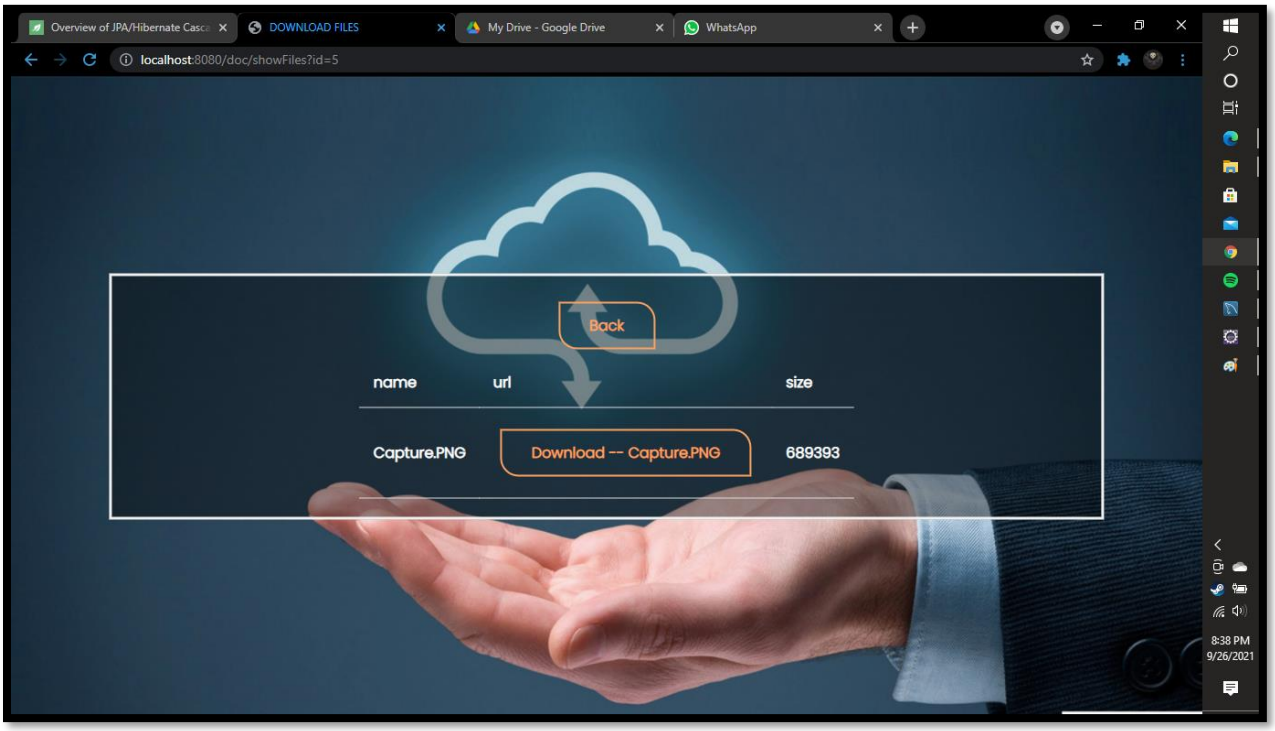
User Module



Fig(h). *User Login*

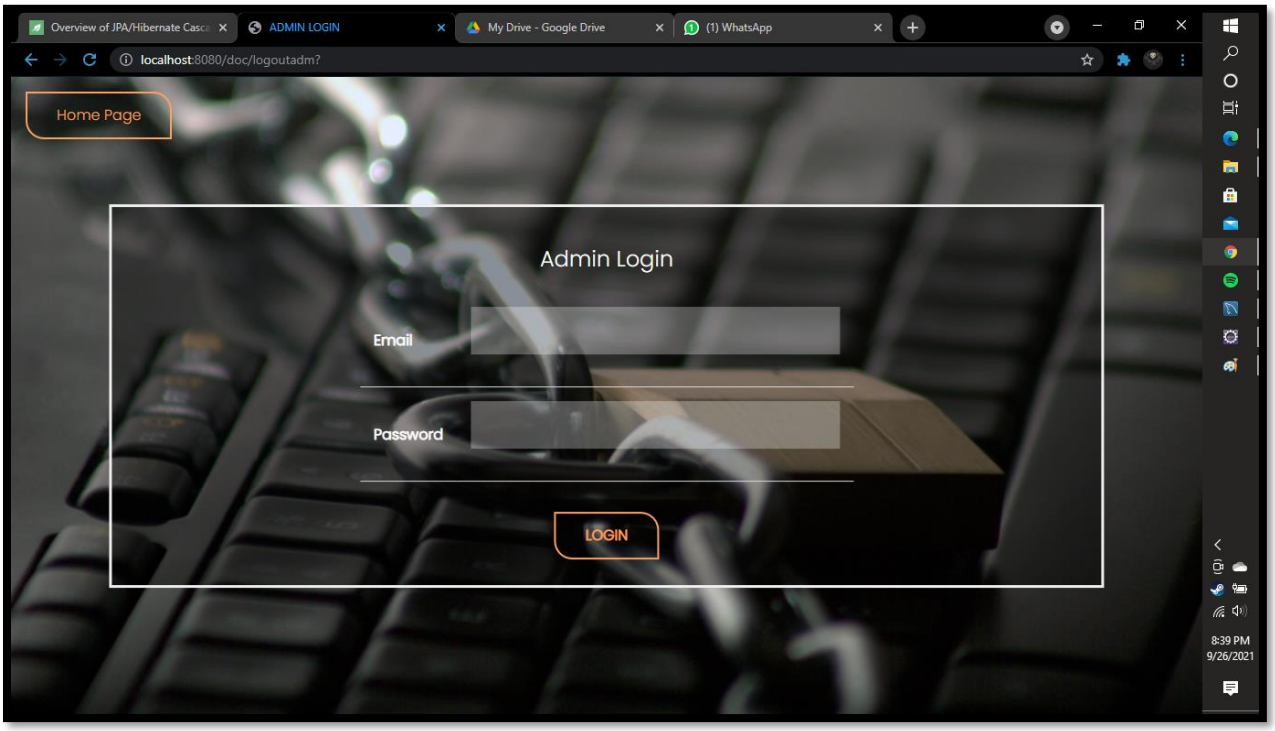


Fig(i). *User Home Page*

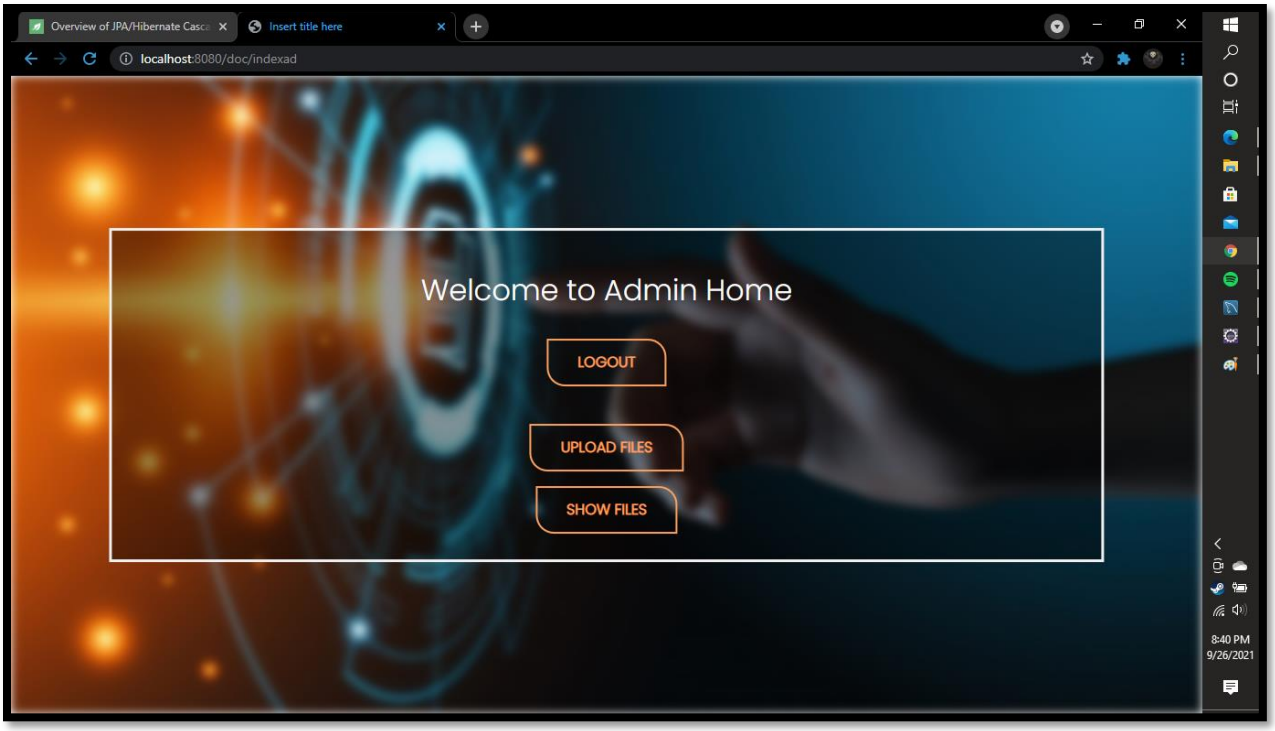


