A

Project Report on

Online Examination System

Submitted by : Lalit Kumar

Roll No : 185020

Branch : CSE(B.Tech)

Certification

This is to be certified that Lalit Kumar, student of National Institute of Technology, Hamirpur in the department of Computer Science and Engineering has worked on the College Project Entitled with:

"Online Examination System"

Under the guidance of

Dr. Naveen Chauhan

.....

Authorized

Signature

Dated:

….....

Dr. Naveen Chauhan

ACKNOWLEDGEMENT

I am very thankful to Dr. Naveen Chauhan, to allow me to build this project and guide me because without his guidance it would not be possible to build this project.

Last but not least I would like to thank the entire National Institute of Technology Computer Science Department for allowing me to proceed with the project.

ONLINE EXAMINATION SYSTEM

PURPOSE:

The purpose of an online exam simulator is to take the online exams efficiently and no time wasting for checking the paper. The main objective of an online exam simulator is to efficiently evaluate the candidate thoroughly through a fully automated system that not only saves a lot of time but also gives fast results. For students, they give papers according to their convenience and time and there is no need of using extra things like paper, pen, etc.

SCOPE

- The scope of this project is very broad in terms of other manually taking exams. A few of them are:-
- This can be used in educational institutions as well as the incorporate the world.
- Can be used anywhere at any time as it is a web-based application(user Location doesn't matter).
- No restriction that the examiner has to be present when the candidate takes the test.

FEATURES:

- Secure
- Easy to use
- Reliable and accurate
- No need for a examiner

Software Requirements Specification

Development Environments

Hardware :

Intel core 2 duos T6400 2.00 GHz with 2GB RAM, 250 GB hard disk

space and other Standard accessories.

Environment and Applications:

Microsoft Windows 7.

Microsoft Visual Studio 2010.

Microsoft Internet Explorer.

Operating environment:

Hardware configuration:

The minimum configuration for hardware is given below:

Intel® Pentium® or higher processor.

65 MB RAM or higher

Software configuration:

Microsoft® Windows® XP or later versions

A standard web browser.

NodeJs installed

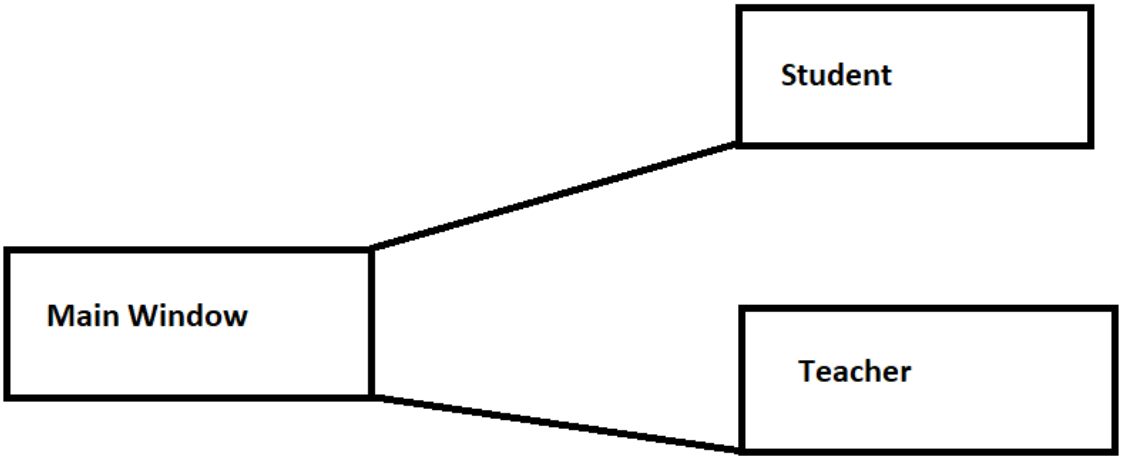
Technologies Used :

