Setup Guide

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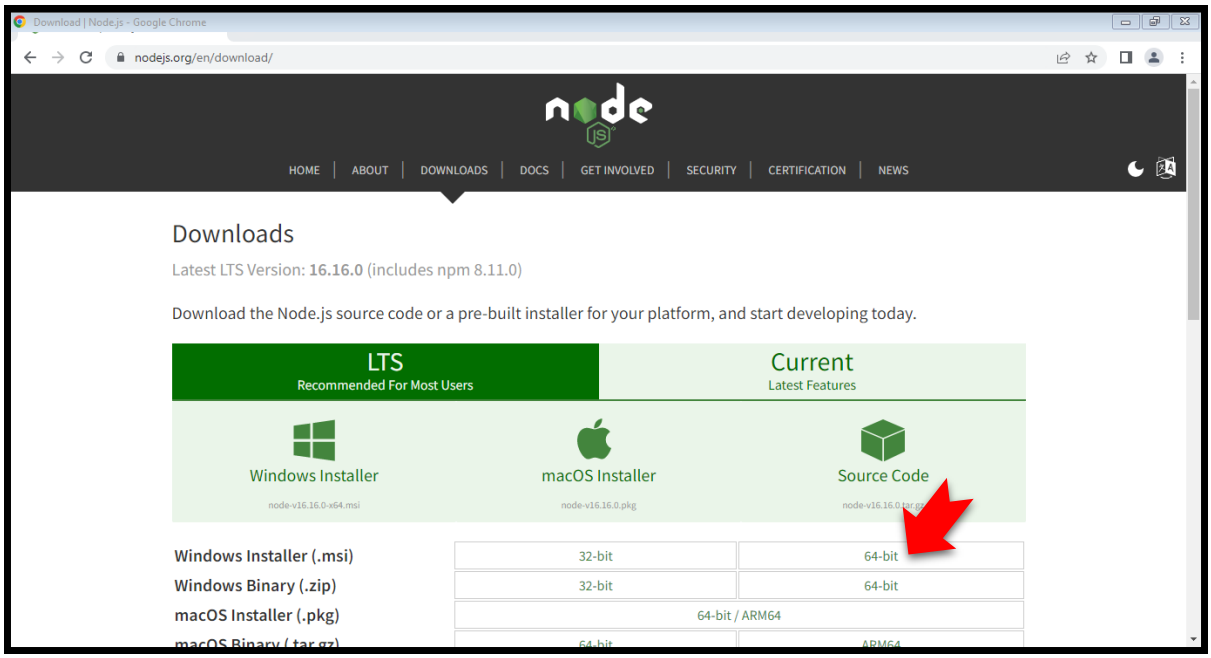
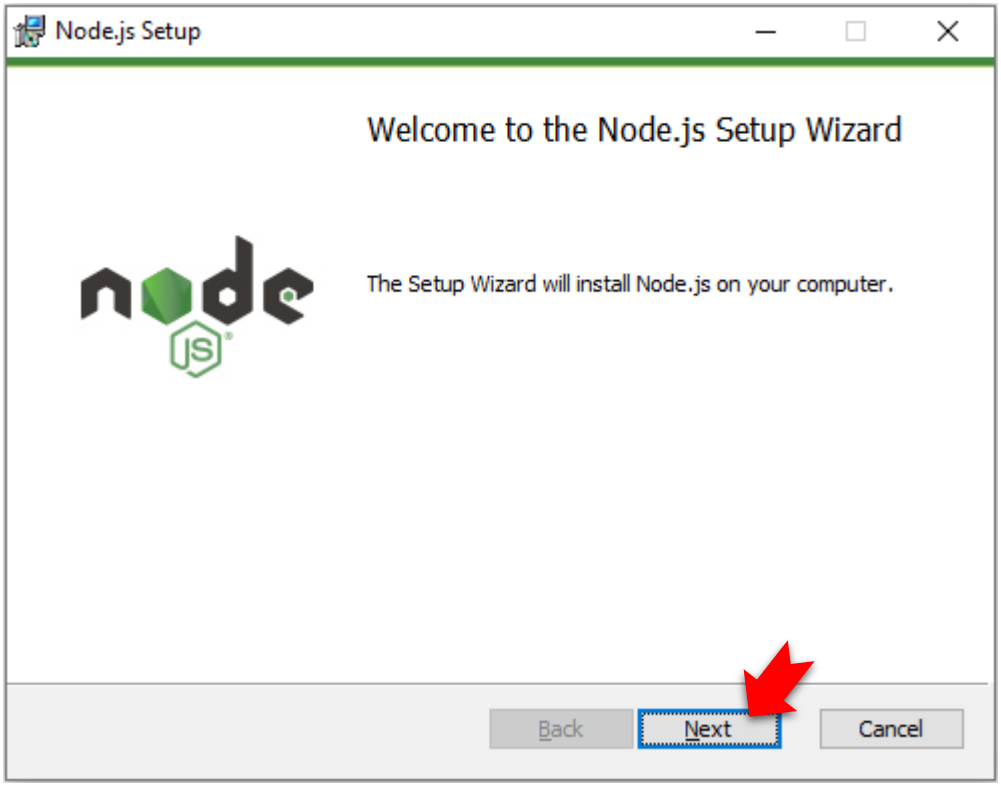
Install NodeJS

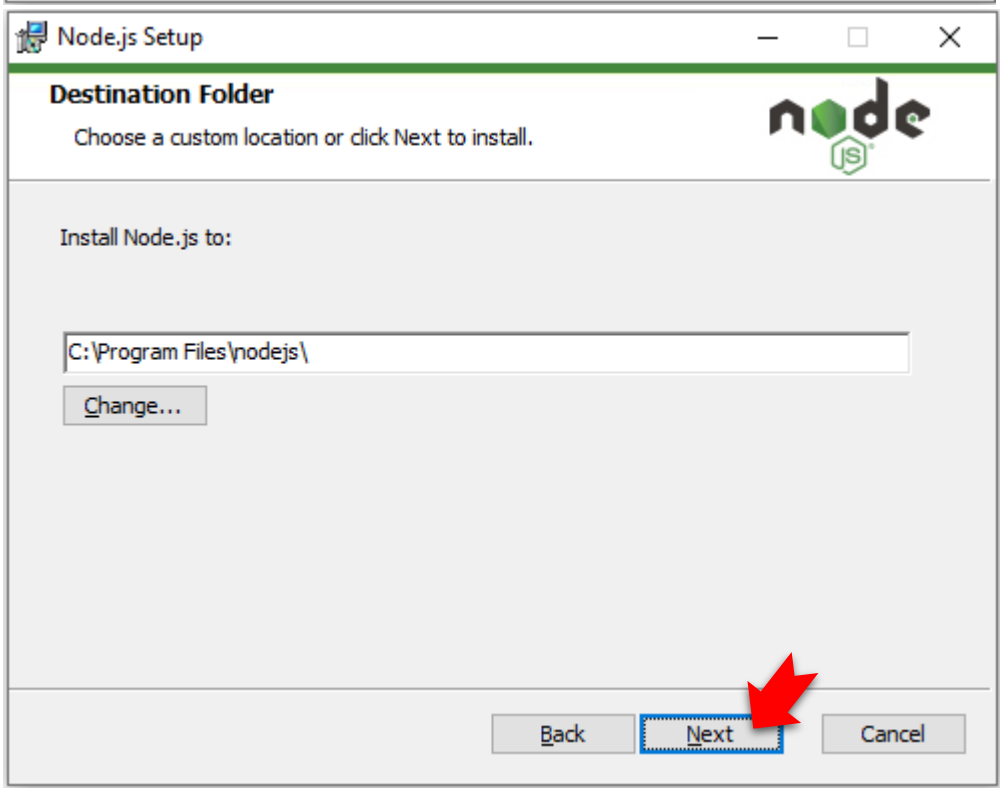
- Go to web-site: https://nodejs.org/en/download

