

Simple Node.js Project using VS Code

This guide provides step-by-step instructions for creating a simple Node.js project using Visual Studio Code (VS Code). The project will set up a basic web server that serves a static HTML page.

Step 1: Install Node.js

1. Download Node.js: Go to Node.js official website and download the latest LTS version.
2. Install Node.js: Follow the installation instructions for your operating system.
3. Verify Installation: Run the commands ``node -v`` and ``npm -v`` in your terminal to verify the installation.

Step 2: Set Up Your Project in VS Code

1. Open VS Code: Launch Visual Studio Code.
2. Create a New Folder: Create a folder where you want to store the project and open it in VS Code.
3. Initialize Node.js Project: Run ``npm init -y`` in the terminal to create a package.json file.

Step 3: Install Express.js

1. Install Express: Run ``npm install express`` in the terminal to install the Express framework.

Step 4: Create a Simple Web Server

1. Create a New File: Create an `index.js` file in your project folder.
2. Write the Server Code: Add code to create a basic web server using Express.
3. Create a `public` Folder: Create a folder to store static files (HTML, CSS, JS).
4. Create an `index.html` File: Add a simple HTML page in the `public` folder.

Step 5: Run Your Server

1. Run the Server: Execute `node index.js` in the terminal to start your server.
2. Open the Browser: Visit `http://localhost:3000` in your browser to see your web page.

Step 6: Add More Functionality (Optional)

1. Add More Routes: Add additional routes in your `index.js` file to serve different content.
2. Add CSS/JavaScript: Enhance your HTML page with CSS and JavaScript files.

Step 7: Debugging in VS Code (Optional)

1. Set Up Debug Configuration: Use VS Code's `Run and Debug` panel to create a `launch.json` file.
2. Set Breakpoints: Add breakpoints in your code to debug.
3. Start Debugging: Click the `Run` button to start the server in debug mode.

Step 8: Exiting and Stopping the Server

1. Stop the Server: Press `Ctrl + C` in the terminal to stop the server.