**Typescript Node Express Server SetUp Project**

Objective: This document defines the steps to be taken to set up the project environment.

Tools Required: VS code IDE

Packages Required: Node.js, Typescript, ts-node, nodemon, express, body-parser, cookie-parser, compression, cors

Steps:

* Download VSCode IDE using the link: <https://code.visualstudio.com/download>

Download useful extensions on VS Code such as Prettier and Code Runner.

* Download Node.js using the link: <https://nodejs.org/en/download/prebuilt-installer>

Open terminal on your machine (Type cmd in Search bar on windows machine and press Enter). Now, run node --version to check if node.js has been installed and which version.

Run npm --v also to check for npm version.

* In VS Code, open the directory on which you want to set up the project (*ts-node-express-project* in my case) on your local machine. Also, open terminal on VS Code itself.
* Run npm init -y to set up your project.

A package.json and package-lock.json file would be visible in the project directory.

* Run npm install -D typescript to install typescript.
* Create a file tsconfig.json in the directory and write configurations in it as given below:

{

"compilerOptions": {

"module": "NodeNext",

"baseUrl": "src",

"outDir": "dist",

"sourceMap": true,

"noImplicitAny": true

},

"include": ["src/\*\*/\*"]

}

* Run npm install -D ts-node to install typescript JIT compiler (ts-node).
* Run npm install -D nodemon to install nodemon and the create a file nodemon.json in the project directory. Write below given configurations in it:

{

"watch": ["src"],

"ext": ".ts,.js",

"exec": "ts-node ./src/index.ts"

}

* After that, change package.json file. In *scripts* tag, add below given configuration to start nodemon:

"scripts": {

"start": "nodemon",

"test": "echo \"Error: no test specified\" && exit 1"

}

* Create two folders named *src* and *dist* in the project directory.
* Then create a file index.ts in src directory and write any javascript or typescript code to test the project setup,e.g., console.log(“Hello World”);
* Then run npm start in terminal.
* The code in index.ts will be executed successfully now. If any changes are made to this file, they would be automatically reflected.

*Made by-*

*Ila*

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