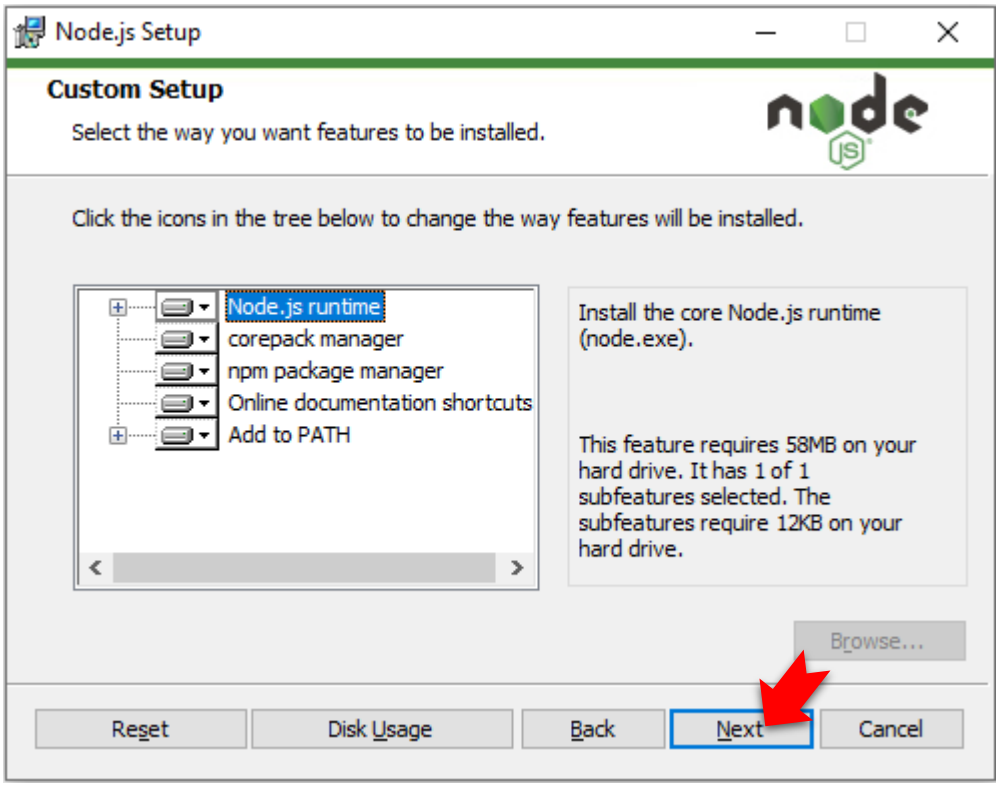


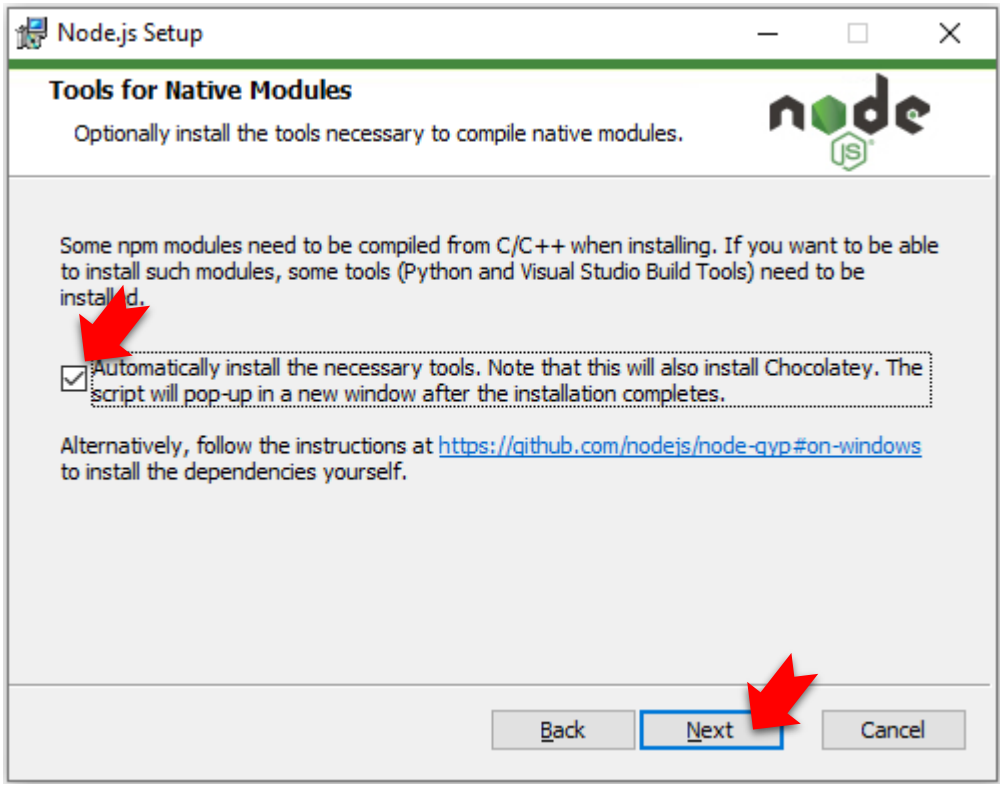
- Download and run the installer

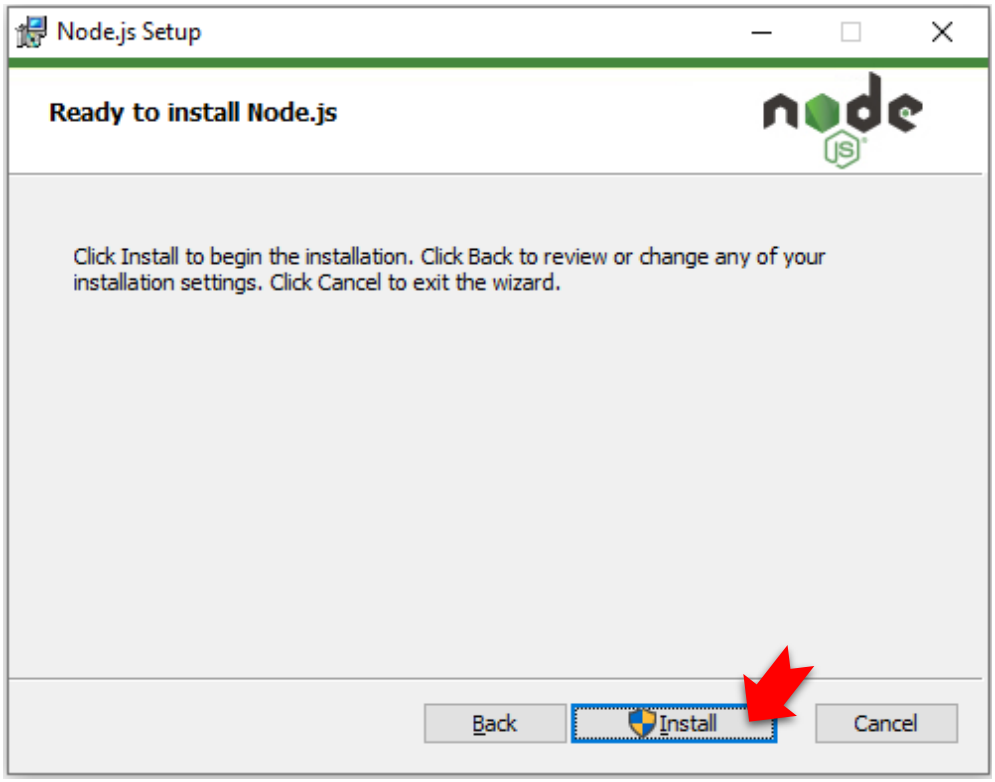


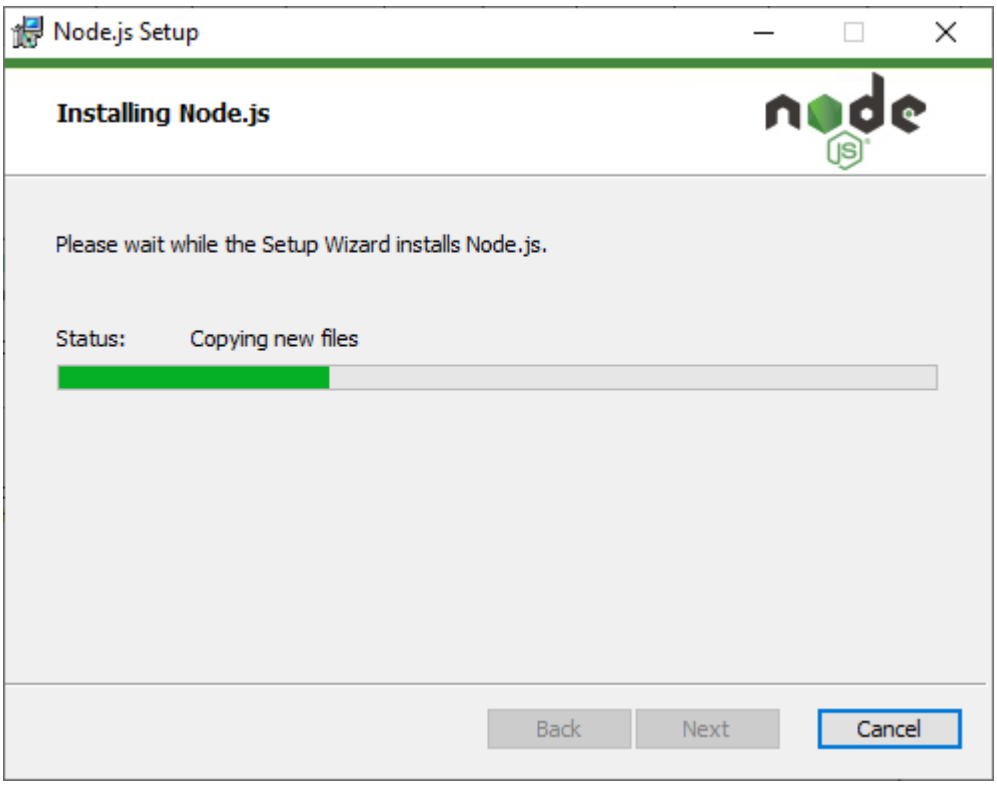

Node.js Setup
End-User License Agreement
Please read the following license agreement carefully
Node.js is licensed for use as follows:
Copyright Node.js contributors. All rights reserved.
Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to
persons to whom the Software is furnished to do so, subject
I accept the terms in the License Agreement
Print
Back
Next
Cancel

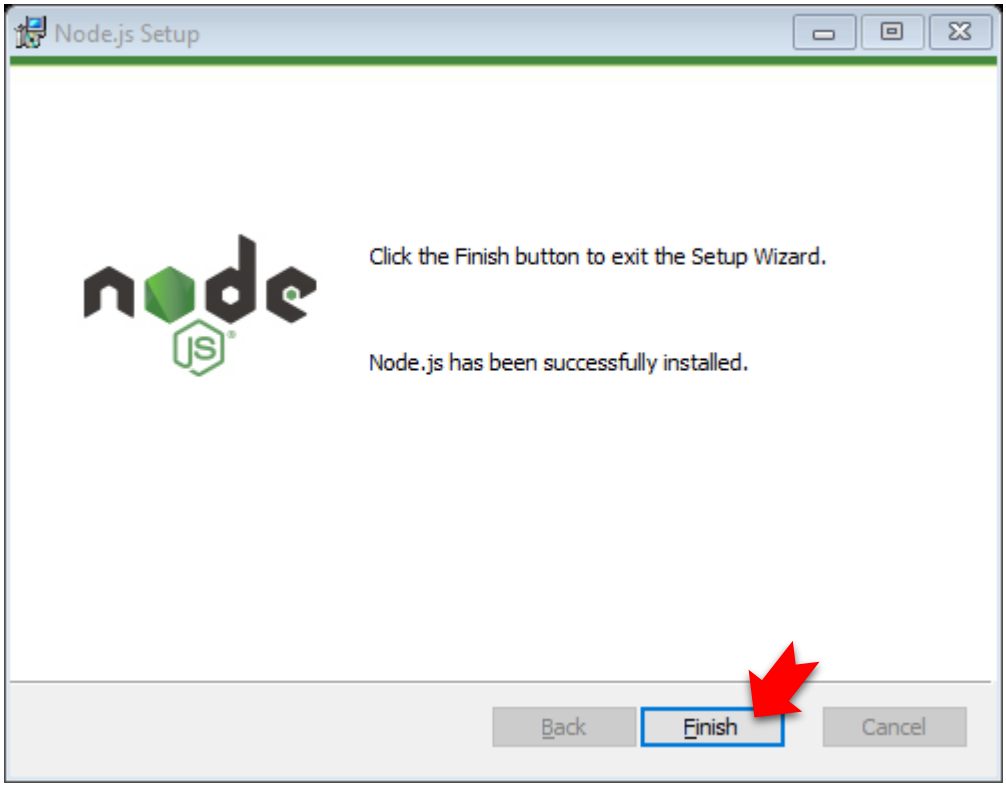

Node.js Setup
Destination Folder
Choose a custom location or click Next to install.
Install Node.js to:
C:\Program Files\nodejs\
Change...
Back
Next
Cancel

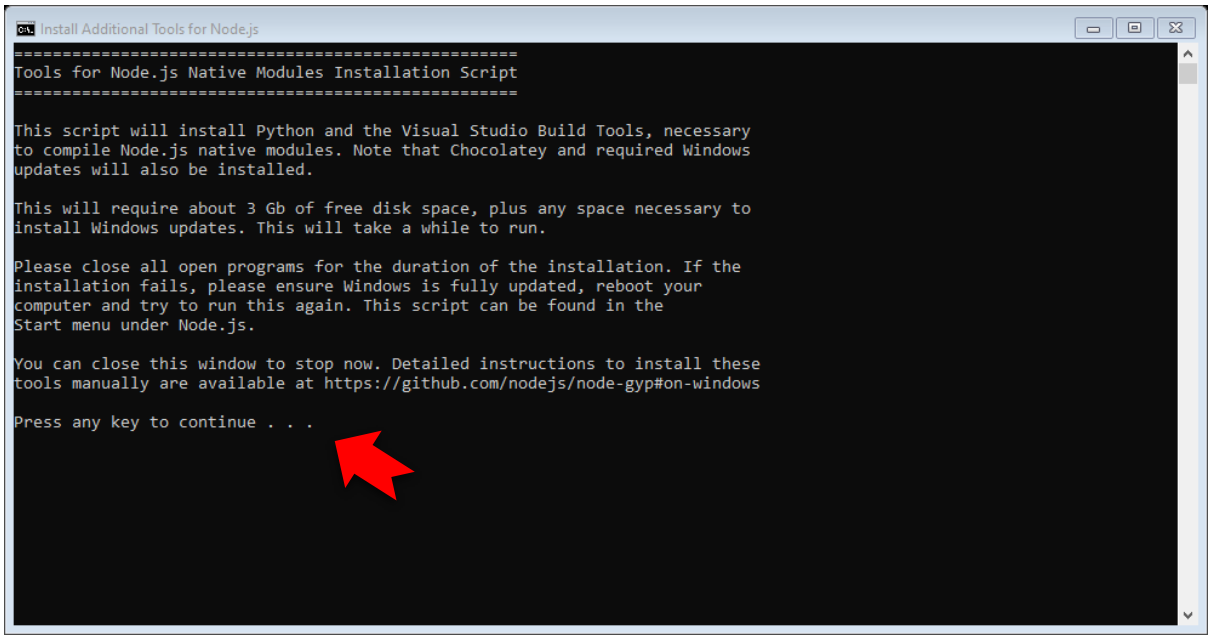

Node.js Setup
Custom Setup
Select the way you want features to be installed.
Click the icons in the tree below to change the way features will be installed.
Node.js runtime
corepack manager
npm package manager
Online documentation shortcuts
Add to PATH
Install the core Node.js runtime (node.exe).
This feature requires 58MB on your hard drive. It has 1 of 1 subfeatures selected. The subfeatures require 12KB on your hard drive.
Browse...
Reset
Disk Usage
Back
Next
Cancel


Node.js Setup
Tools for Native Modules
Optionally install the tools necessary to compile native modules.
Some npm modules need to be compiled from C/C++ when installing. If you want to be able to install such modules, some tools (Python and Visual Studio Build Tools) need to be installed.
Automatically install the necessary tools. Note that this will also install Chocolatey. The script will pop-up in a new window after the installation completes.
Alternatively, follow the instructions at https://github.com/nodejs/node-gyp#on-windows to install the dependencies yourself.
Back
Next
Cancel

