Assignment System Using Cloud

A Project Report submitted in partial fulfillment of the requirements for the award of the degree of

Bachelor of Technology

in

Computer Science and Engineering

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Declaration

We hereby declare that the work which is being presented in the B.Tech. Project **"Assignment System using cloud"**, in partial fulfillment of the requirements for the award of the *Bachelor of Technology* in Computer Science and Engineering and submitted to the Department of Computer Engineering and Applications of GLA University, Mathura, is an authentic record of our own work carried under the supervision of **Mr. Saurabh Singhal (Assistant Professor).**

The contents of this project report, in full or in parts, have not been submitted to any other Institute or University for the award of any degree.

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Certificate

This is to certify that the above statements made by the candidate are

correct to the best of my/our knowledge and belief.

_____

Mr. Saurabh Singhal
Assistant Professor

ACKNOWLEDGEMENT

It gives us a great sense of pleasure to present the report of B.Tech project undertaking during B.Tech 3rd year. This project in itself is an acknowledgement to the inspiration, drive and technical assistance contributed to it by many individuals. I would like to express my thanks to the people who have helped me most throughout my project. A special thank of mine goes to my colleague who helped me out in completing the project, where they all exchanged their own interesting ideas, thoughts and made this possible to complete my project with all accurate information. I wish to thank my college teachers for their personal support or attention who inspired me to go my own way.

We hearty thanks to Mr. Shashi Shekhar, program coordinator, Dept of CEA for providing us with an encouraging platform to develop this project, which thus helped us in shaping our abilities towards a contributive goal. We owe special thanks to Mr. Saurabh Singhal, Assistant Prof., and Dept of CEA for his constant support and guidance throughout the course of work. He has showered us with all his extensive experienced ideas and insight comments at virtually all stages of the project and taught us about the latest industry oriented technologies.

Finally, I also wish to express my sincere thanks to the GLA UNIVERSITY for helping to develop this project.

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ABSTRACT

The aim of this project is of fulfill the basic requirement of students and teacher. They may work together as a team. Basically, it is developed for the students, teachers and also for organization. It provides the newest way to assign the work to students. In this application, teacher assigns the class work to the student with providing the due date of submission. Work can also be submitted after this due date but it marks late and faculty may also reduce the grades. In this, we use cloud the service(S3) to store the files of students so that their data must be maintain at secure place. Due to cloud services, it is easy to upload/download files on cloud via internet so that their files are available to them at any time. It provides attractive interface for the users as per the requirement. Here, it have one more feature which ensures the students that their work not treat as garbage, generally happen in the old class work, so faculty must observe the assignment work carefully. Anyone can ask doubts with their respective faculty through private comment section. It increases the portability of doing the work rather than notebook because we generally less comfortable to write more on notebooks and it is also time consuming process. To run this application, there is no need of providing the essential information by the user. Today is online word where everything is done with internet, so why not education can be online.

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Chapter 1
INTRODUCTION

1.1 INTRODUCTION

The focus of this project is to managing the class information in easiest way for teachers and student itself.

Assignment Management System is a desktop application developed using java swing at front end and xampp server at back end. Through this system teacher can assign work to any student online and can also check the status of the assigned work. Using this system management team can take decision on time after checking the current status of the assigned work. This system helps the students and teacher to complete work on time as student can check the status of assigned work any time. Assignment management system is developed to manage the work assigning process online.

1.2 Overview

This project is developed to automate the assignment task. Using this application teacher can assign work to any student online and teacher can update the status of assigned work online. Using this software an employee can perform assignment related work online.

This project is developed under the guidance of Google classroom that is also class management application. Basically, it is developed for college purpose but it can be used for any large organization that wants to manage their employee information in easiest way.

1.3 Motivation

The motivation behind this project to simplify work of teachers and students so that they teacher can manage the class information at any time. Through, this application any organization can maintain their employee information without having more staff for work.

1.4 Objective

The main objective of this software is to automate the assignment process of work. Using this software an employee/teacher can perform assignment related work online. This Assignment Management system is developed to remove the drawbacks of the existing system. In this system teacher don't need to call a meeting to assign a job to student. User can also trace the progress of the assignment online. Using this system company can improve their work efficiency. This system can also improve the productivity of employees by completing the work on time.

