Subject: Backend Development Assignment

Dear [Backend Developer's Name],

I hope this message finds you well. I am Pratik Dhere, the Web Team Lead at Osumare Marketing Solutions. We have an ambitious backend development project that requires your advanced expertise.

\*Assignment: Build a Basic RESTful API\*

\*Description:\*

You are tasked with building a simple RESTful API using Node.js that manages a collection of tasks (e.g., to-do items). The API should allow users to perform basic CRUD (Create, Read, Update, Delete) operations on tasks. The data should be stored in memory (no database required). Your API should support the following endpoints:

1. `GET /tasks`: Retrieve a list of all tasks.

2. `GET /tasks/:id`: Retrieve a specific task by ID.

3. `POST /tasks`: Create a new task.

4. `PUT /tasks/:id`: Update an existing task by ID.

5. `DELETE /tasks/:id`: Delete a task by ID.

\*Requirements:\*

1. Use Express.js to build the API.

2. Implement basic validation to ensure that task properties are required (e.g., title, description).

3. Store the tasks in memory (an array or object).

4. Provide clear and concise API documentation, including sample requests and responses.

5. Use appropriate status codes (e.g., 200 for success, 404 for not found, 400 for bad requests).

6. Test the API using tools like Postman or curl and include instructions for running the API locally.

7. Add error handling to gracefully handle unexpected issues.

\*Bonus Points (Optional):\*

- Implement pagination for the `GET /tasks` endpoint.

- Add sorting and filtering options for task retrieval.

- Include authentication and authorization mechanisms for protecting certain endpoints

\*\*Deadline:\*\*

The deadline for this assignment is Tuesday eod

\*\*Submission:\*\*Please submit your completed project, including the source code, API documentation, and a report explaining your approach and algorithm choices

[pratikdhere2018@gmail.com](mailto:pratikdhere2018@gmail.com)

If you have any questions or need clarification on any aspect of this assignment, please feel free to reach out to me at [pratikdhere2018@gmail.com](mailto:pratikdhere2018@gmail.com)

Mob no. - 9130316771

We greatly appreciate your dedication to this challenging backend development project. Your expertise will be instrumental in enhancing our systems at Osumare Marketing Solutions.

Regards,

Pratik Dhere