

Problem Statement: Build a Simple Task Management API

Objective

Create a RESTful API using **Node.js** (with or without Express) that allows users to manage a list of tasks. Each task should have a title, description, status, and creation date.

Requirements

1. API Endpoints

Implement the following routes:

Method Endpoint Description

POST	/tasks	Create a new task
GET	/tasks	Retrieve all tasks
GET	/tasks/:id	Retrieve a single task by ID
PUT	/tasks/:id	Update a task (title, description, or status)
DELETE	/tasks/:id	Delete a task

2. Task Model

Each task should have the following structure:

```
{  
  "id": "unique-identifier",  
  "title": "string (required)",  
  "description": "string (optional)",  
  "status": "pending" | "in-progress" | "completed",  
  "createdAt": "timestamp"  
}
```

- Tasks can be stored **in-memory** (for junior/mid-level interview)
 - or in a **database like MongoDB / SQLite** (for advanced candidates).
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3. Additional Requirements

- Validate request data (e.g., title cannot be empty).
 - Handle errors gracefully (e.g., invalid ID, missing data).
 - Use asynchronous programming (async/await or Promises).
 - Return proper HTTP status codes.
 - Follow clean code and modular structure (e.g., routes, controllers, services).
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Acceptance Criteria:

Criteria	Description
Functionality	API endpoints work as expected
Code Quality	Readable, modular, and maintainable code
Error Handling	Handles invalid inputs and unexpected issues
Asynchronous Control	Proper use of async/await or Promises
Best Practices	Follows REST principles and Node.js conventions