Backend : NodeJs

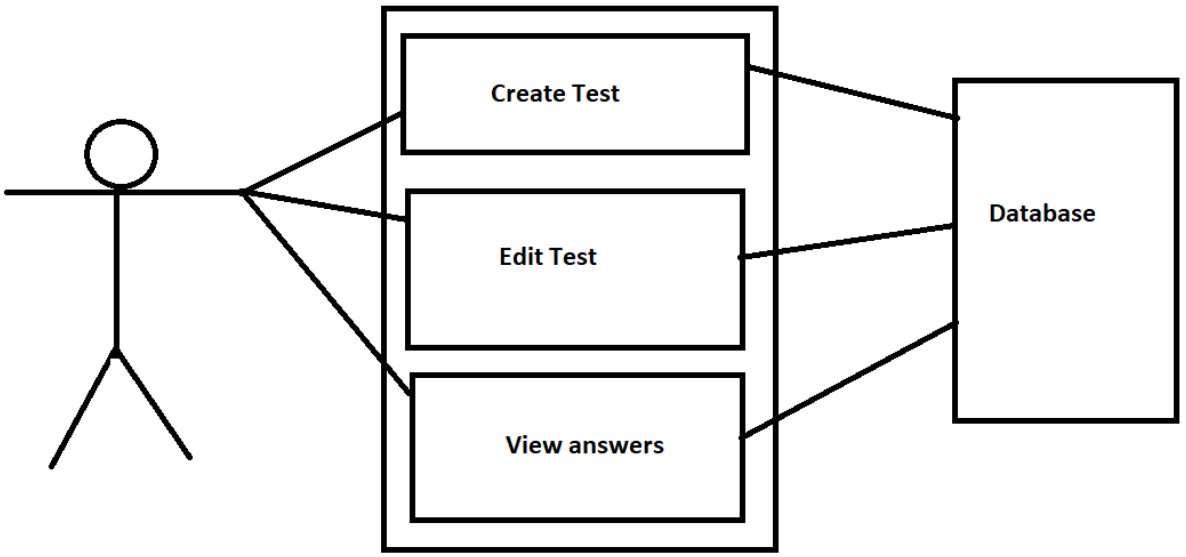
Database : Mongodb

Frontend : HTML,CSS,JS,BootStrap

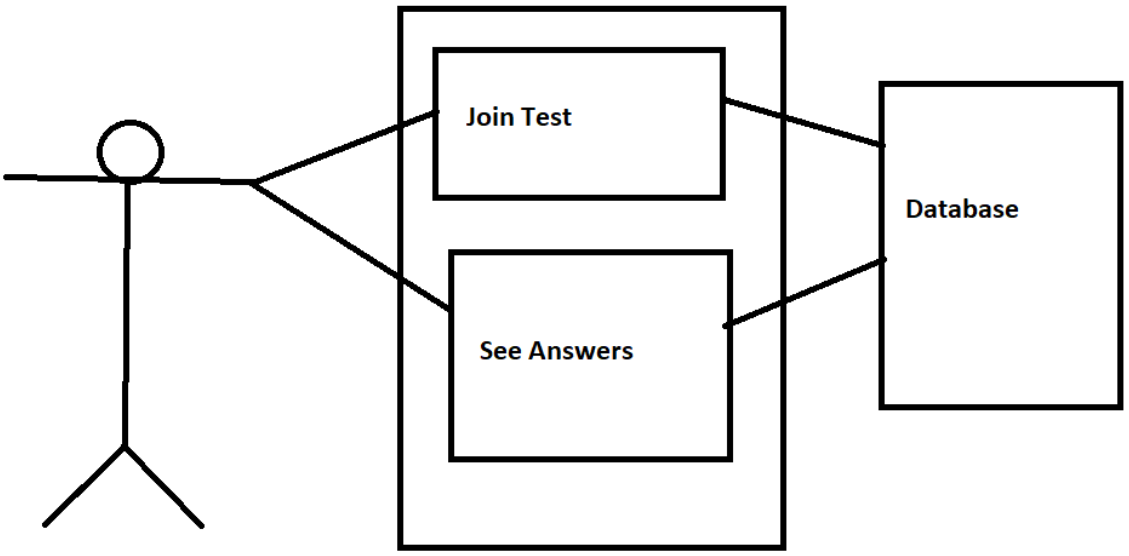
Detailed design specification:



Home Page



Teacher’s Window



Student's Window

SDLC (Software development Life Cycle)

Every activity has a life cycle and the software development process is not an exception for the same. Even if you are not aware of SDLC you still must be following it unknowingly. But if a software professional is aware of SDLC he can execute the project in a much-controlled fashion. One of the big benefits of this awareness is that hot-blooded developers will not start directly execution (coding) which can lead to the projects running in an uncontrolled fashion. Second, it helps customers and software professionals to avoid Confusion by anticipating the problems and issues beforehand. In short, SDLC defines the various stages in a software life cycle. But before we try to understand what SDLC is all about. We need to get a broader view of the

