

Summary of the Server-side components for the Assignment 2

This assignment focuses on server-side web development using Node.js and Express.js. The goal is to implement essential backend functionalities, including templating, user management, CRUD operations, validation, and deployment.

Key Requirements for the Backend

1. Server-Side Implementation (Node.js & Express.js)

- Build the backend using Node.js and Express.js.
 - Use a templating engine (if required).
 - Maintain proper coding standards, including indentation, comments, and clean code structure.
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2. User Management & Authentication

- Support multiple users with session handling.
 - Users must be able to register, log in, and retrieve their data.
 - Use cookies & sessions to maintain state.
 - Implement user permissions, such as restricting access to specific features.
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3. CRUD Operations

- Implement Create, Read, Update, and Delete (CRUD) functionalities.
 - Ensure a database connection (MongoDB or MySQL) for data persistence.
 - Users must be able to add, retrieve, update, and delete data from the database.
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4. Server-Side Validation & Error Handling

- Validate form inputs before storing them in the database.
 - Provide meaningful error messages or auto-correct user inputs.
 - Implement server-side validation to prevent security risks.
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5. Deployment & Hosting

- The backend must be deployed online using Render, Vercel, or Heroku.
- A live URL should be submitted along with the source code.
- Ensure proper navigation so the system functions as a single, connected unit.

6. Submission Guidelines

- Submit all project files in a structured format (backend, database, documentation).
 - Include a README.md file detailing the project and the team's contributions.
 - Submit a video demo (max 10 minutes) explaining the project.
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Next Steps for Implementation

1. Set up the Express.js server and database connection.
2. Implement user authentication (signup, login, JWT/sessions).
3. Develop CRUD operations for managing news data.
4. Validate form inputs and handle errors properly.
5. Deploy the backend and provide a working URL.

This is the summary that captures all the backend requirements for the assignment 2 file.