Fig(j). *User Download Page*

Teacher Module



Fig(k). *Teacher Login*

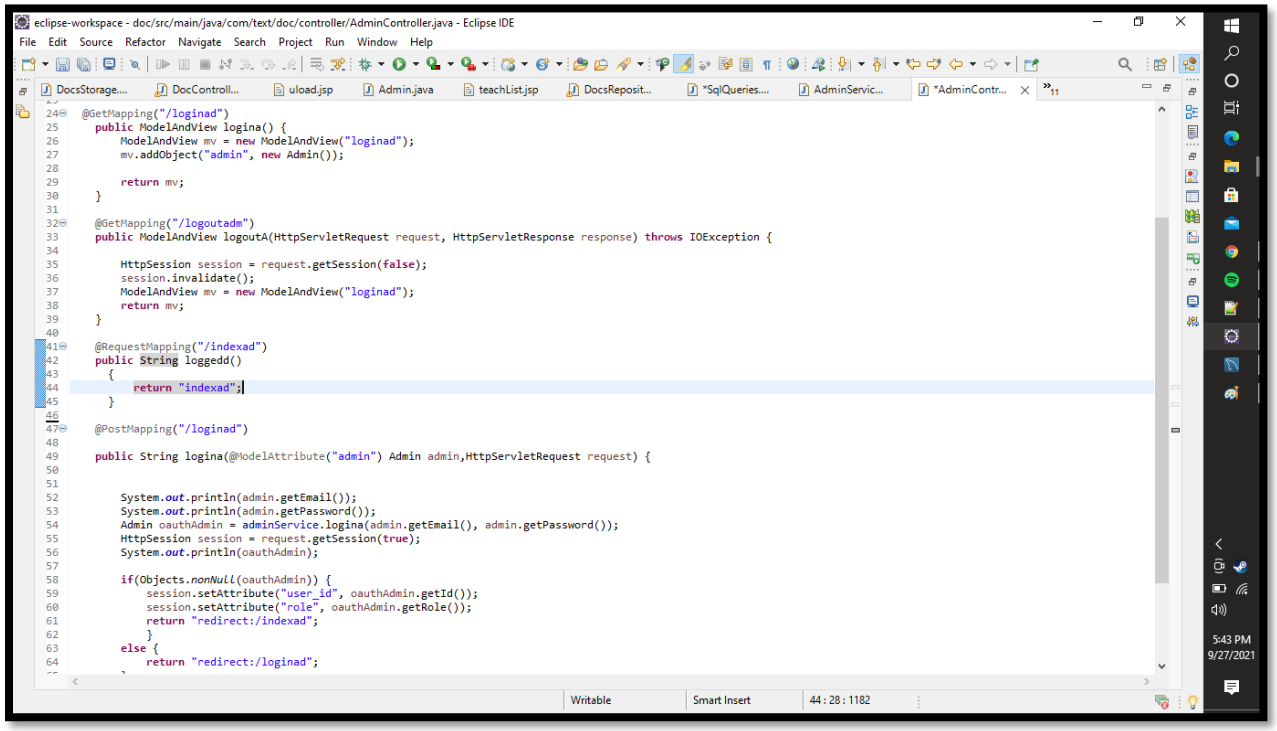


Fig(l). *Teacher Home Page*

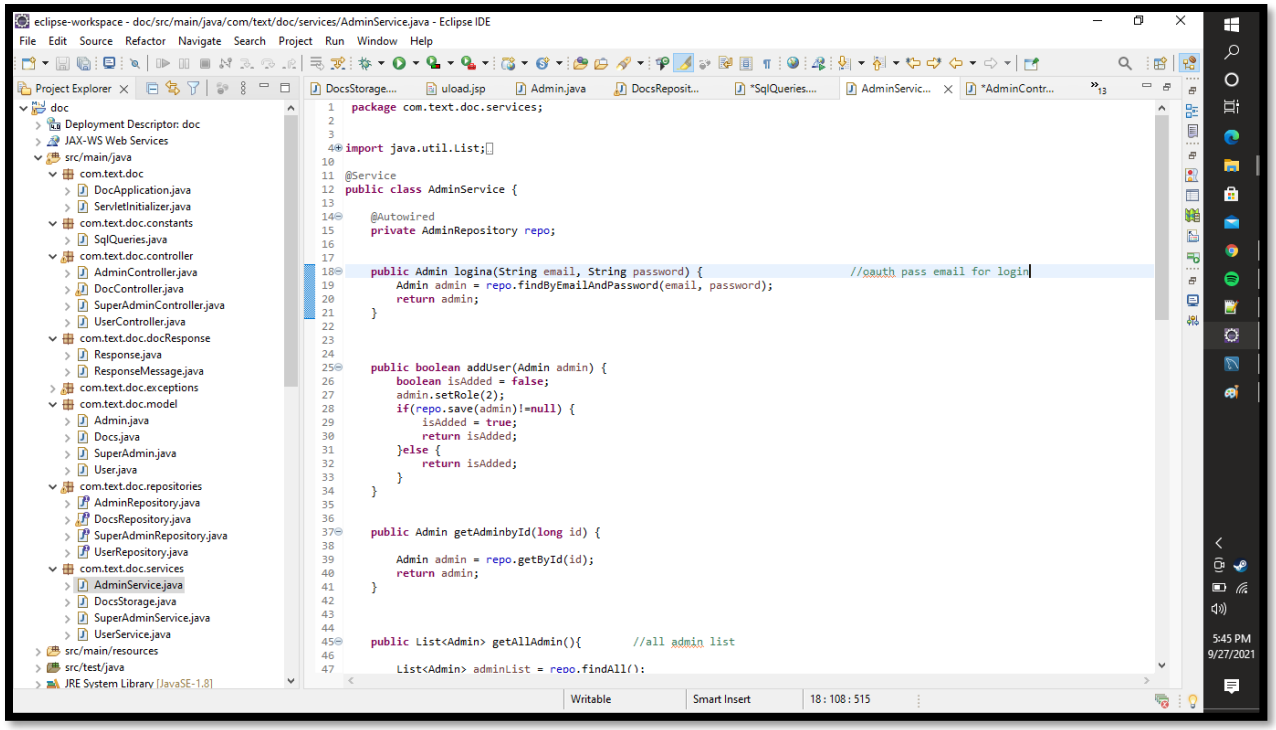
