

# Nodejs Lab 1

## 1. Install Node.js

- Download and install Node.js on your machine.

Verify the installation by running:

`node -v`

`npm -v`

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## 2. Create CRUD Operations for Posts

- Build a simple Node.js application.
- Implement the following operations for a **posts** resource:
  - GET → Retrieve all posts
  - POST → Create a new post
  - PUT → Update an existing post
  - DELETE → Remove a post

## 3. Get a Single Post

- Implement an endpoint to retrieve one post by its ID.

## 4. Save Data to a File

- Use the built-in **fs** (File System) module.
- Store posts data in a file (e.g., **posts.json**).
- Ensure data is read from and written to the file correctly.

## Bonus Questions (Optional)

### 1. Error Handling

- Handle cases where a post does not exist (e.g., invalid ID).
- Return appropriate HTTP status codes.

### 2. Validation

- Validate input data when creating or updating a post.
- Prevent empty or invalid fields from being saved.

### 3. Code Structure

- Organize your code into separate files (e.g., routes, controllers, data file).

### 4. Timestamps

- Add **createdAt** and **updatedAt** fields to each post.