

Assignment No. 4

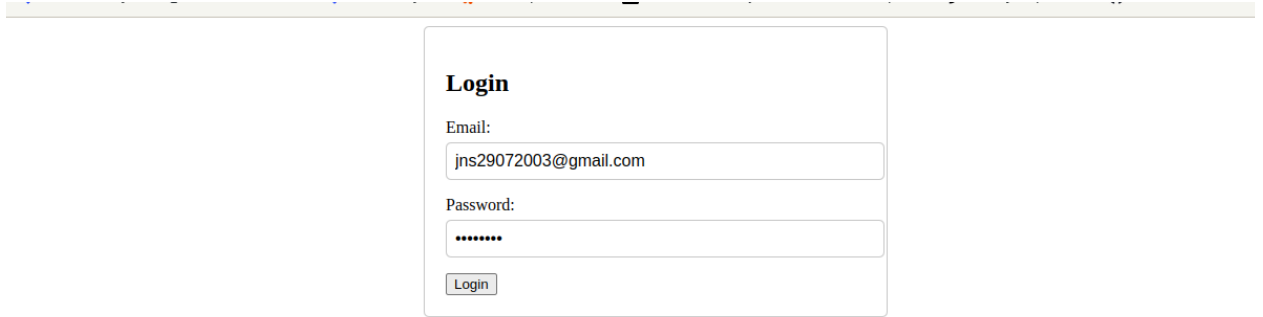
6CS371 : Advanced Database System Lab

Name : Jay Shirgupe
PRN: 21510026
Batch: T-7
TY CSE

Design and implement a system for managing online multiple-choice tests. The system should support distributed contribution of questions by teaching assistants, editing of the questions by whoever is in-charge of the course and creation of tests from the available set of questions. It should be able to administer the tests online, either at a fixed time for all students or at any time but with a time limit from start to finish and give students feedback on their scores at the end of the allotted time.

1. Login

To implement authentication and authorization we use json web tokens(JWT). The passwords are stored in the database in hashed form using the bcryptjs library. When a valid login request is processed, the server returns us a jwt token which is valid for one hour. This is stored in the local storage of the browser and passed in the Authorization header in all subsequent requests.



The image shows a web browser window with a login form. The form is titled "Login" and contains two input fields: "Email:" and "Password:". The email field contains the text "jns29072003@gmail.com" and the password field contains seven dots. Below the password field is a "Login" button.

Login

Email:
jns29072003@gmail.com

Password:

Login

2. Quiz Creation

The quiz creation can only be done by users with the “Teacher” role. Any teacher can create a quiz.

A quiz must have a name, subject and zero or more questions, each question consisting of description, optionally an image, marks and more than one option, one of them being the correct answer.

The quiz and questions are stored in separate tables linked by a foreign key.

ADS LA-1

ADS

What is MySQL

Marks: 2

An SQL Database

A No-SQL database

A frontend framework

EditDelete

What is a session

Marks: 2

A level of management

A react library

A concept

EditDelete

What is a database

☐

Include Image

4

A box to store somethin

☒ Correct

Delete

☐ I don't know

☐ Correct

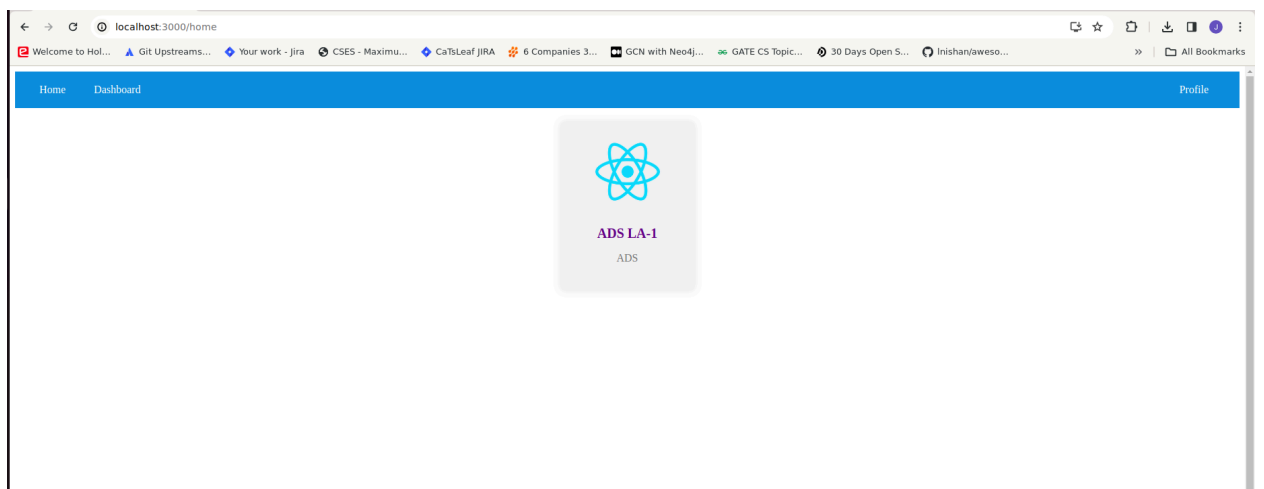
Delete

Add OptionAdd Question

Submit

3. Home Page

The home page is from where the students can access the test. By clicking on any one of the cards, the student will start his test.



4. Quiz page

On starting the test, the student has to select an option for each question(possibly leaving it blank). The students gets a submit button on the last question. If the timer goes out before submission, the test is submitted automatically.

localhost:3000/quiz/1

Welcome to Hol... Git Upstreams... Your work - Jira CSES - Maximu... CaTsLeaf JIRA 6 Companies 3... GCN with Neo4j... GATE CS Topic... 30 Days Open S... Inishan/aweso...

Timer: 9 : 53

2

What is a session

A level of management

A react library

A concept

Prev Next

localhost:3000/quiz/1

Welcome to Hol... Git Upstreams... Your work - Jira CSES - Maximu... CaTsLeaf JIRA 6 Companies 3... GCN with Neo4j... GATE CS Topic... 30 Days Open S... Inishan/aweso...

Timer: 9 : 30

3

What is a database

A box to store somethin

I don't know

Prev Submit

5. Quiz submission result

On submitting the test, the student is redirect to the submission results page, where he can view the marks obtained for the attempt and the options chosen by him/her.

Quiz Submission

Total Marks Obtained: 2

What is MySQL

An SQL Database

A No-SQL database

A frontend framework

Selected Option: 0

What is a session

A level of management

A react library

A concept

Selected Option: 1

What is a database

A box to store somethin

Conclusion:

Here we have implemented a quiz application using react ,nodejs and express, utilizing jwt web tokens for authentication and authorization.