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Secure Login System – Introduction and Overview

For this task, I developed a secure login system to demonstrate a feature that goes beyond the basic concepts covered earlier in the unit. The aim was to implement real-world authentication that protects users' information and controls access to certain parts of the website.

This feature includes:

- A registration form that collects user details including name, email, password, and role (user or admin).
- Password security using bcrypt, so passwords are hashed before being stored in the database.
- A login system that verifies users with hashed passwords.
- Session-based login using express-session, so users stay logged in while browsing.
- A dashboard page that is only accessible to logged-in users.
- Role-based access — if the logged-in user is an admin, the dashboard displays admin options.
- A logout function that clears the session and safely ends the login.

I used Node.js, Express, EJS templates, and an SQLite database to implement this feature. The whole process is explained step-by-step in a special wiki/tutorial page included in the website. This page describes how the system works, the tools used, and how someone else can build the same feature.

By doing this, I learned more about secure web development, sessions, password hashing, and user roles, which are essential for real applications.