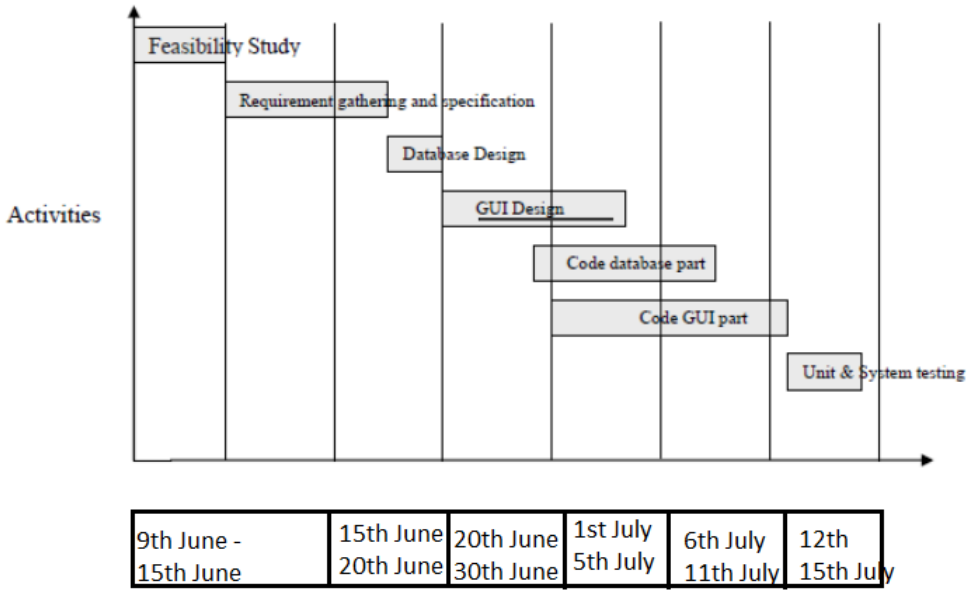
start and end of SDLC. Any project started if it does not have a start and end then it’s already in trouble. It’s like if you go out for a drive you should know where to start and where to end or else you are moving around endlessly.

Iterative model

The iterative waterfall model is used in the development of the system. The system is developed in increments, each increment adding some functional capability to the system until the full system is fully implemented. The advantage of this approach is that it will result in better testing, as testing
of each increment is easier than testing the entire system in totality. Furthermore, this approach provided us with important feedback that was very useful in the implementation of the system.

Development Schedule

The work on the proposed ONLINE EXAMINATIONYSTEM was started on 9th June 2021. The following Gantt chart has explained the estimated duration of the different phases of the software development work diagrammatically