1.5 Existing System:

There are a lot of loop holes in existing system that is carried out in this project. In existing System, if manager/teacher wants to assign job to employee/student then he can do it manually means he have to call a meeting and assign the job. In present system tracing the work status is also very time consuming. This procedure is very time consuming and reduces the overall productivity of the employees as well as the company.

This assignment management system is developed to automate assignment process and to trace the work status online. User can also measure the employee efficiency regarding the work completion on time.

1.6 Contribution

This section tells about the contribution of each team members.
   i.   **Mohan Agrawal**: Mohan developed the authentication system for entering into application. Authentication contains the login page and signup page.
   ii.   **Udit Aggarwal**: Udit maintains the teacher's data in the application like how the class is being created by teachers and how they give grades to students.
   iii. **Madan Mohan**: Madan maintains data related to the students such that how students join the classes and how they submit the work.

Chapter 2
Software Requirement & Analysis

2.1 INTRODUCTION

The system objectives outlined during the feasibility study served as the basis from which the work of system design was initiated. Much of the activities involved at this stage were of technical nature requiring a certain degree of experience in designing systems sound knowledge of computer related technology and through understanding of computers available in the market and the various facilities provided by the vendors. Nevertheless, a system could not be designed in isolation without the active involvement of the user. The user had a vital role to play at this stage too.

Data collected during feasibility study was utilized systematically during the system design. Designing a system is a creative process which calls for logical as well as lateral thinking Logical approach involves systematic moves towards the end product keeping in mind the capabilities of the personnel and the equipment at each design making step.

2.2 Feasibility Study

Here, I will carry out a study to gain an understanding of the customers (tenants) current system and problems experienced in this system through interviews, observations, and participations. I will use the obtained data to determine the viability of the system being proposed in terms of technical, economic and social feasibility. 3

2.3 Requirement Engineering

Systematic requirements analysis is also known as requirements engineering. It is sometimes referred to loosely by names such as requirements gathering, requirements capture, or requirements specification. The term requirements analysis can also be applied specifically to the analysis proper, as opposed to elicitation or documentation of the requirements, for instance.

Requirement engineering according to Lap ante (2007) is "a sub discipline of systems engineering and software engineering that is concerned with determining the goals, functions, and constraints of hardware and software systems. In some life cycle models, the requirement engineering process begins with a feasibility study activity, which leads to a feasibility report. If the feasibility study suggests that the product should be developed, then requirement analysis can begin.

2.3.1 User Requirements

It entailed user involvement and statements of facts and assumptions that define the expectations of the system in terms of mission objectives, environment, constraints and measures of effectiveness and suitability. Basically the users:

i) A system that improves on the efficiency of information storage and retrieval.

ii) A system that is easy to learn and use.

iii) A system that is fast in processing uploading files.

iv) A system that is flexible, safe and convenient.

v) A system that find easily.

2.3.2 Users

There are basically two users for this application.

1. **Teacher/manager:** These people assign the work to their students/employee with the help of application. Teacher is able to see the uploaded and can give the feedback in terms of grades.

2. **Students/employee:** Students upload the work profile to the teachers and this profile is secure and accessible from anywhere.

2.4 HARDWARE AND SOFTWARE REQUIREMENT

❖ Hardware Requirement:

➤ 4GB RAM

➤ At least i3 processor

➤ 500GB HDD

❖ Software Requirement:

➤ Eclipse IDE

➤ Xampp server

❖Technologies used:

➤ Java Swing

➤ MySql Database

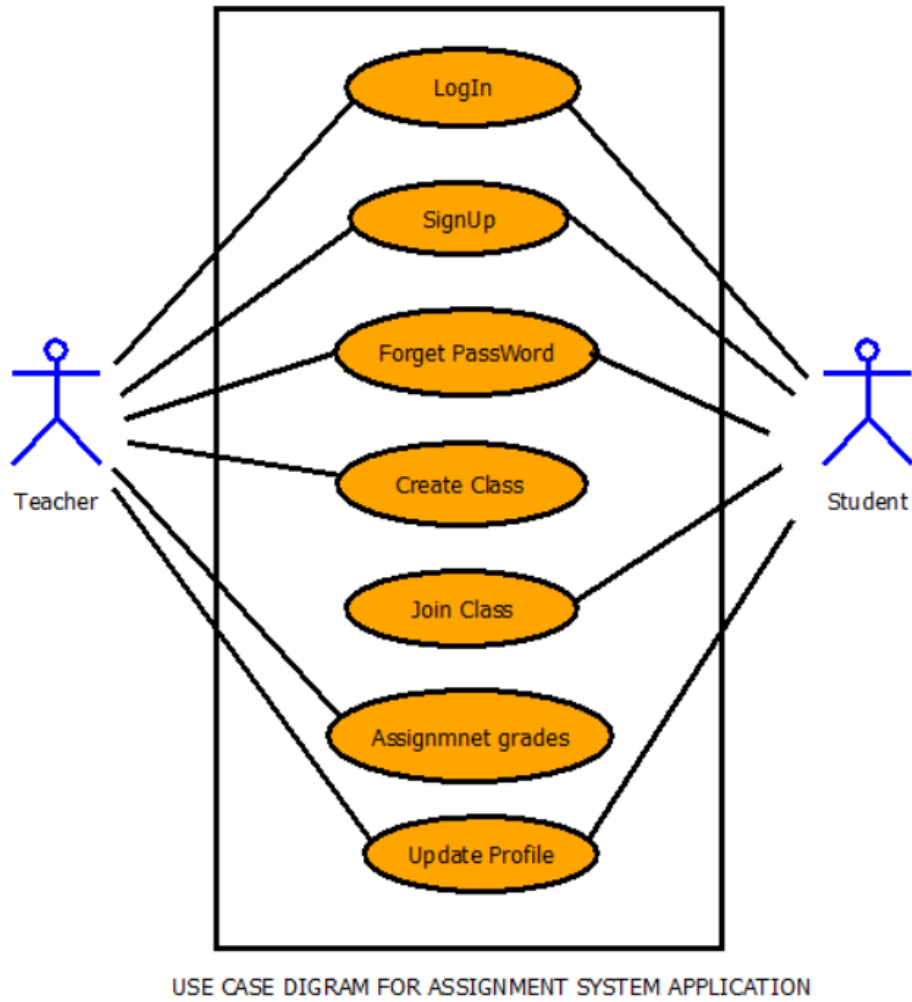➤ S3(Simple storage service)

