Backend Developer Assignment: Simple Note-Taking API

Overview

Develop a RESTful API for a simple note-taking application using Node.js and Express.js, with MongoDB as the database. The API should allow users to create, retrieve, update, and delete text notes.

Assignment Requirements

MongoDB Setup:

Use MongoDB to store notes. Each note should have a title, content, and timestamps for creation and last modification.

API Endpoints:

- Create Note: Endpoint to add a new note to the database.
- Retrieve Notes: Endpoint to get a list of all notes, with an option to retrieve a single note by its ID.
- Update Note: Endpoint to update the content of an existing note.
- Delete Note: Endpoint to delete a note from the database.

Data Validation:

- Implement validation for note creation and updating. Ensure that the title and content fields are provided and are of appropriate lengths.

Error Handling:

- Develop comprehensive error handling for the API, covering scenarios like invalid input, trying to access or modify non-existent notes, etc.

Basic Authentication (Optional):

- If time permits, add a simple authentication mechanism (like Basic Auth) to protect the endpoints.

Documentation:

- Document the API endpoints, including details about request methods, URL paths, expected request body format, and response formats.

Testing:

- Write basic tests to ensure API endpoints are functioning as expected.