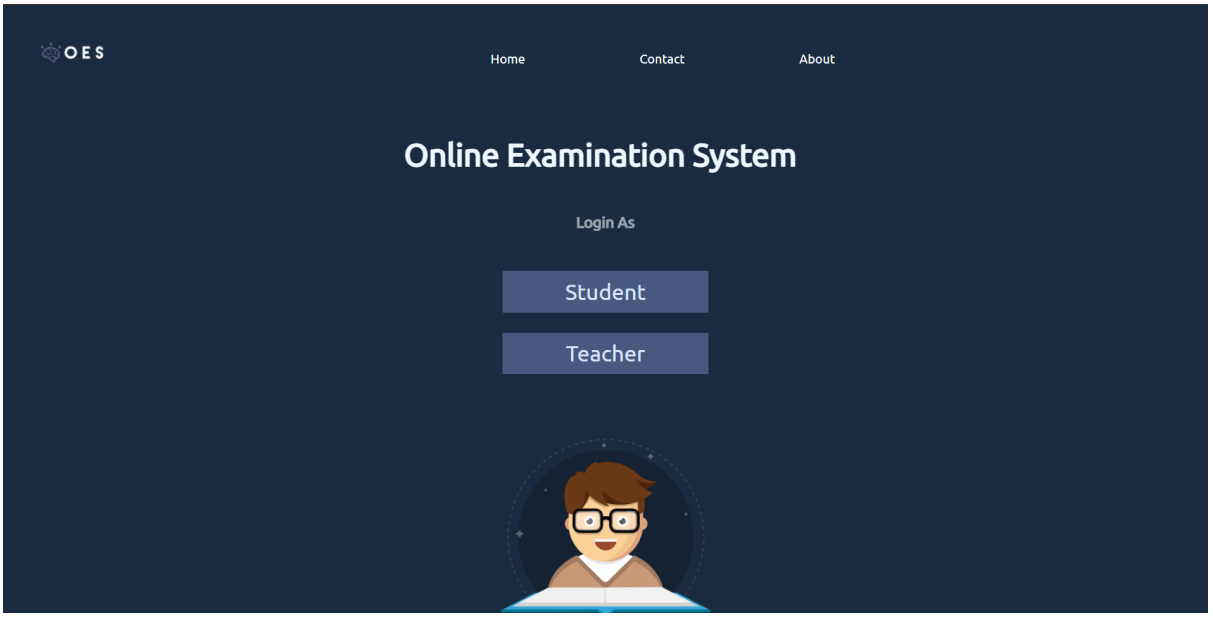


Implementation Details

Database Tables

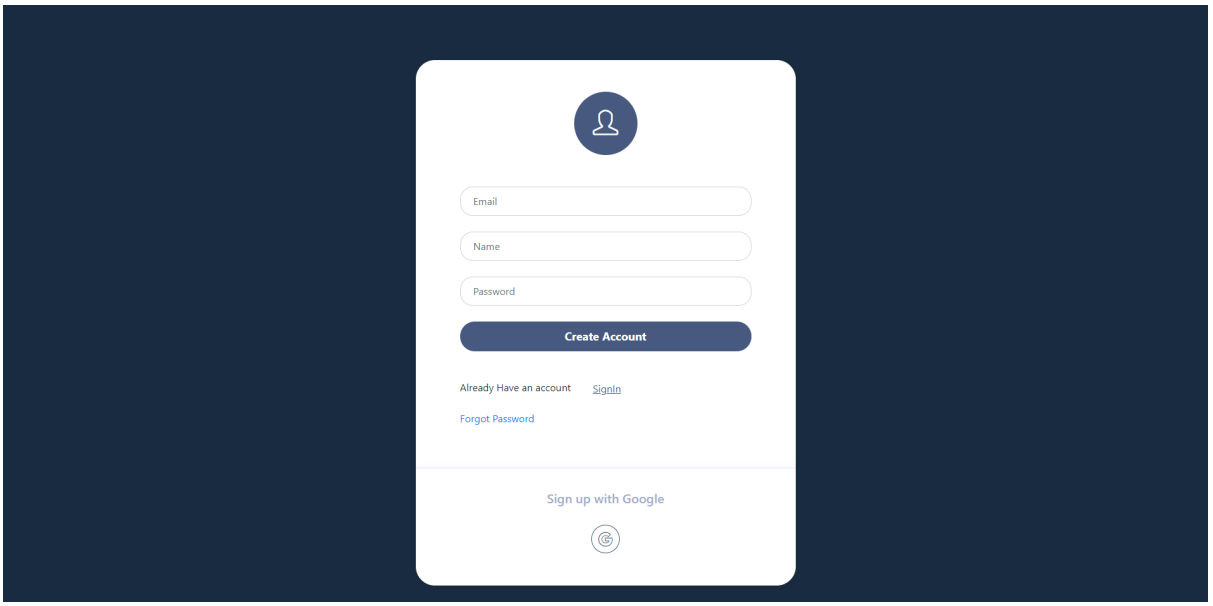
- Answers: Store information about all answers submitted by students(name,testId, answers).
- Marks: Store information about marks given to each student in each test(name of student, marks, test).
- Students : Store information about students(email,encrypted password).
- Teachers: Store information about teachers(email, encrypted password).
- Tests : Store information about each test(started/stopped,teacher name,testId, questions)

