**#2 Node.js + Express + Typescript + ESlint setup**

**Code editor** – Visual Studio Code

**Node js**

* enable javascript to run into the server (<https://nodejs.org/en>), download LTS for the longer support. Install it in your computer. Use the default installation.
* Check the node.js version by Command Prompt
* ***node --version***

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* For the node package manager just type ***npm –version***

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Lets create the folder for our development. Create folder and go to powershell or cmd. And then jus type ***code .***

It will appear into you folder.

* Create backend folder and get into the folder by terminal ***cd backend*** to get into the folder

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* Type ***npm init -y*** . it will creating the package file

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* Install the typescript. ***npm install –save-dev typescript*** . it will create the dependendies for our project to use the typescript.A screen shot of a computer code

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* Type ***npx tsc –init*** for the typescript configuration. Different between NPM & NPX is NPX doesn’t install the packages and executes packages A screen shot of a computer

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Install the Express

* **Express.js** is a **backend web framework for Node.js** that simplifies building web applications and APIs. It provides a minimal and flexible way to handle routing, middleware, and HTTP requests/responses.
* **Key Features of Express.js**
* ✅ **Lightweight & Fast** – It’s minimal but powerful, letting you build applications quickly.  
  ✅ **Routing System** – Easily define routes for different HTTP methods (GET, POST, PUT, DELETE).  
  ✅ **Middleware Support** – Add custom logic, authentication, logging, and more.  
  ✅ **Easy API Creation** – Ideal for building RESTful APIs.  
  ✅ **Template Engine Support** – Use EJS, Pug, or Handlebars to render dynamic HTML.
* Create other dependencies by  A screen shot of a computer code

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* We install the dependencies into our development. Can use latest version by ***npm i express@latest***A screen shot of a computer

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* Create file rename it to ***server.ts*** and do this A screen shot of a computer program

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* Run the file by type ***node server.ts*** . it will appear the error because node can be read by js file only. A computer screen with text

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* So, we must convert the **ts** file into the  **js** file by do this. It will convert the ts file  A screenshot of a computer

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* Run it again by type ***node server.js*** it will run the fileA black screen with white text

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* Go to the web browser and go to URL localhost:5000. And it successfully deploy to the host A blue and white rectangle with a black stripe

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* Create ***src*** folder and put the server.ts in thereA screenshot of a computer

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* Go to tsconfig.json and search for outDir and change the scriptA screen shot of a computer

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* Save file and run  ***npx tsc*** it will create the folder and the intergrate file
* We can run it as ***node dist/server.ts*** but it will annoy to type this when we restarting the server. So we use ***nodemon*** which is we use in **Development only**. We don’t use it in production A screen shot of a computer

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* Install the TSNode also for our developmentA screenshot of a computer program

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  AI-generated content may be incorrect.
* Add some script at package json to setup automatically start the serverA computer screen with text and numbers

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* Change the main in package json for the production use. Nodemon not suitable to be use in productionA screen shot of a computer program

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* Install eslint in devA screen shot of a computer

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* We can check our code which is the code that we write is okey or not. Just type that command. We must ddo something if it appear red A screen shot of a computer

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* Create another file and rename it as ***.gitignore*** to github. Copy the text in this link, and then paste into our file

<https://github.com/codinginflow/MERN-course/blob/Final-project/backend/.gitignore>

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Setup MongoDB

* Create cluster
* Install ***npm i dotenv***
* Install ***npm i mongoose*** object modeling for node.js
* Install ***npm i envalid***