SOFTWARE DESIGN

3.1 Use case Diagram:

USE CASE DIGRAM FOR ASSIGNMENT SYSTEM APPLICATION

Fig 3.1: use case diagram

3.2 DFD Level-0 Diagram:
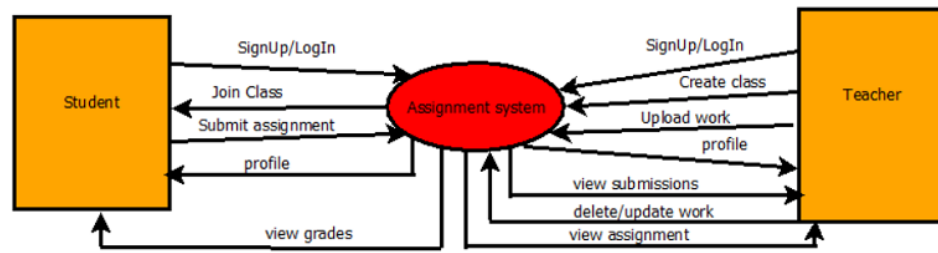
Fig 3.2: DFD Level-0 diagram

3.3 DFD Level-1 Diagram:
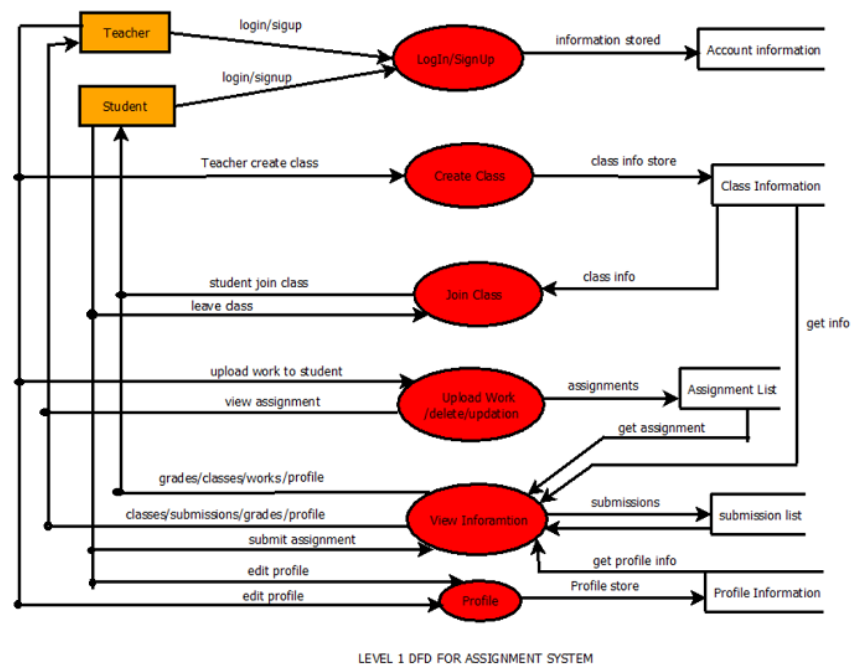
Fig 3.3: DFD Level-1 diagram

3.4 ER Diagram:
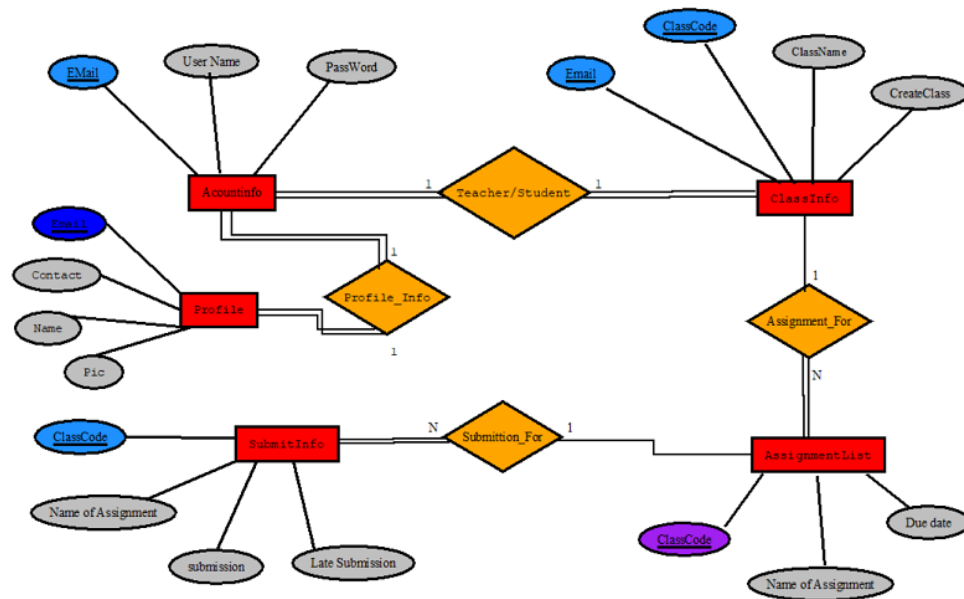
Fig 3.4: ER diagram

3.5 Class Diagram:
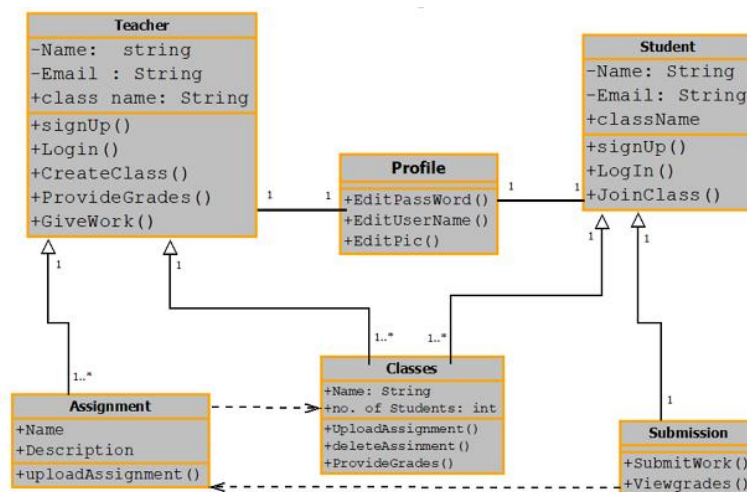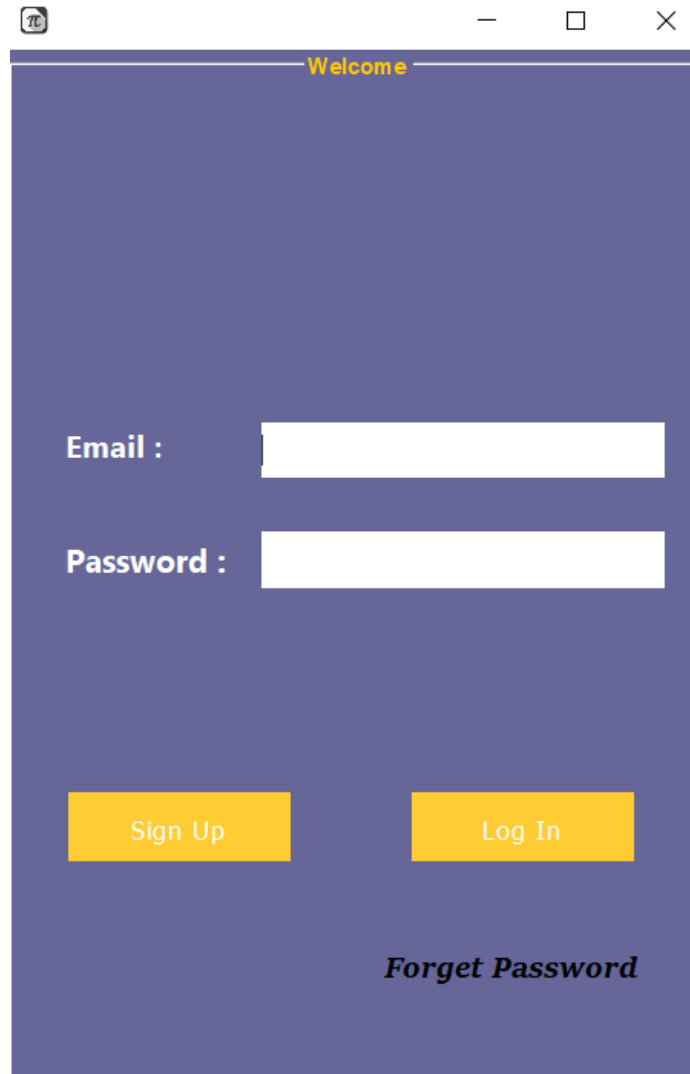
Fig 3.5: Class diagram