Home Page



In Teachers Section

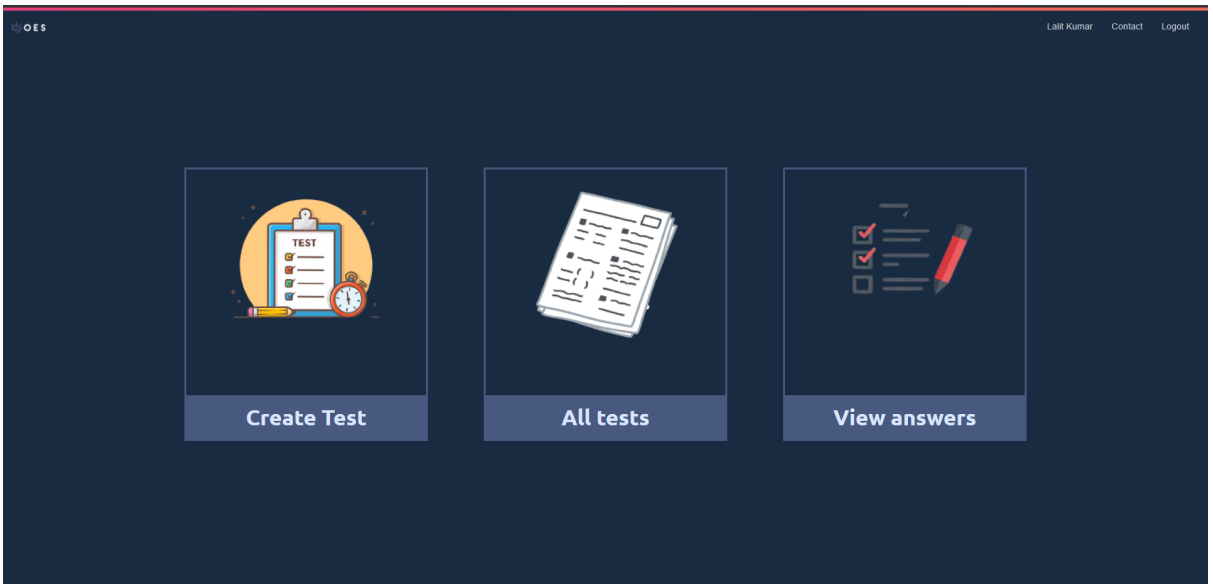
Login window



Teachers can log in/signup with email, password, or google login

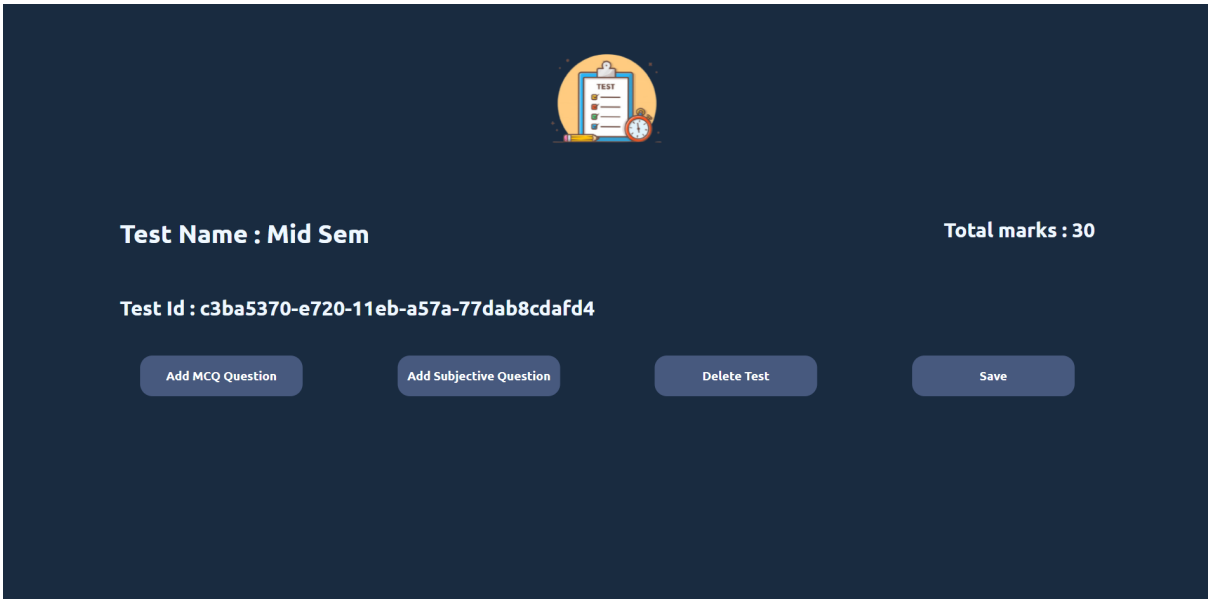
After Login

Teacher Dashboard



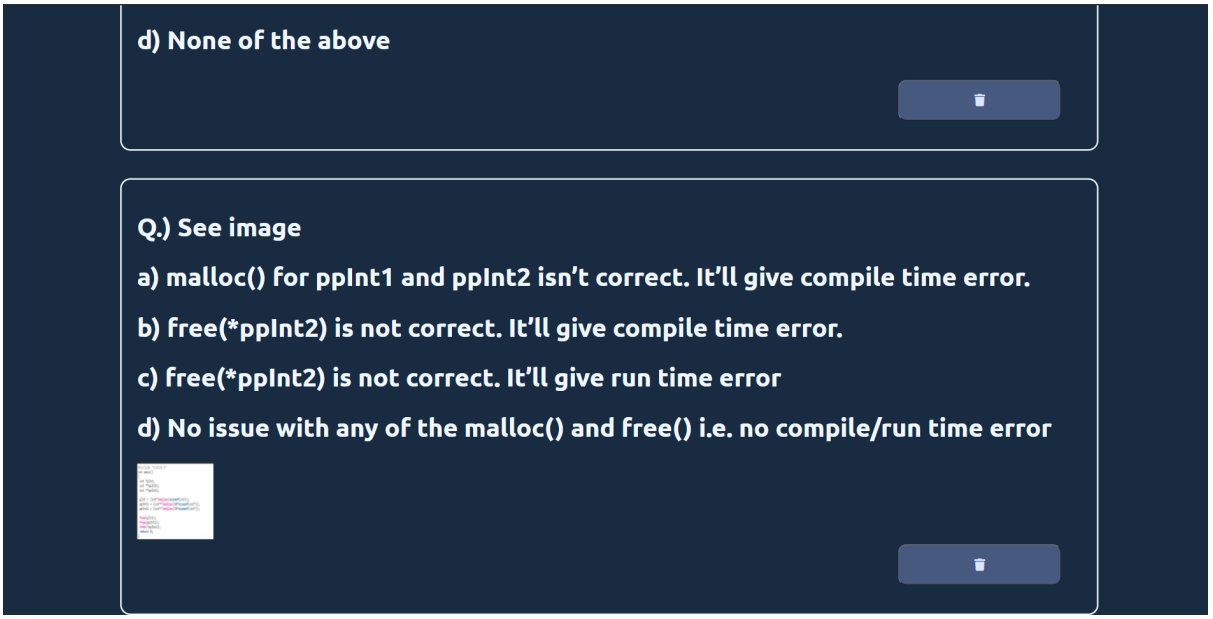
After Creating test

