

How to Run a Node.js Application

Follow these steps to set up and run a Node.js application that includes a package.json file.

1■■■ Step 1: Open the Project Folder

Open a terminal (Command Prompt, PowerShell, or VS Code terminal) and navigate to your Node.js project directory:

```
cd path/to/my-node-app
```

2■■■ Step 2: Initialize (if needed)

If your project already contains a package.json file, skip this step. Otherwise, create it using:

```
npm init -y
```

This command creates a default package.json file.

3■■■ Step 3: Install Dependencies

Install all dependencies defined in the package.json file using:

```
npm install
```

This command creates a node_modules folder and installs all required packages.

4■■■ Step 4: Check the Start Script

Open the package.json file and look for the 'scripts' section. Example:

```
"scripts": { "start": "node app.js" }
```

If a 'start' script is defined, you can use it to run the app.

5■■■ Step 5: Run the Application

Depending on how the project is set up, use one of the following methods:

■ Option 1: Using npm script

```
npm start
```

■ Option 2: Using Node directly

```
node app.js
```

or

```
node server.js
```

6■■■ Step 6: Verify the Application

If your app runs successfully, you'll see a message like:

```
Server running on port 3000
```

Now open your browser and visit:

```
http://localhost:3000
```

7■■ Step 7: Run in Development Mode (Optional)

Use nodemon for automatic restarts when code changes:

```
npm install -g nodemon  
nodemon app.js
```

Or if your package.json defines a dev script:

```
npm run dev
```

■ Common Commands Summary

Command	Purpose
npm install	Install all dependencies.
npm start	Run the app using the start script.
node app.js	Run the app manually.
nodemon app.js	Run app in development mode (auto-restart).
npm run dev	Run a custom development script.
Ctrl + C	Stop the running Node server.