Chapter 4
IMPLEMENTATION & USER UI

4.1 Login Page

Fig 4.1: Login Page

4.2 Sign Page

Fig 4.2: Signup Page

4.3 Dashboard
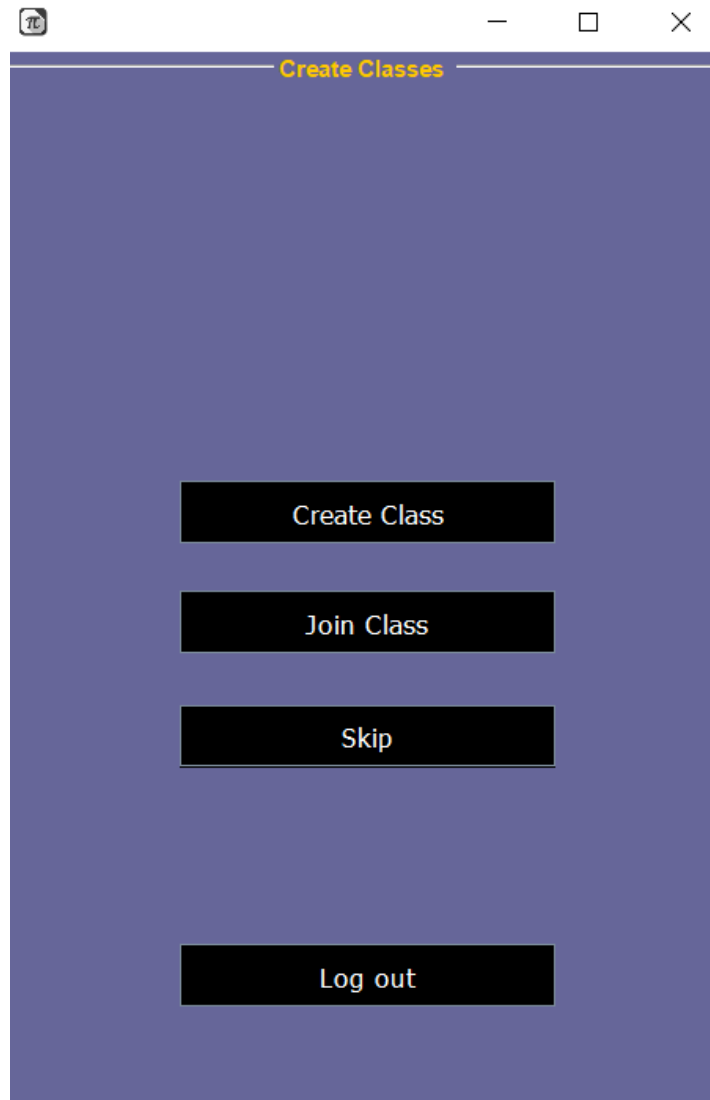
Fig 4.3: Dashboard

4.4 Student Portal
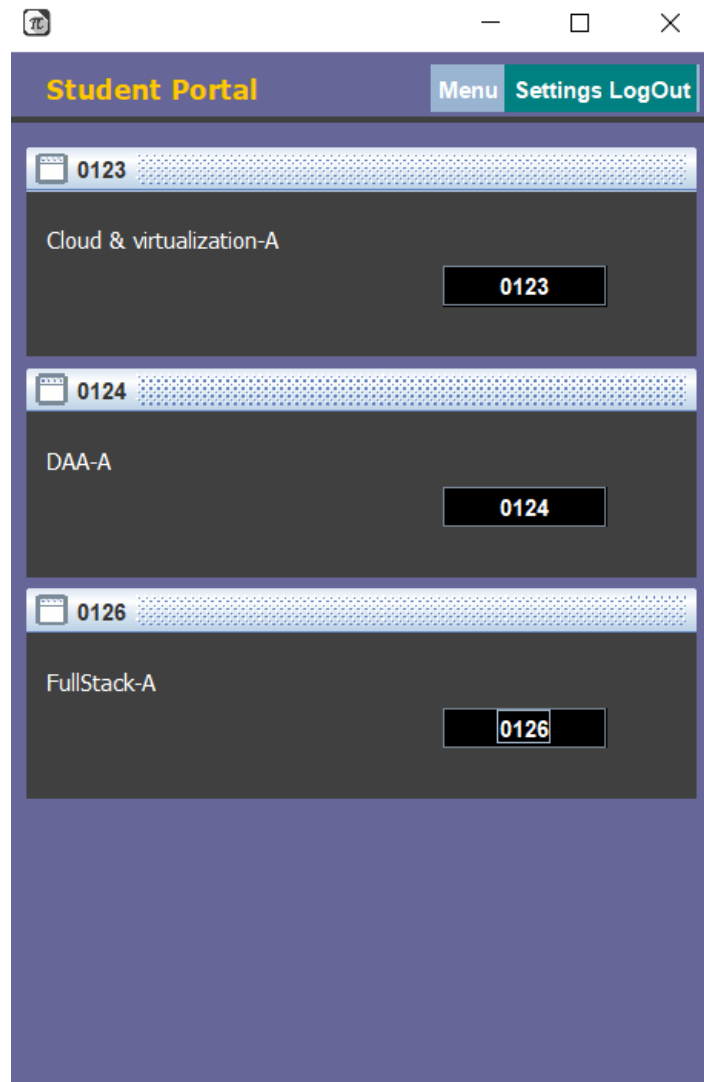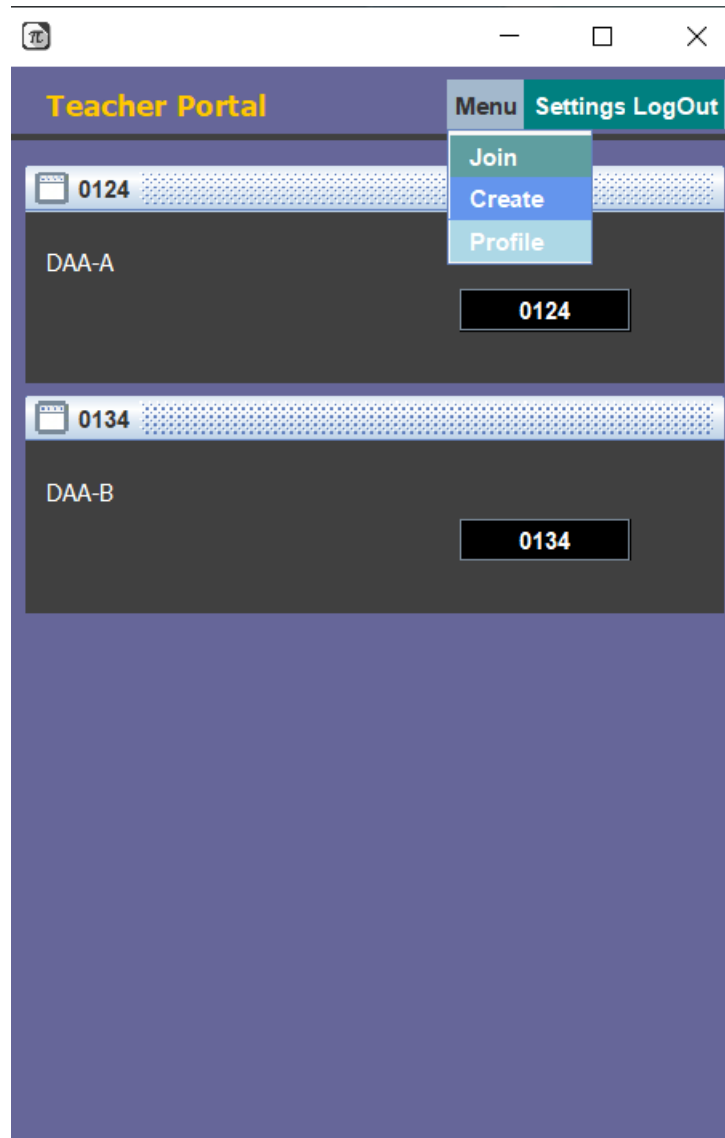

Fig 4.4: Student Portal

4.5 Teacher Portal

Fig 4.5: Teacher Portal

4.6 Assignment uploads Page
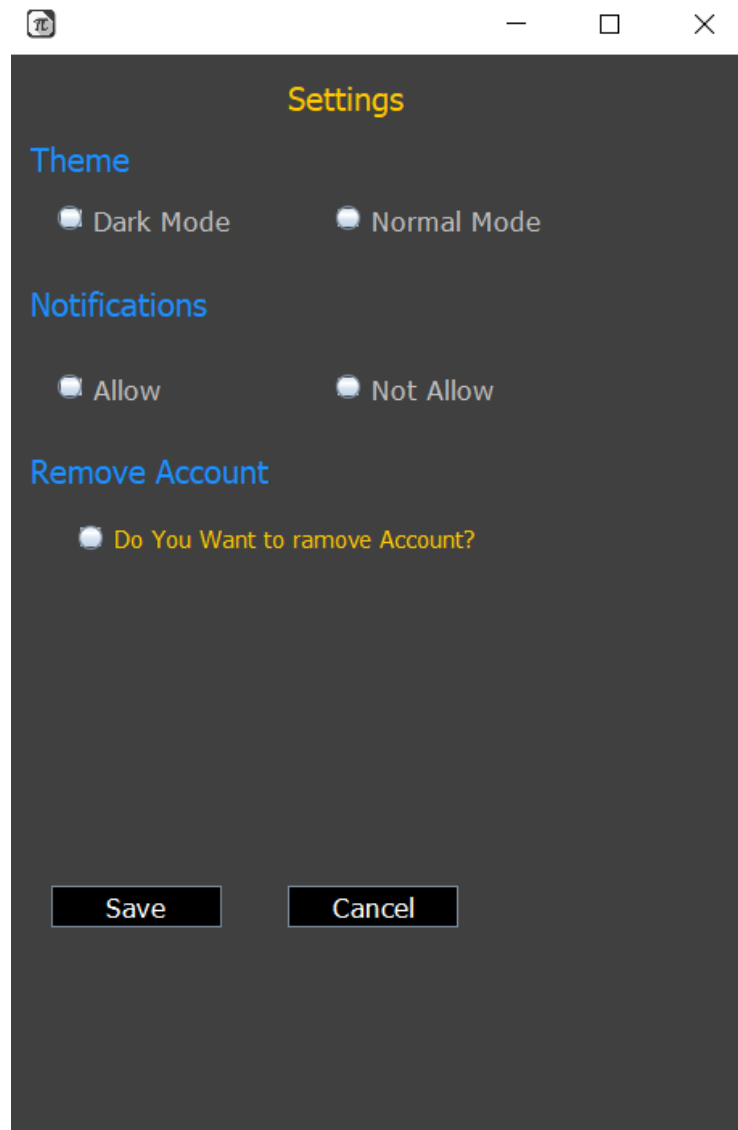

Fig 4.6: Assignment Upload Page

4.7 Setting Page

Fig 4.7: Setting Page

Chapter 5
SOFTWARE TESTING

5.1 INTRODUCTION

At this stage, I will ensure both individual and integrated whole are methodically verified to ensure they are error free and satisfy user requirement. I will involve both unit testing of individual code module, system testing of the integrated product and acceptance testing conducted by or on behalf of users. I will ensure bugs found are corrected before moving to the next stage. I will also prepare, review and publish product documentation at this stage.

5.2 UNIT TESTING

It is a type of software testing where individual units or components of software are tested. The purpose is to validate that each unit of the software code performs as expected. Unit Testing is done during the development (coding phase) of an application by the developers. Unit Tests isolate a section of code and verify its correctness. A unit may be an individual function, method, procedure, module, or object.

Test case 1: Test case for authentication (Teacher/student):

Table 5.1

Test Procedure	Entering Email and Password.
Expected Result	Authentication successful and redirect to dashboard.
Actual Result:	Remain at login page.
Comment	Need to check Mysql query in the java program.
