

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.