Fig(m). *Teacher upload Page*

Code included in Docs4u: -

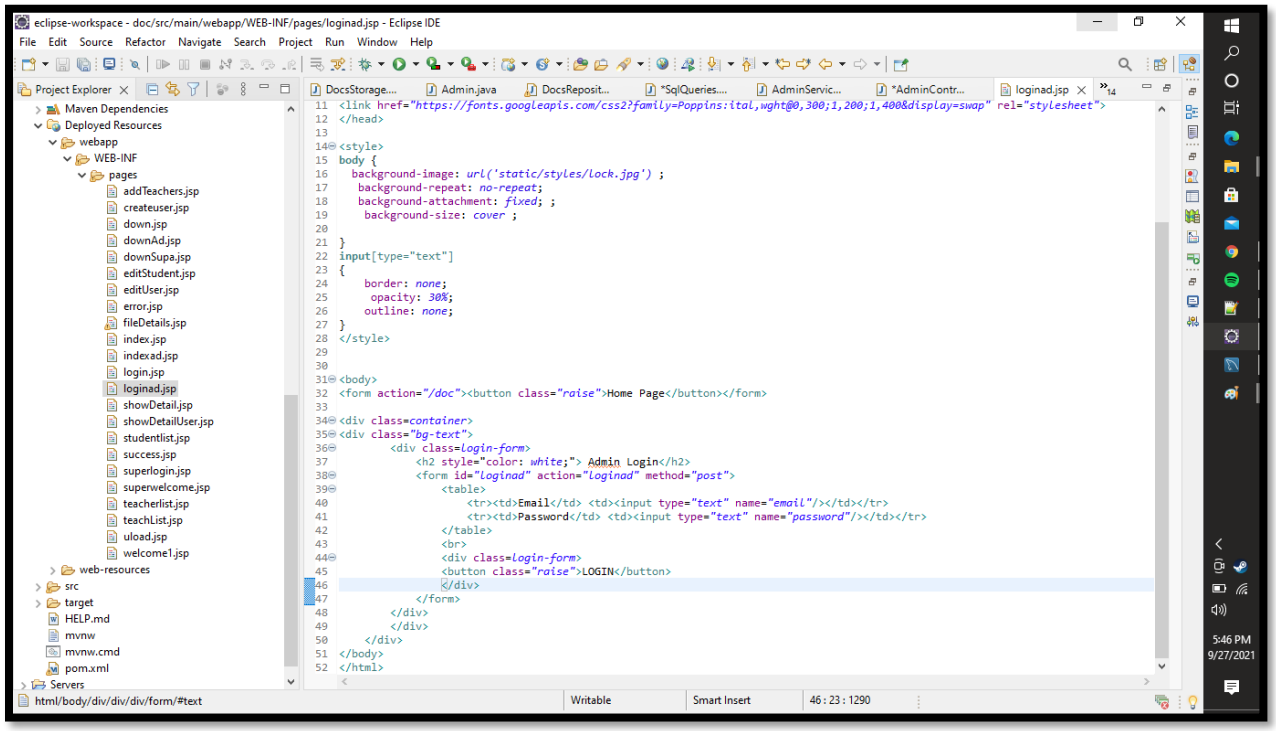
LOGIN LOGIC WITH MAPPING



Fig(a). *Login back-end (teacher)*