A random test id is generated (created via UUID npm package)



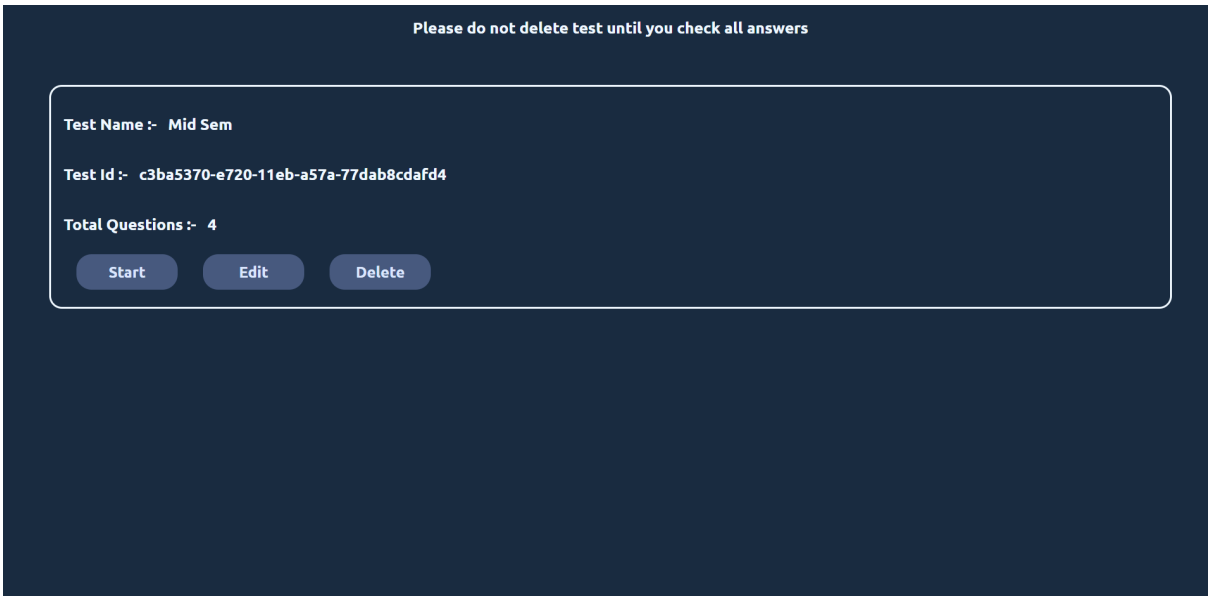
You can add MCQ/subjective questions.

You can also delete tests and view images.



After clicking all test

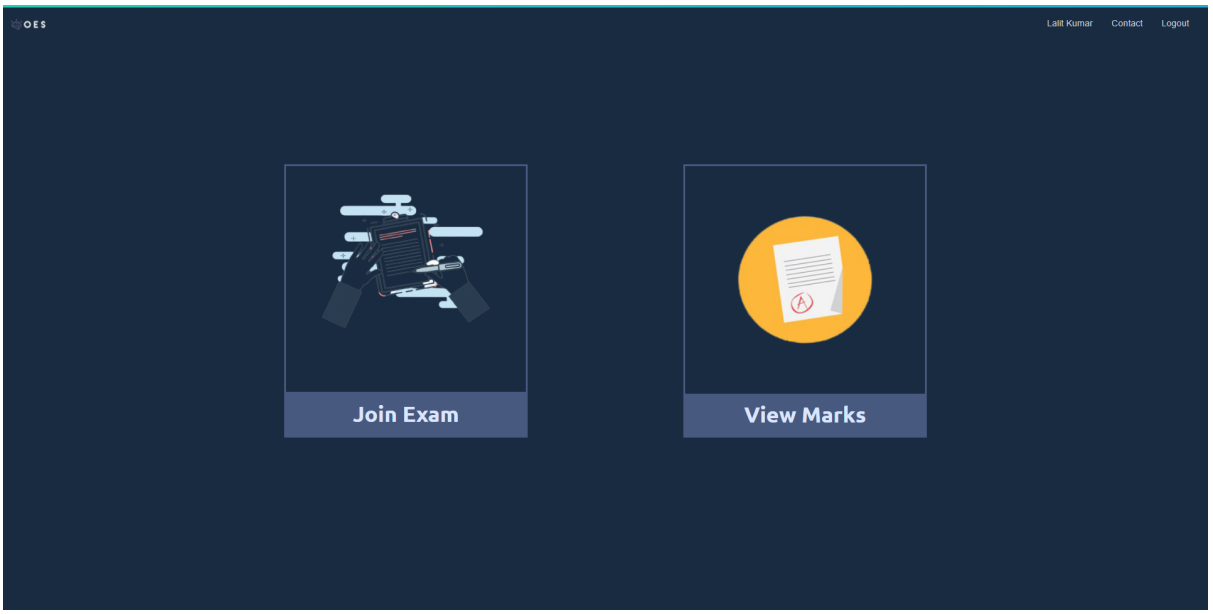
You can delete or edit the test. You can change the status of the test(on/off).



