

Task Management RESTful API Report

Introduction

This report provides an overview of the Task Management RESTful API (CRUD) project, detailing its design, implementation and functionality.

Project Overview

The Task Management RESTful API project aims to provide a simple yet effective solution for managing tasks through a RESTful API interface. It facilitates CRUD (Create, Read, Update, Delete) operations on tasks stored in memory.

Approach

I implemented the solution in which tasks are stored in memory but it is very tedious task to restart the whole process again from post to update on every restart of the server. To address this I tried it in a way that my todos will get stored in another file (todos.json). And one another solution can be using database (MongoDB).

Implementation

The API is implemented using Express.js, a fast, unopinionated, minimalist web framework for Node.js. Each endpoint is designed to handle specific CRUD operations on tasks, with appropriate validation and error handling mechanisms

in place.

The API exposes the following endpoints:

GET /tasks: Retrieve a list of all tasks.

GET /tasks/: Retrieve a specific task by ID.

POST /tasks: Create a new task.

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

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

Error Handling

The API returns appropriate HTTP status codes and error messages for different scenarios, ensuring a consistent and user friendly experience for clients.

Technology Stack

The project utilises the following technologies:

Node.js: Server

side JavaScript runtime environment.

Express.js: Web application framework for Node.js.

Postman:API platform

npm: Package manager for Node.js.

Conclusion :

The Task Management RESTful API project provides a robust solution for managing tasks through a simple and intuitive interface. With its flexible architecture and comprehensive functionality, it serves as a reliable tool for task management in various applications.