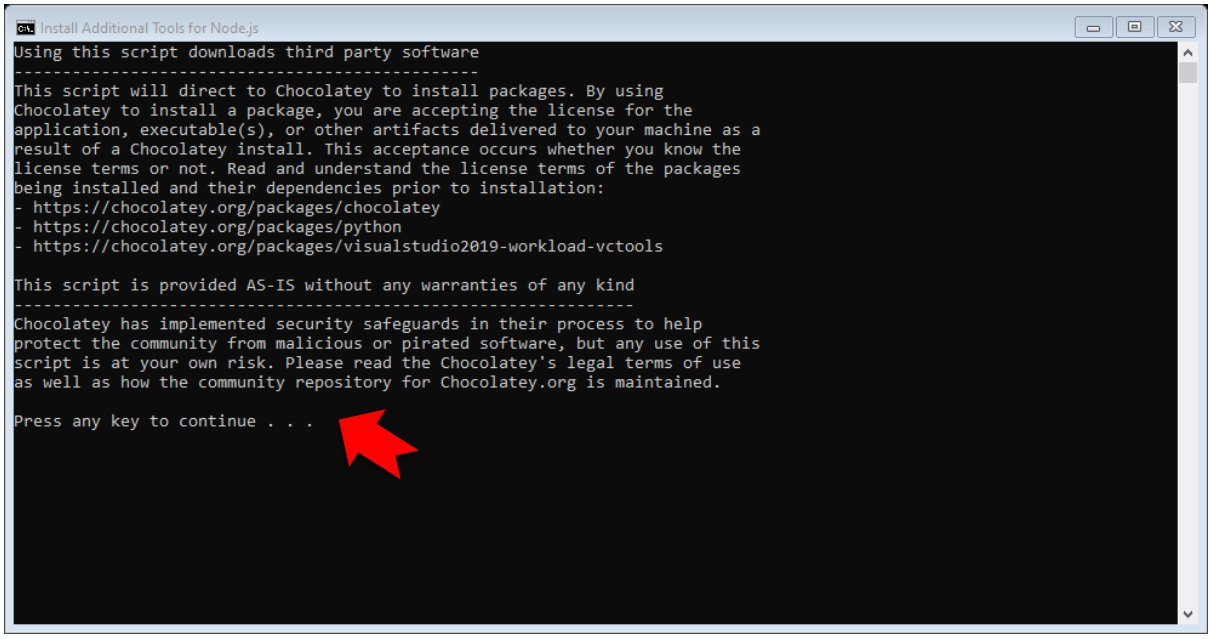

Node.js Setup
Ready to install Node.js
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.
Back
Install
Cancel


Node.js Setup
Installing Node.js
Please wait while the Setup Wizard installs Node.js.
Status: Copying new files
Back
Next
Cancel