This id is required to join the test.

After Login

Student Dashboard



Students can join the test by entering the appropriate test id

OOPS!

WRONG TEST ID

BACK

Mid Sem

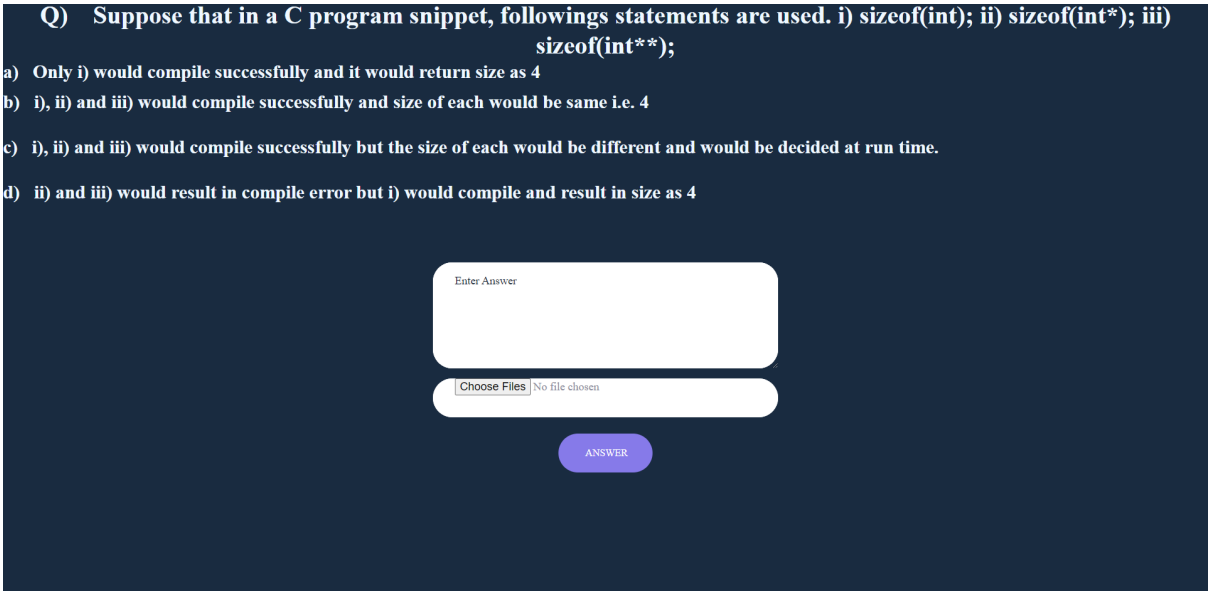
Total marks : 30

Submit Test

Q.) Suppose that in a C program snippet, followings statements are used. i) sizeof(int); ii) sizeof(int*); iii) sizeof(int**);