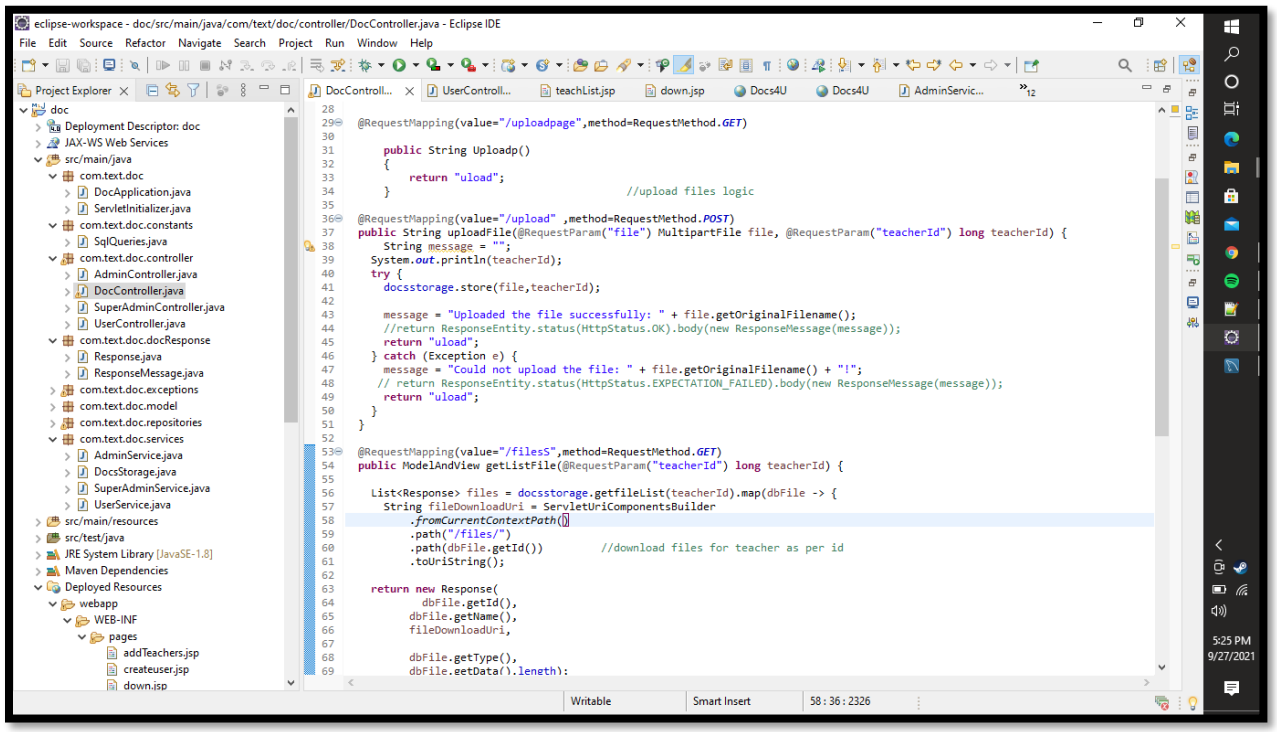


Fig(b). *Fetching email & password for login(repository)*

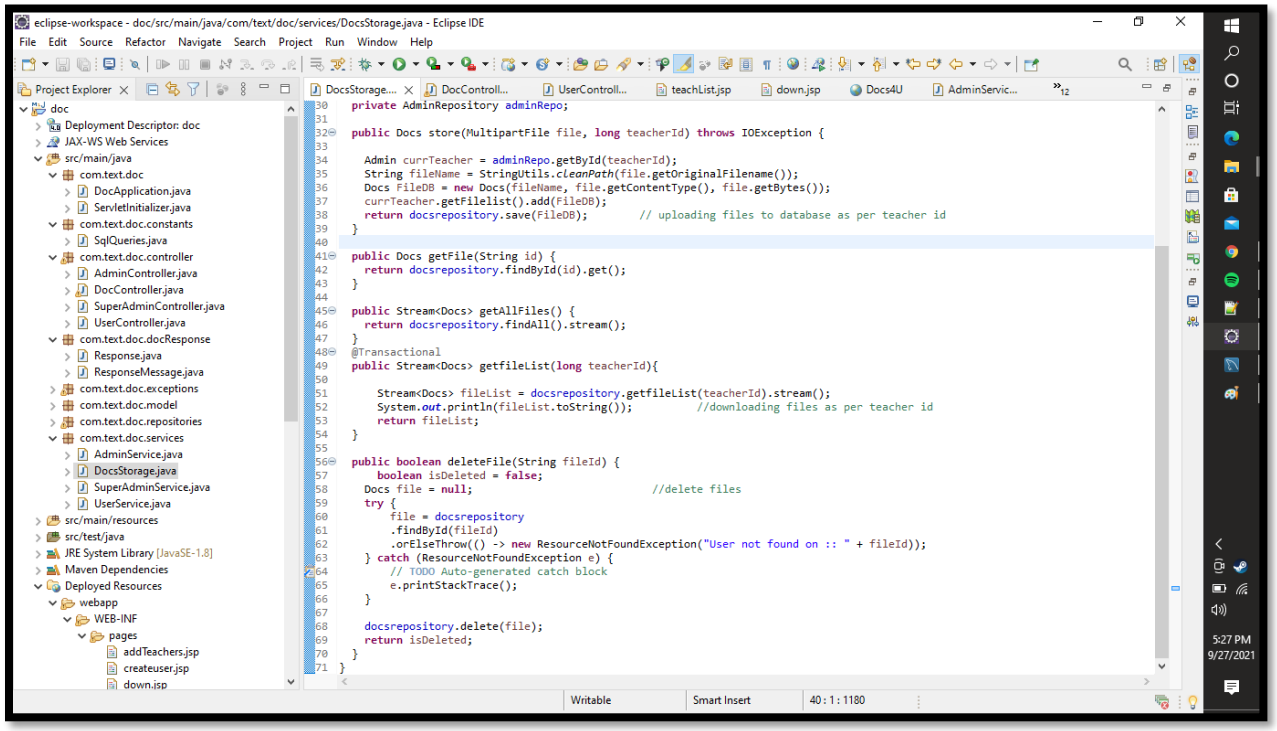


Fig(c). *Login front-end(teacher)*