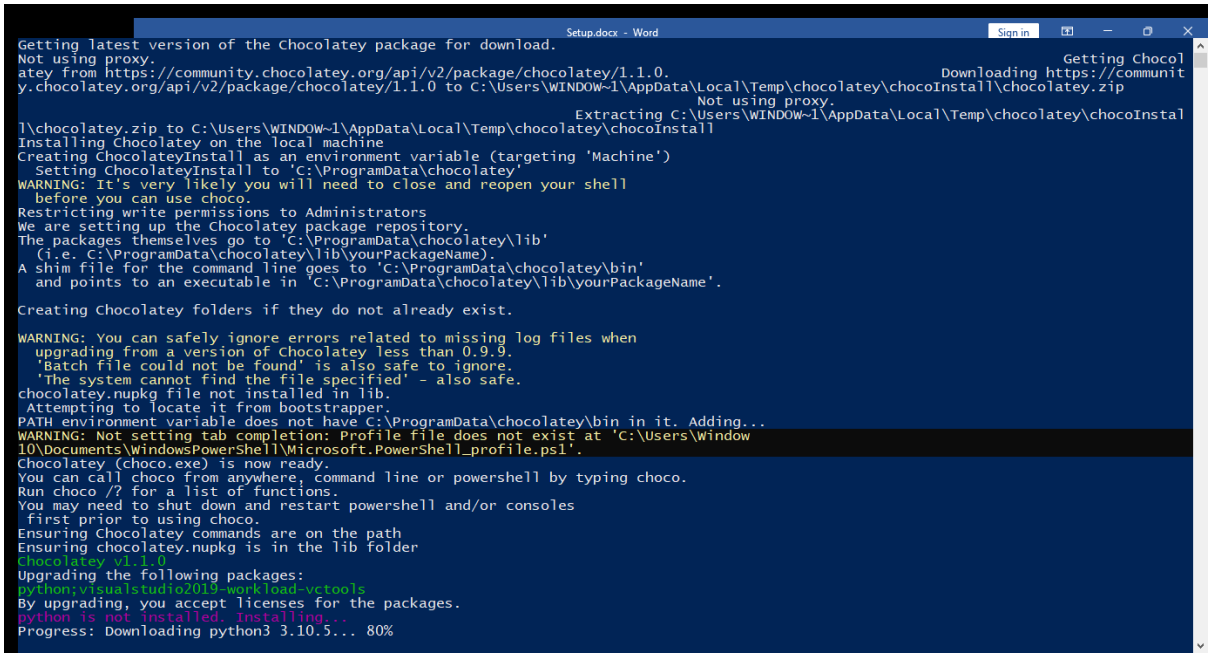


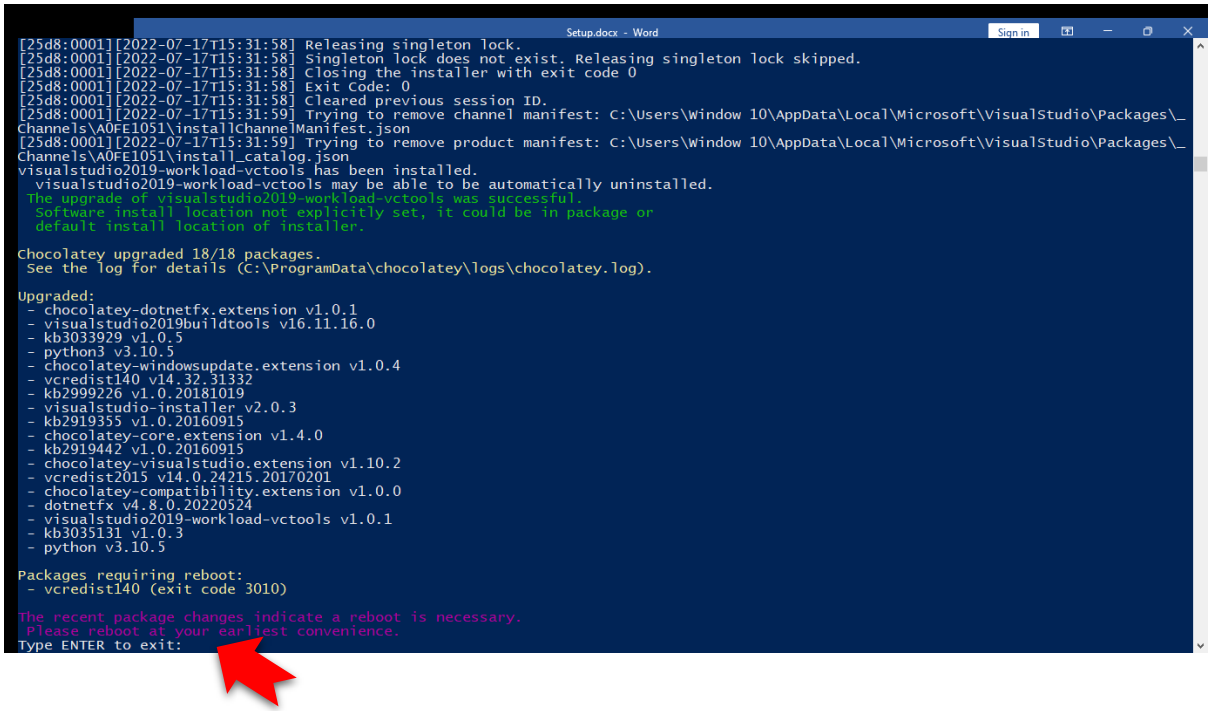


Press any key to continue…



Press any key to continue…

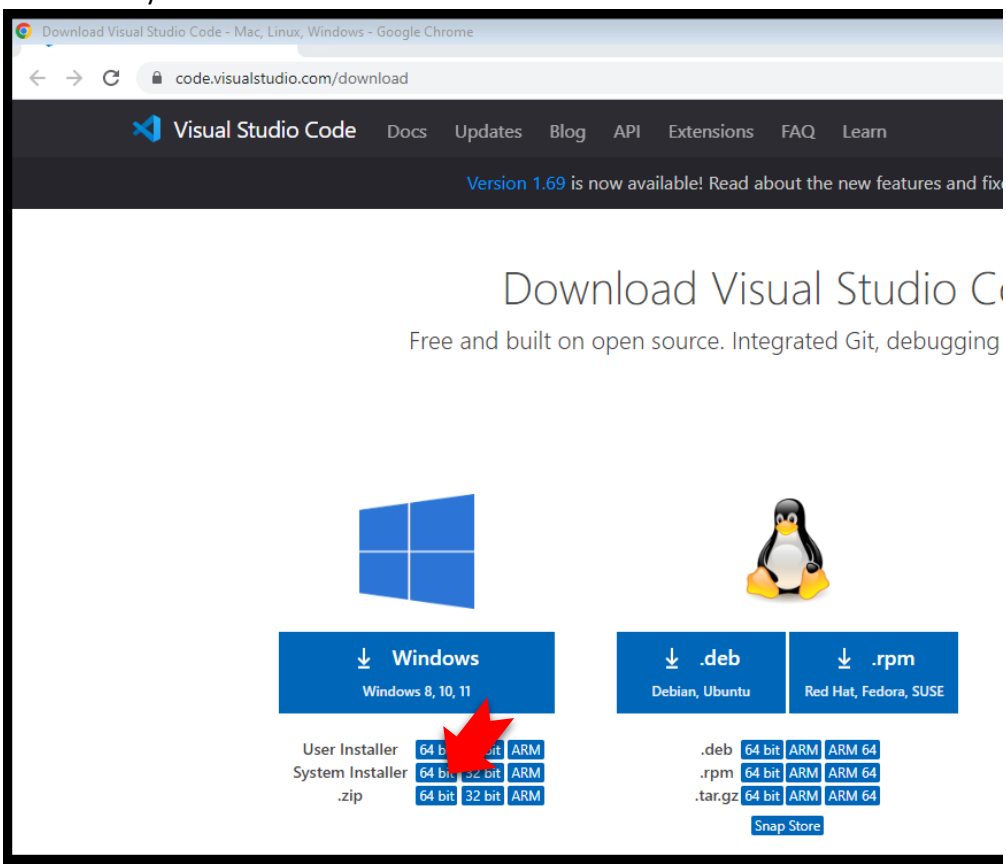




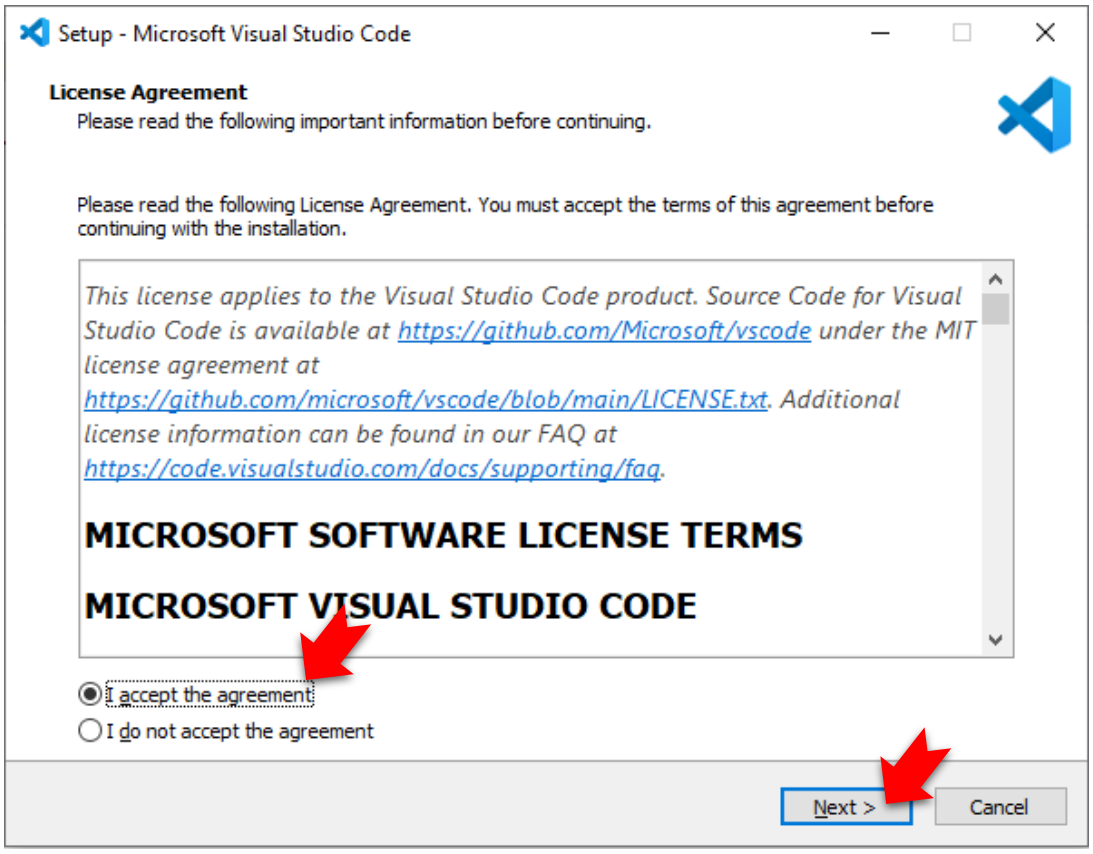
