

WEB APPLICATION DEVELOPMENT USING NODEJS - 502070

LAB SESSION 10

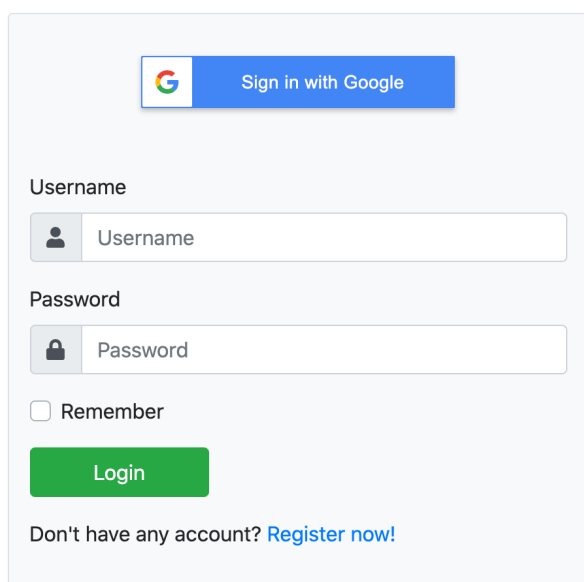
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OBJECTIVES

1. [Review](#) all the acquired knowledge.
2. Integrate [Google login](#) into the website.
3. Explore [web sockets](#) and [socket.io](#).
4. Deploy the website onto a [hosting service](#).

ASSIGNMENT DESCRIPTION

Build an online chat website using the WebSocket protocol. The website enables users to send real-time messages and files. To use the chat function, users first need to log into the website using their student email accounts. Once development is complete, the website needs to be deployed onto a specific hosting service.



The login interface mockup features a light gray background. At the top, there is a blue button with the Google logo and the text 'Sign in with Google'. Below this, the 'Username' section includes a user icon and a text input field labeled 'Username'. The 'Password' section includes a lock icon and a text input field labeled 'Password'. A checkbox labeled 'Remember' is positioned below the password field. A green 'Login' button is located at the bottom of the form. At the very bottom, there is a link that says 'Don't have any account? [Register now!](#)'.

The login interface supports the feature 'Login with Google'. This exercise doesn't require students to implement traditional username and password login; only the Google login feature is utilized. However, for aesthetics, the login page should still display the complete interface.

REQUIREMENT DESCRIPTION

1. Deploying the Application to Hosting

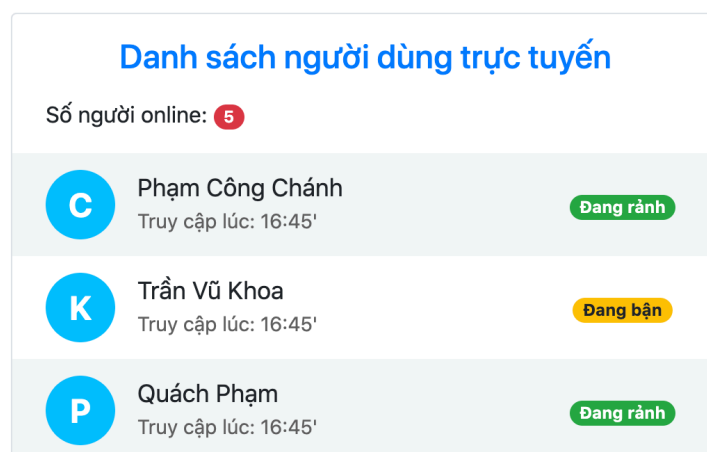
To facilitate the 'Login with Google' feature, the website should be deployed on a specific hosting service. This ensures access from anywhere and with a designated domain. Free hosting services such as Heroku can be utilized.

2. Google Login Feature

Users need to log in with their student email accounts before accessing the website. This exercise only permits @student.tdtu.edu.vn accounts to log in.

3. Managing the List of Conversations

Upon logging into the website, users are redirected to the homepage where the list of online users is displayed.



This list updates in real-time—when users log in or end a chat session, they switch between 'available' and 'busy' statuses. If a user initiates a chat, their status changes to 'busy'. Upon logout or browser closure, they are immediately removed from the list on other users' devices.

4. Sending Messages

For simplicity, chat function is implemented for one user at a time. When a user is marked as 'busy', we cannot chat with them until they end their ongoing conversation.



The chat interface supports sending text messages and images (drag and drop into the chat window).

ADVANCED REQUIREMENTS

Use MongoDB to store chat history.