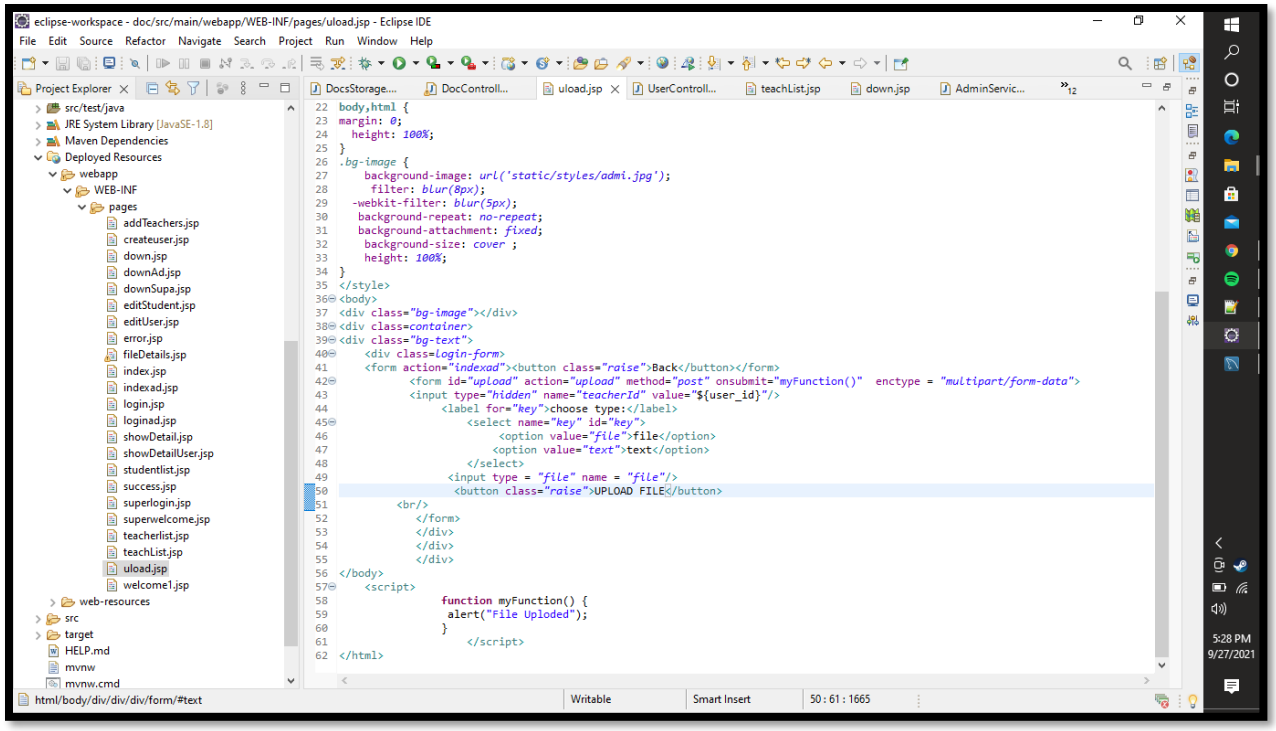
FILES UPLOAD LOGIC WITH MAPPING



Fig(d). *Upload back-end (teacher)*

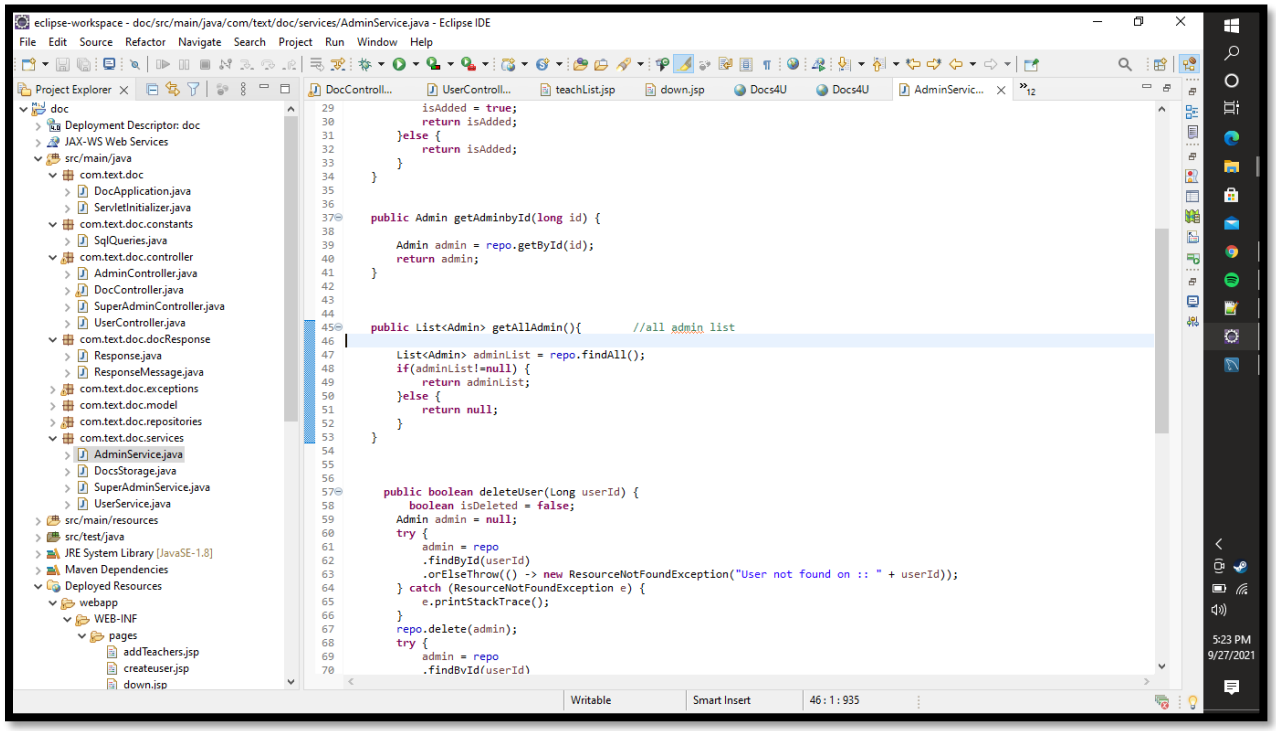


Fig(e). *File's logic: upload download delete*