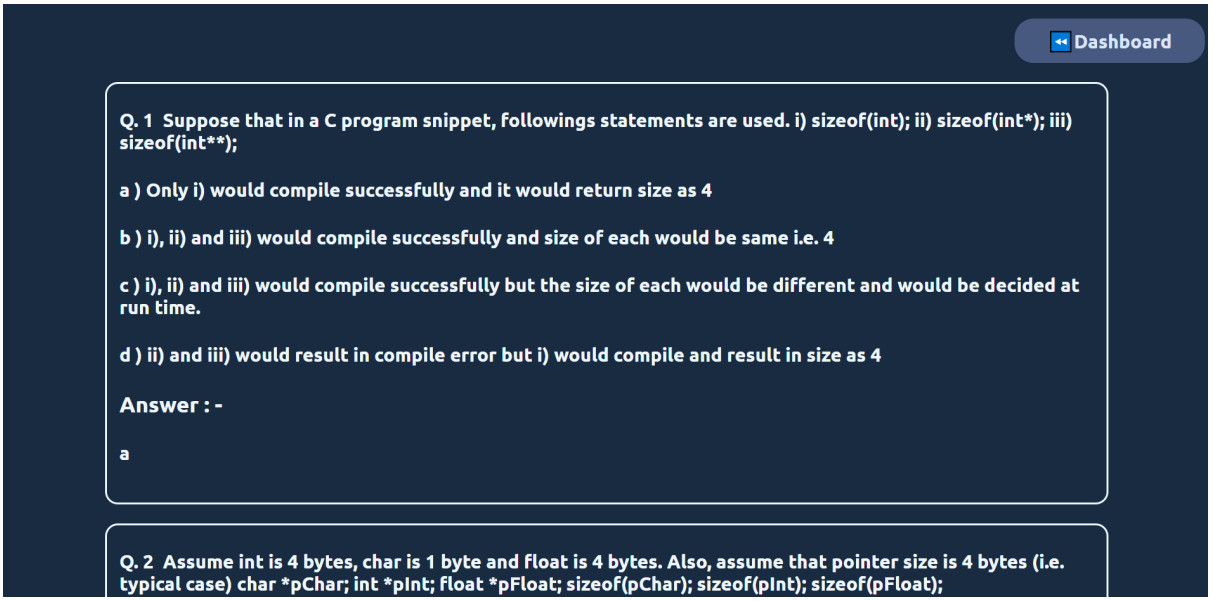
Answer

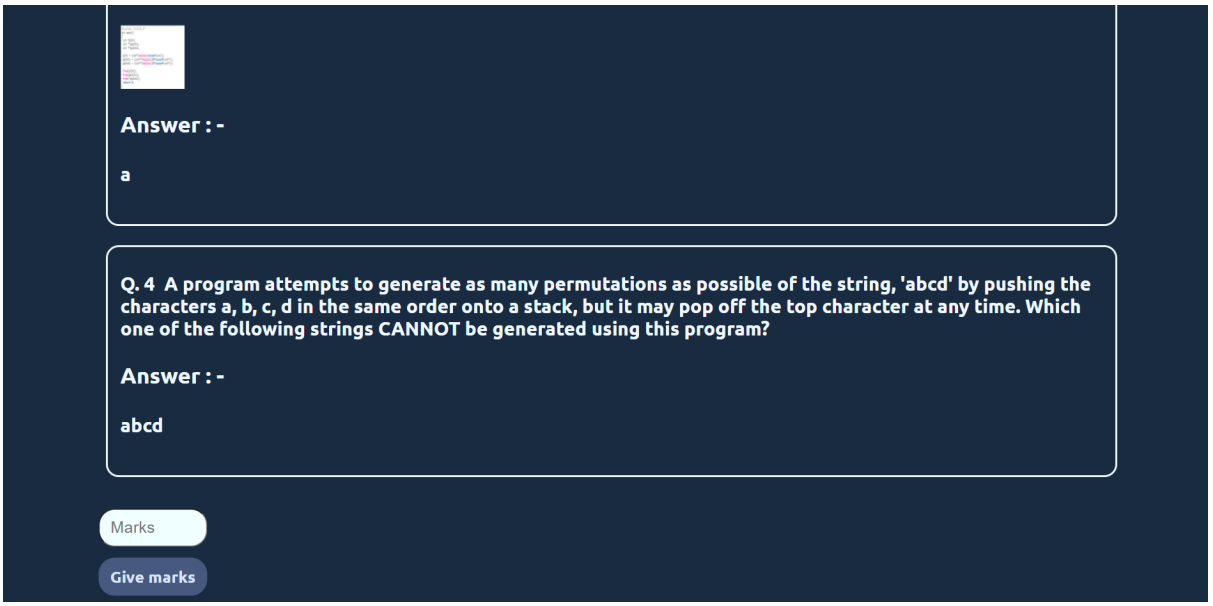
Reset



After Submitting

The teacher can see each student's answers





Teacher can give marks

Students can see their marks in each test

If a teacher or student forgot his password

he can change his password by clicking forgot password. An email is sent to the registered email with a link where he can change his password.

References :

NodeJs : https://nodejs.org/en/

BootStrap : https://getbootstrap.com/

HTML : https://www.w3schools.com/html/

CSS : https://www.w3schools.com/css/

JS : https://www.w3schools.com/js/

Express : https://expressjs.com/

Nodemailer : https://nodemailer.com/about/

Multer : https://www.npmjs.com/package/multer

Github: https://github.com/Lalit-Kumar20/Online_Examination.git