Conditional Test	Again, run.
Expected Result	Authentication successful and redirect to dashboard.
Status	Success

Test case 2: Test case for creating Class (Teacher):

Table 5.2

Test Procedure	Entering class code and class name.
Expected Result	Class create successful with given name.
Actual Result:	Class created but not shown on GUI.
Comment	Need to check Mysql query in the classcreate() function.
Conditional Test	Again, run.
Expected Result	Class create successful with given name.
Status	Success

Test case 3: Test case for Joining Class (Student):

Table 5.3

Test Procedure	Entering class code given by teacher for joining class.
Expected Result	Class successfully joined.
Actual Result:	Class successfully joined.
Status	Success

Test case 4: Test case for uploading/downloading files (Teacher/student):

Table 5.4

Test Procedure	Select files from pc for uploading on s3.
Expected Result	Files successfully uploaded and can be download by students from s3.
Actual Result:	Files not download successful.
Comment	Need to check file path code in fileUpload() function.
Conditional Test	Again, run.
Expected Result	Files downloaded successfully.
Actual Result	Files downloaded successfully.

Test case 5: Complete testing

Table 5.5

Test case	On Date	Expected result	Actual Result	Status
Create account	26-Sep-2020	Account should be created	Account created	Successful
Create class	30-Sep-2020	Class created in database	Class created.	Successful
Join class	15-Oct-2020	Class joined by student	Class not joined	Unsuccessful
Join class	20-oct-2020	Class joined by student	Class not joined	Successful
Upload files on s3	25-Oct-2020	Files uploaded on s3	File not upload	Unsuccessful
Upload files on s3	4-Nov-2020	Files uploaded on s3	File upload	Successful
Retrieve file from s3	10-Nov-2020	File retrieve on dashboard	File retrieved	Successful

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CONCLUSION

A software project means a lot of experience. In this section we summarize the experience gained by project team during development of "**Assignment system using cloud**".

It was a wonderful learning experience for us while working on this project. This project took us through the various phases of project development and gave us real insight into the world of software engineering. The joy of working and the thrill involved while tackling the various problems and challenges gave us a feel of the developers' industry. It was completely new experience for our team members to develop the project using the Amazon s3 service. But, now it gives vast knowledge of cloud services and how to interact them with programming languages.

We learned a lot through this project. This project has sharpened our concept of cloud computing & virtualization and the software-hardware interface. We learned a lot about different documentation. The piece of software we developed is intended to serve the colleges. This project not only tested our technical skills but also our temperament.

6.1 The Achievements

1. Now we know much more about cloud platform and services of it.
2. How cloud interact with java application.
3. Develop technical skills.
4. Growing creative thinking and imagination capability.

6.2 Future Plan

• Improve GUI

• Improve Features

• Security of Document

APPENDICES

Appendix 1. Sample References

Websites

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