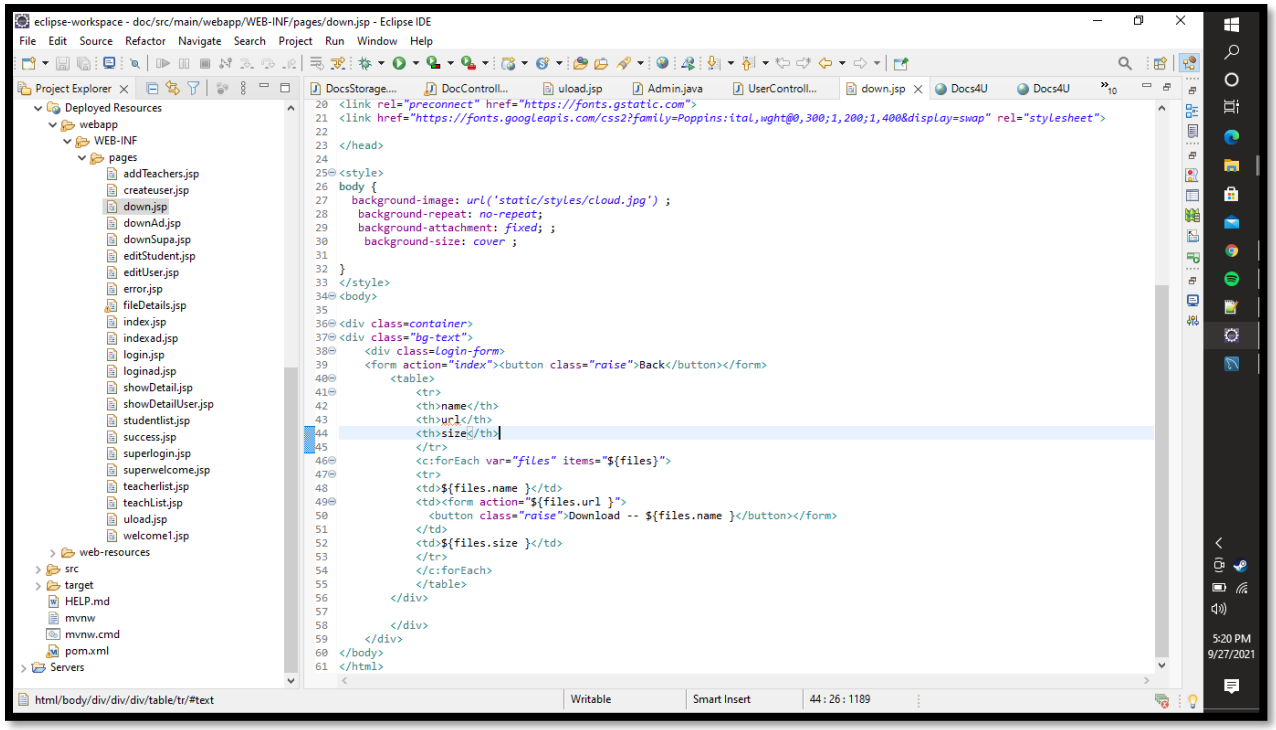


Fig(f). *Upload front-end(mapping)*

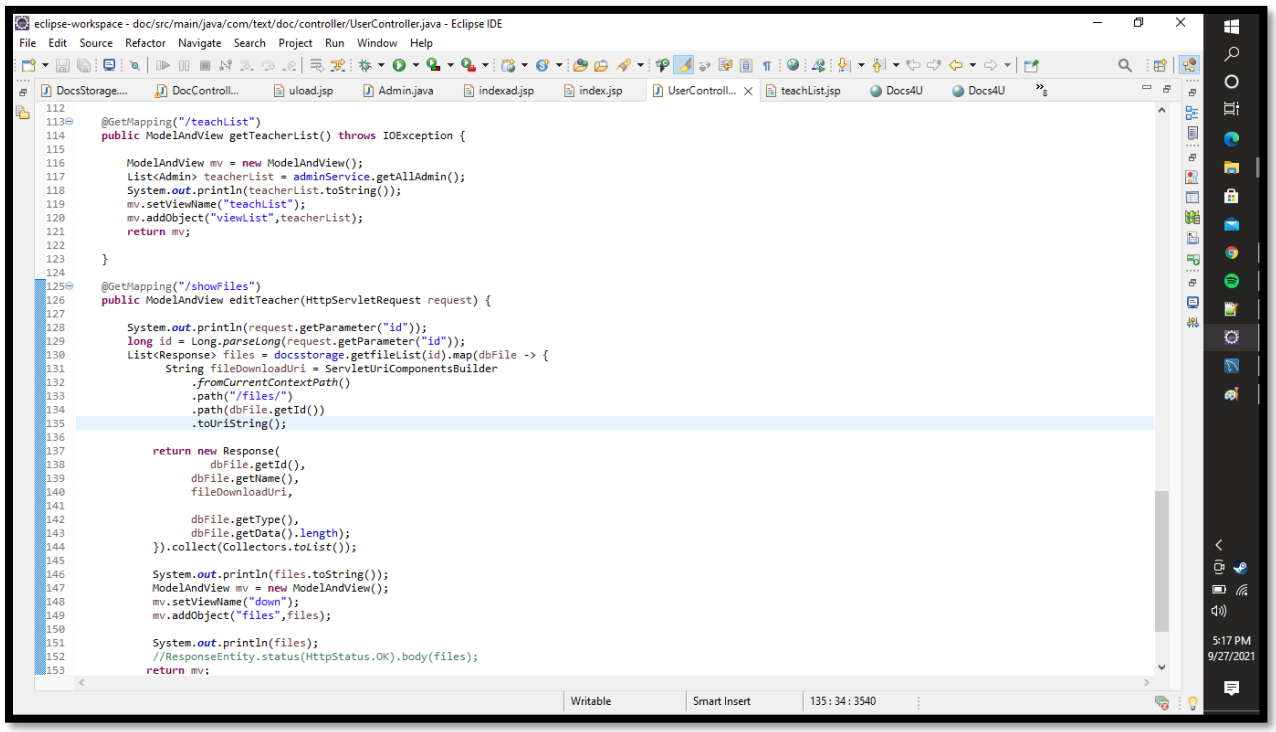
FILES DOWNLAOD LOGIC WITH MAPPING



