Lab Activity 7 - MERN Stack

Software System Development – Monsoon 2023

Due Date: 04th October 2023, 05:00 pm

Instructions:

➢ Deadline mentioned during the Lab is strictly immutable. No extensions will be given.

➢ Any naming convention mentioned in the lab activity must be followed strictly or marks may be deducted for the same.

➢ Any plagiarized content will fetch zero marks for the current lab and will be followed by strict action against the students involved. However, discussion of ideas is allowed.

Submission Criteria:

➢ Create a folder with your **roll number as its name**.

➢ Create 2 folders – server & client, which are to be placed inside a folder named as **<roll_number>.**

➢ **server** folder must contain the backend source codes written in ExpressJs.

➢ **client** folder must contain source code for ReactJs.

➢ Compress the folder as a zip file **(name should be <roll_number>.zip)** and then upload it on the Moodle before deadline.

➢ **README.md is mandatory** should contain steps for execution of your script and any extra information that you want the evaluator to know before running your script, such as dependencies on some external tools or libraries.

Important Points to consider:

1. **Use .env file for maintaining constants such as DATABASE_CONNECTION_STRING, PORT, etc. as discussed in the tutorial.**
2. **DO NOT include node_modules in your submission.**

Database Schema:

User:

Username : string

Password : string

Login Page(10 Marks):

1. This is the landing page of your application which has the following:

    (2 marks)

    i. Input field to capture Username of the user.

    ii. Input field to capture the Password of the user.

    iii. Two buttons – Login and Sign Up, to log in the user to application and register the new user, respectively.

2. The login must be session-based authentication and use MongoDB to persist session data**. (5 marks)**

3. If a user navigates to other pages without login, he/she must be redirected to the login page. **(3 marks)**

Register Page (10 Marks):

1. This page is for registration of new users. **(2 marks)**

    i. Input Field to capture Username of the user.

    ii. Input Field to capture the Password of the user.

    iii. Input Field to capture the confirmed Password.

2. Registration should be only for new users i.e. if the username doesn't exist otherwise show a message that username already exists. **(6 marks)**

    Note: Registration Details should get saved into Database. No need to store confirm password, it's just to check if the password entered matches or not.

3. After Registration users should get redirected to Login Page.

    (2 marks)

    (Point 3 of Login Page is also applicable here)

Create To-do Page (5 Marks):

1. This Page is to create a To-Do item. **(2 marks)**

   i. Input box containing title.

   ii. Input box containing description

   iii. Date Picker for To-Do item completion.

   Iv. **Create** button: Create new to-do item.

2. Date can't be previous date i.e. only future dates are allowed to create a To-Do item. **(2 marks)**
3. When clicked on the create button all entered details should get displayed in the alert box. **(1 marks)**