Press **Enter** to exit

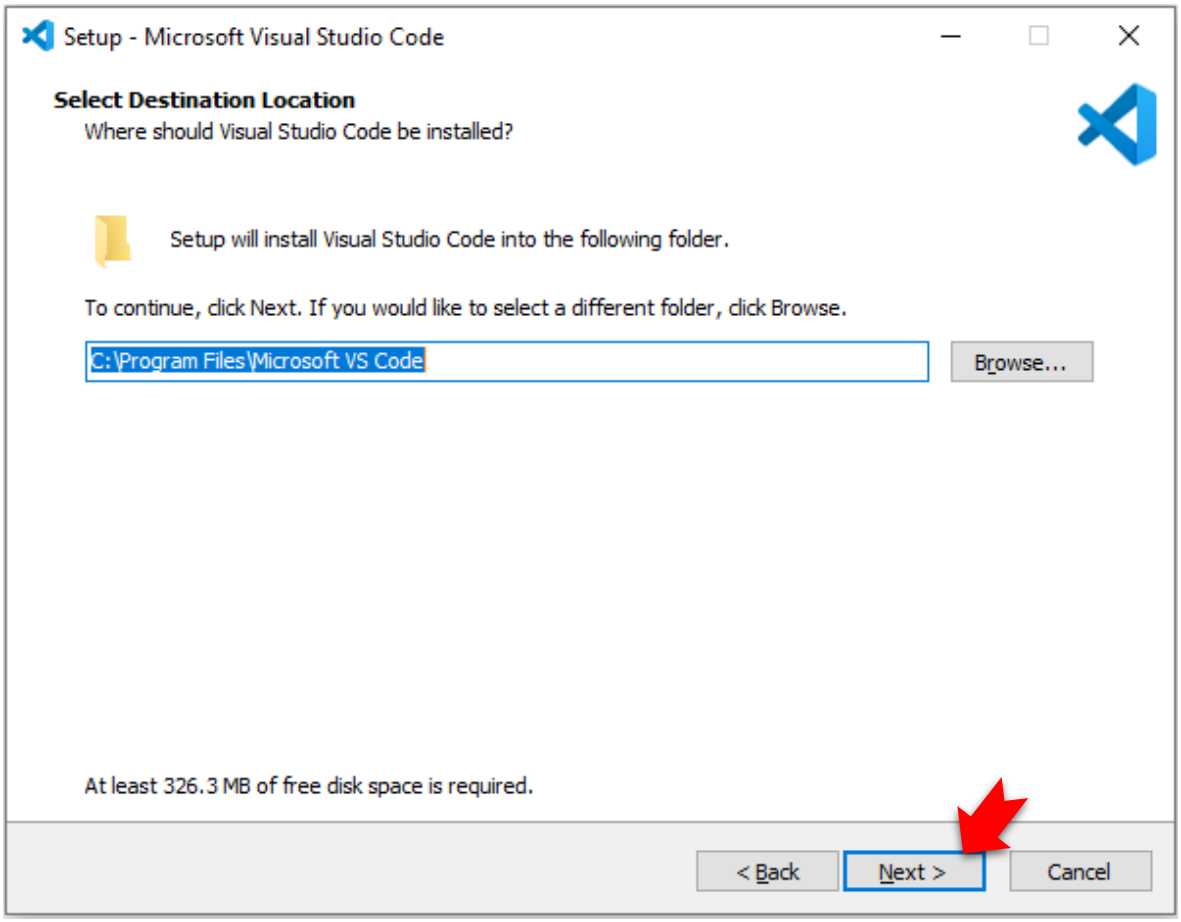
Install Visual Studio Code

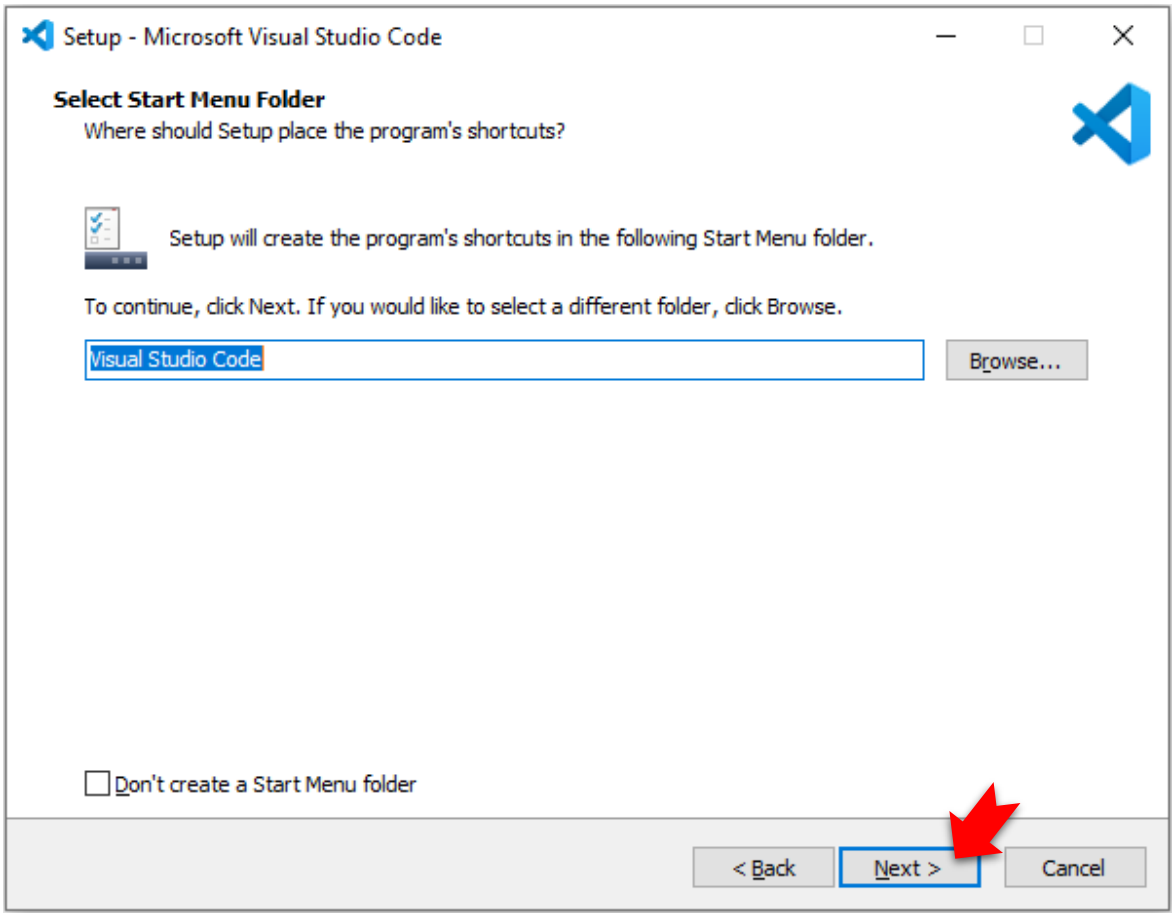
- Go to website: https://code.visualstudio.com/download
- Download System installer