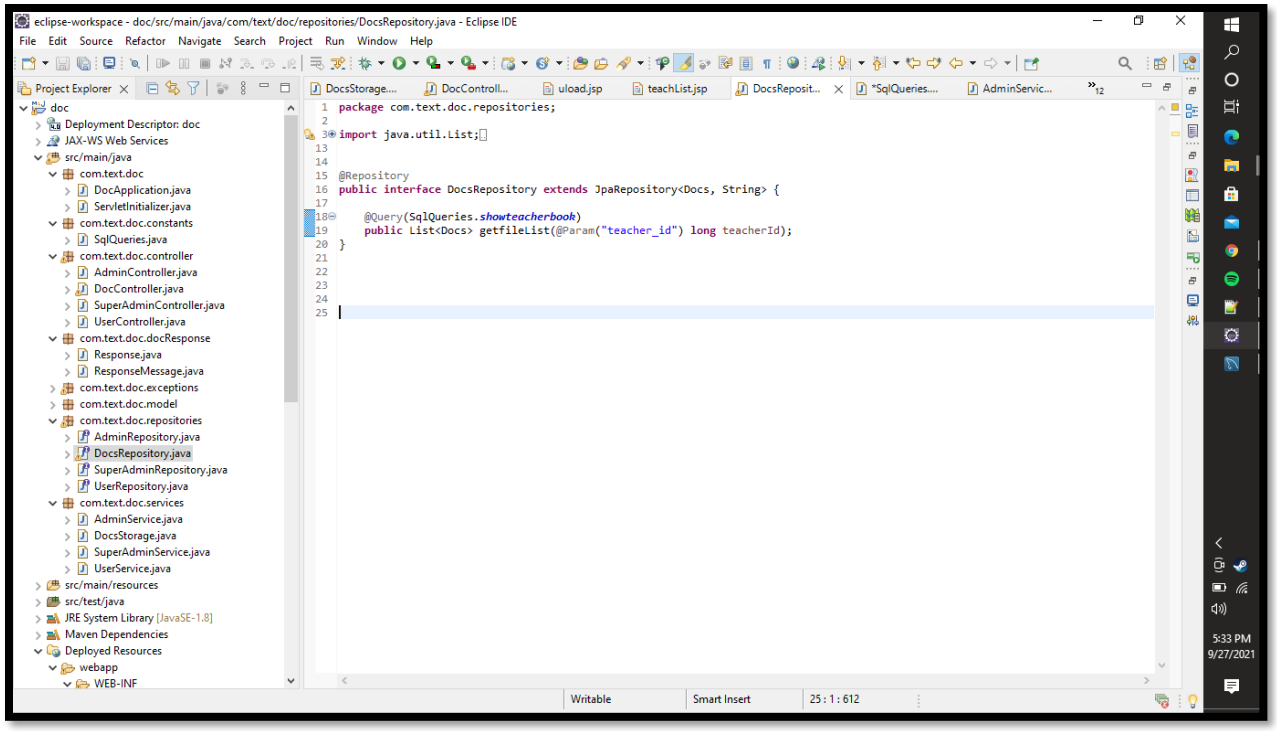
Fig(g). *Fetch Admin list (download files as per teacher list)*



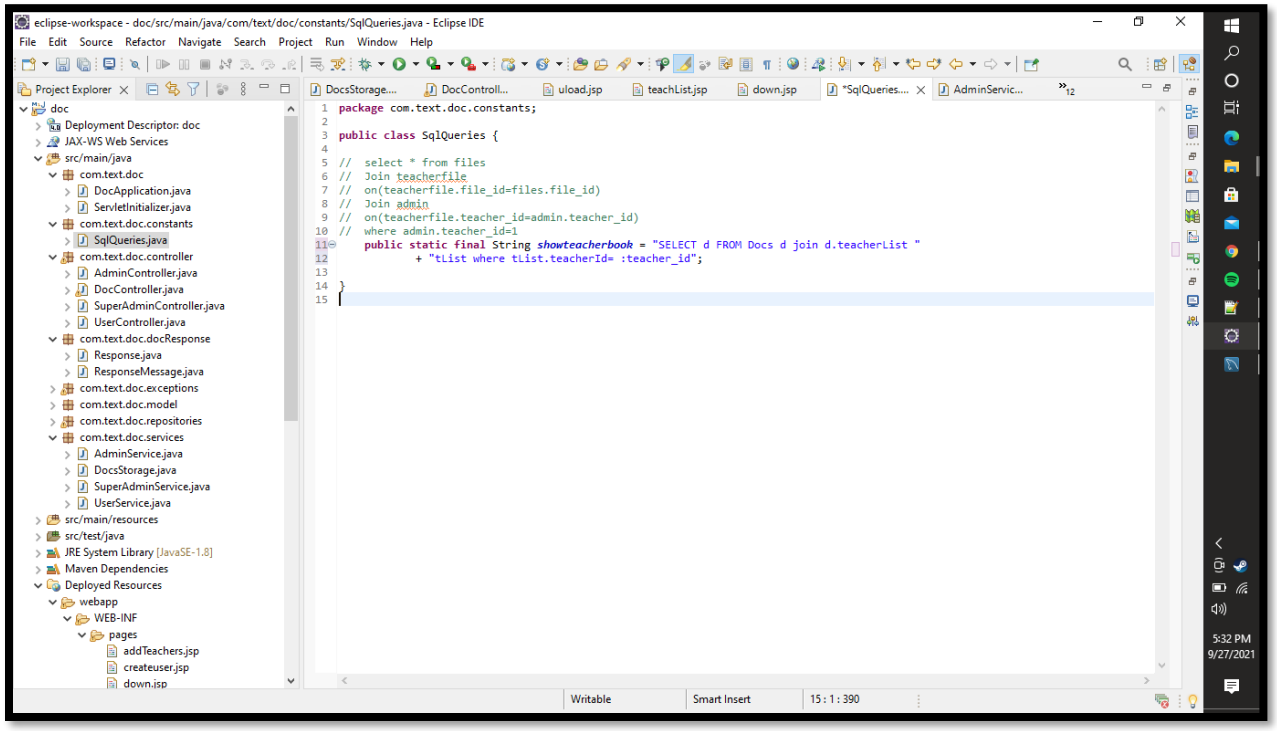
Fig(h). *Download files front-end (mapping)*



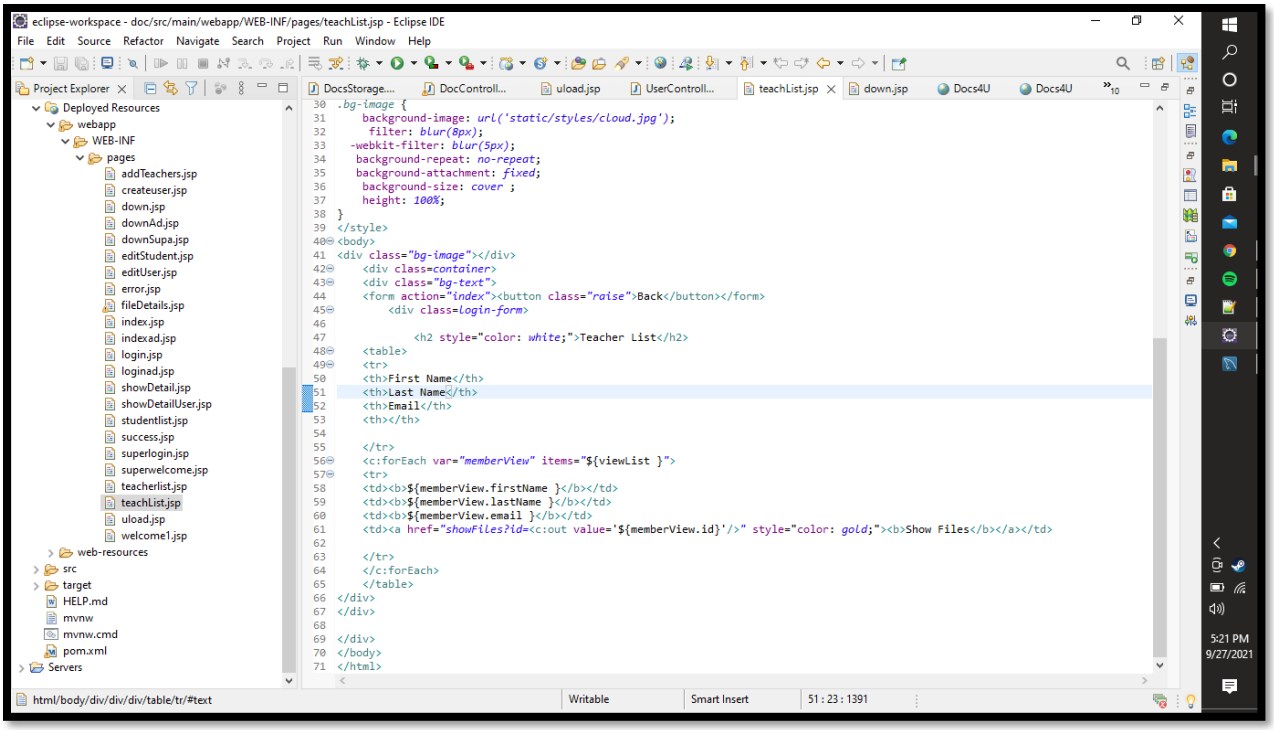
Fig(i). *download files back-end (User)*



Fig(j). *SQL Repository mapping as per teacher's list*



Fig(k). *SQL Query to fetch files as per teacher's list*



Fig(l). *Show files as per teacher's list(Student)*

REVIEW DOCUMENT

Date: 28 September, 2021
Members: Navneet Singh, Garima Tiwari, Piyush Pachpande, Vaibhav Agrawal, Anmol Sharma.

Issue:

Course: Development Advanced Computing (DAC)

LESSONS LEARNT

- **Importance of RESEARCH: -** We have used few technologies in our project, among them JAVA. Java technology is both a programming language and a platform, the Java programming language is a high-level language, high-level Java programming language is a powerful software platform.

- **Team Work: -** By the end of this project we will end up as an effective and coordinating team as we understood the importance of the team work by the guidance of our mentor. Our team is a good combination of challenging and hardworking people. Throughout this project we have learnt a lot about team coordination, planning, presentation and developing personal attitude towards teamwork.

- **Time Management: -** To become successful, one must have good time management as it considered as one of the important qualities in the current competitive world. Keeping our mentor suggestions in mind we were able to implement and manage things in time. Meeting the various deadlines set by the instructor was tough and gave us a valuable experience of how to effectively manage time and as well the mentor's expectations were sometimes very challenging and finally our project timeline was nearly accurate.

- **Authorization &fetching of documents: -** How to send documents across the Server and receive them i.e., saving and retrieving documents from the database and displaying them in the frontend. About authorization and how to implement it

REFERENCES

BOOKS:

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   By: -Herbert Schildt
2. Programming with Java
   By: -E Balagurusamy

WEBSITES:

- **www.javatpoint.com**
- **http://www.w3schools.com/**
- **https://en.wikipedia.org/wiki**