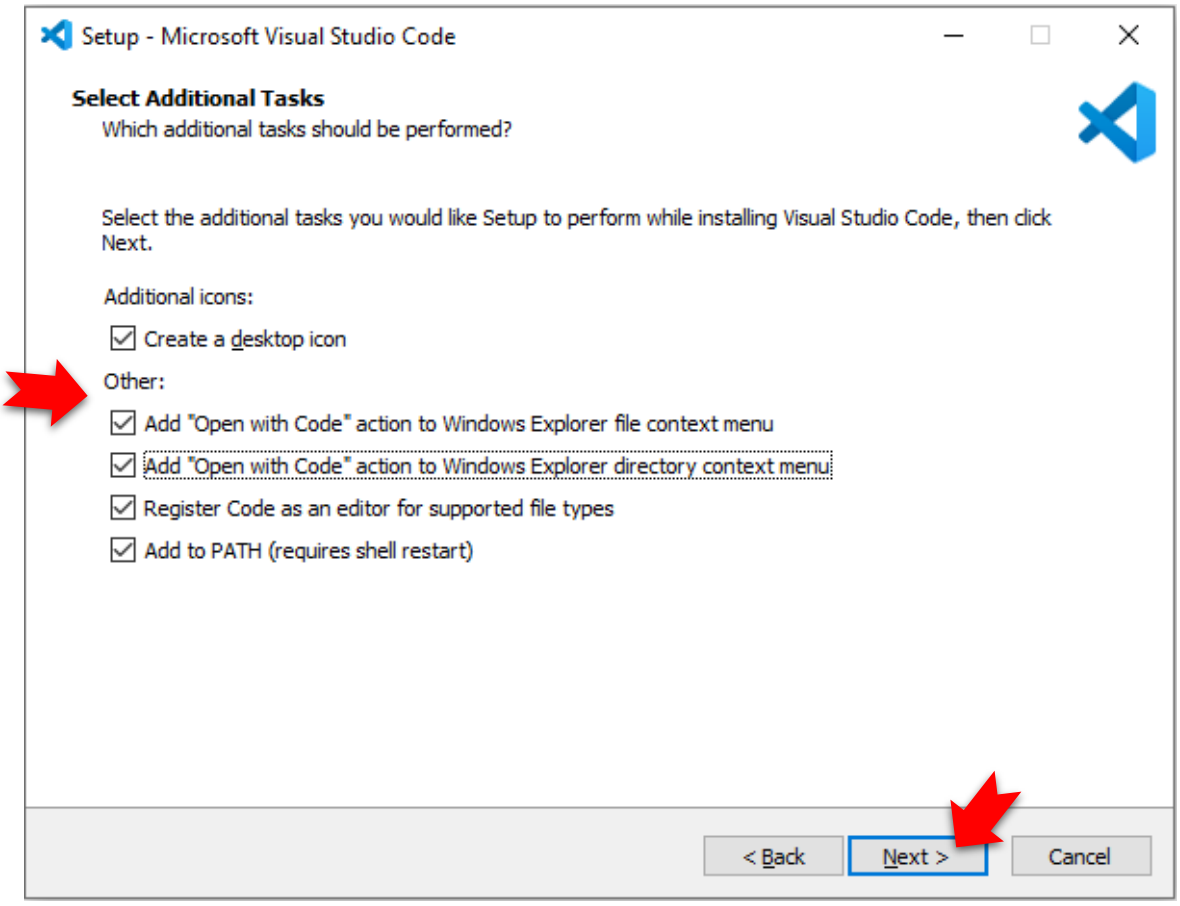


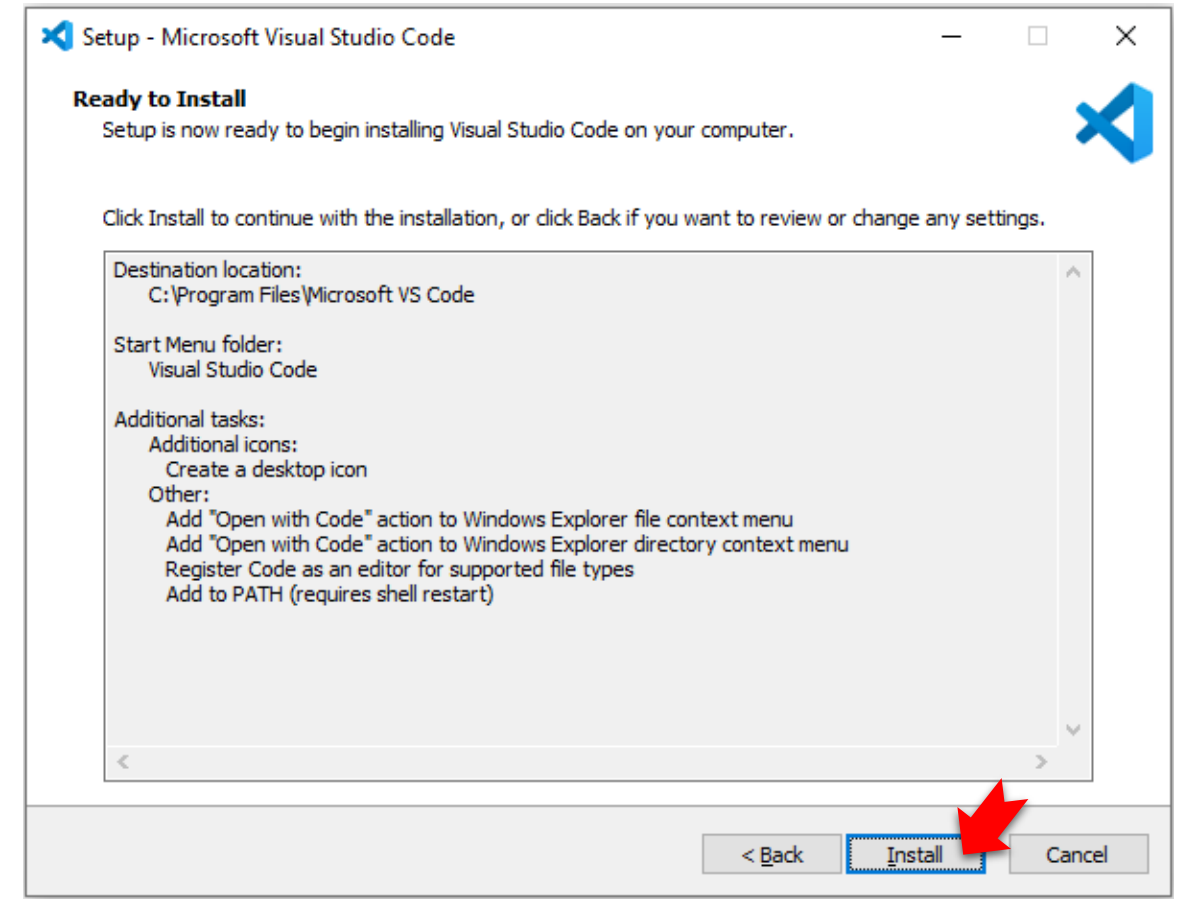
- Follow the installation wizard:

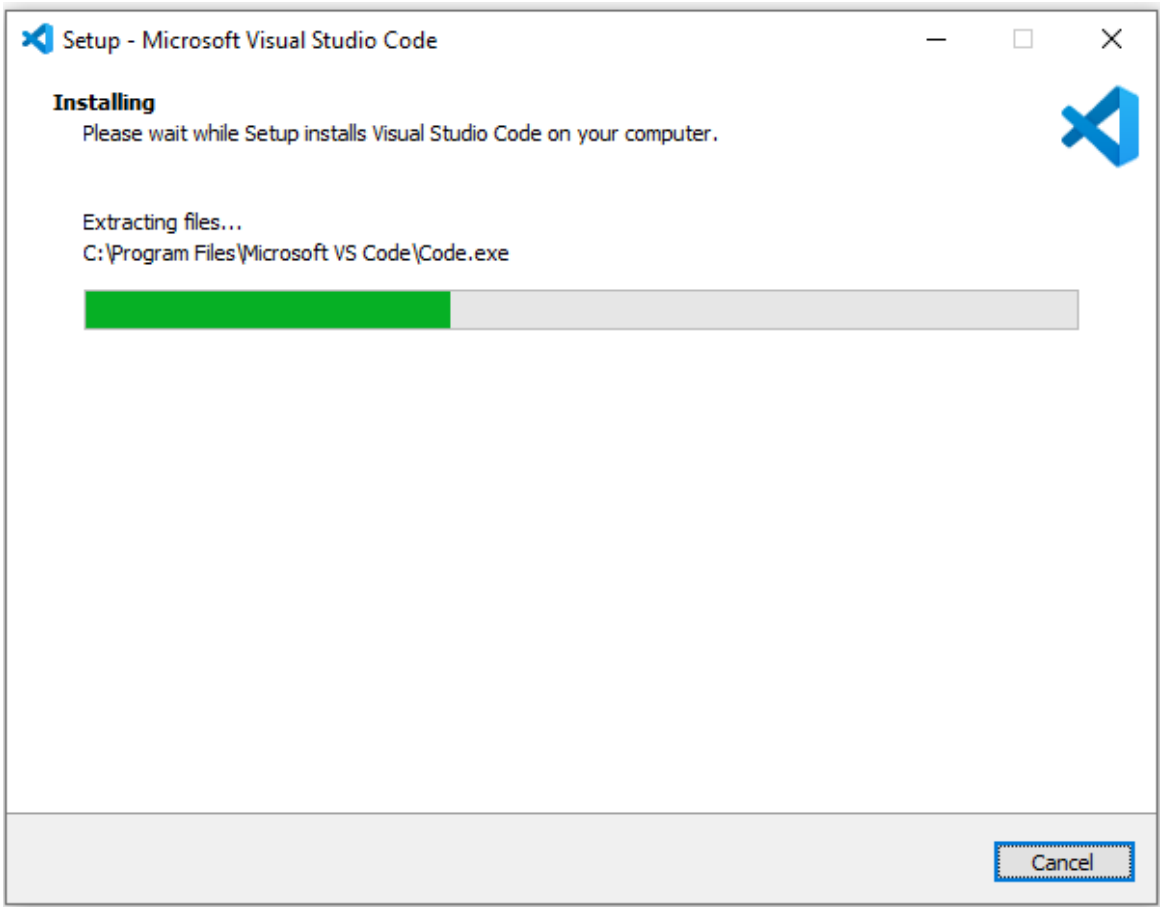


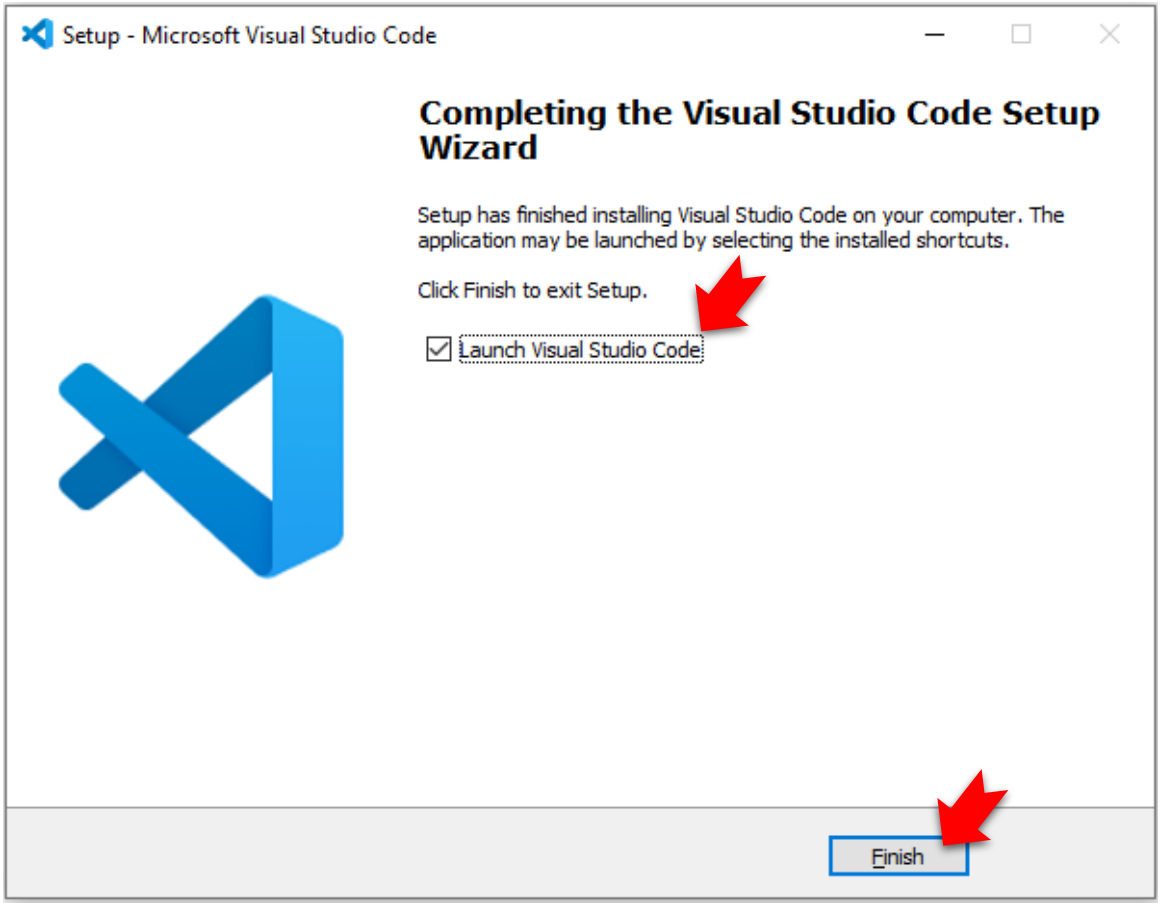

Setup - Microsoft Visual Studio Code
Select Destination Location
Where should Visual Studio Code be installed?
Setup will install Visual Studio Code into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\Microsoft VS Code
Browse...
At least 326.3 MB of free disk space is required.
< Back
Next >
Cancel

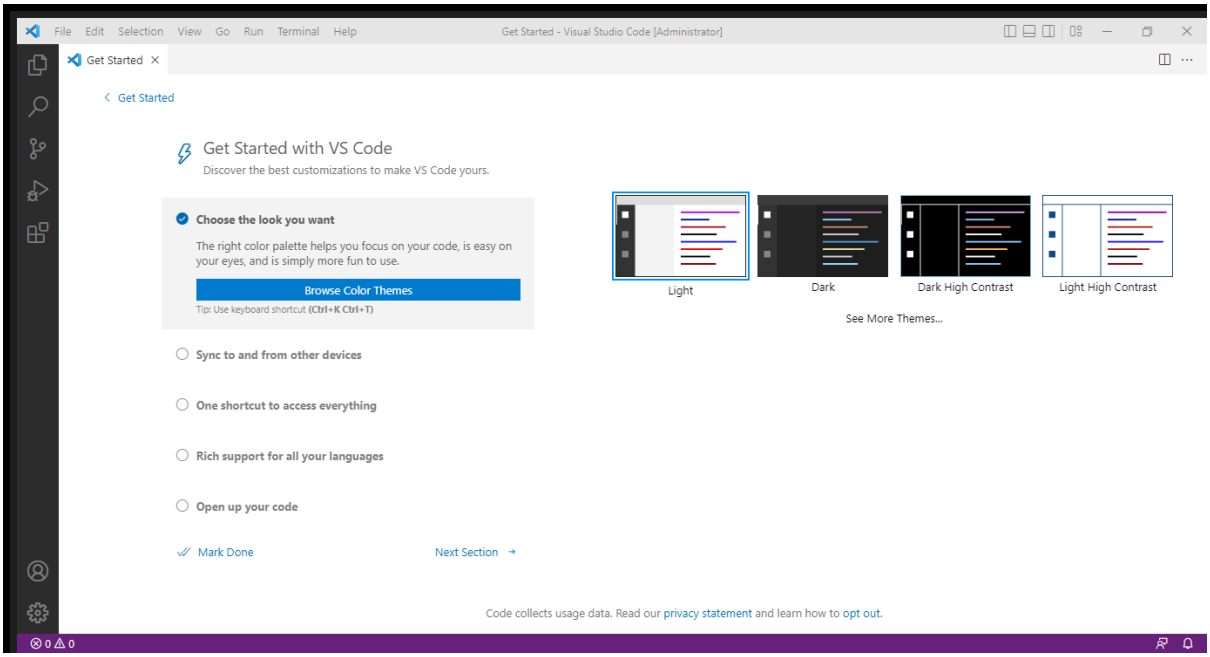

Setup - Microsoft Visual Studio Code
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
Visual Studio Code
Browse...
Don't create a Start Menu folder
< Back
Next >
Cancel


Setup - Microsoft Visual Studio Code
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing Visual Studio Code, then click Next.
Additional icons:
Create a desktop icon
Other:
Add "Open with Code" action to Windows Explorer file context menu
Add "Open with Code" action to Windows Explorer directory context menu
Register Code as an editor for supported file types
Add to PATH (requires shell restart)
< Back
Next >
Cancel


Setup - Microsoft Visual Studio Code
Ready to Install
Setup is now ready to begin installing Visual Studio Code on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:\Program Files\Microsoft VS Code
Start Menu folder:
Visual Studio Code
Additional tasks:
Additional icons:
Create a desktop icon
Other:
Add "Open with Code" action to Windows Explorer file context menu
Add "Open with Code" action to Windows Explorer directory context menu
Register Code as an editor for supported file types
Add to PATH (requires shell restart)
< Back
Install
Cancel

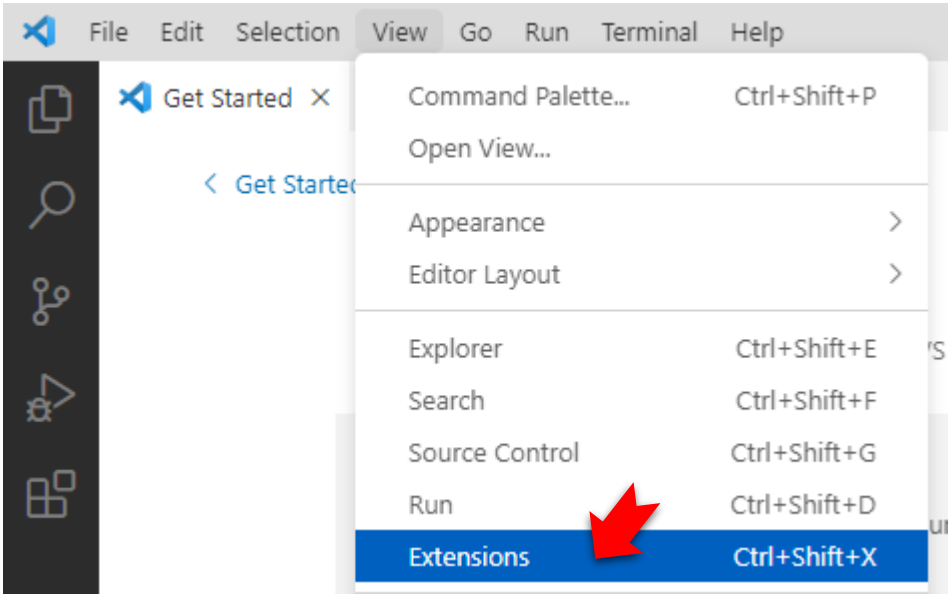

Setup - Microsoft Visual Studio Code
Installing
Please wait while Setup installs Visual Studio Code on your computer.
Extracting files...
C:\Program Files\Microsoft VS Code\Code.exe
Cancel


Setup - Microsoft Visual Studio Code
Completing the Visual Studio Code Setup Wizard
Setup has finished installing Visual Studio Code on your computer. The application may be launched by selecting the installed shortcuts.
Click Finish to exit Setup.
Launch Visual Studio Code
Finish

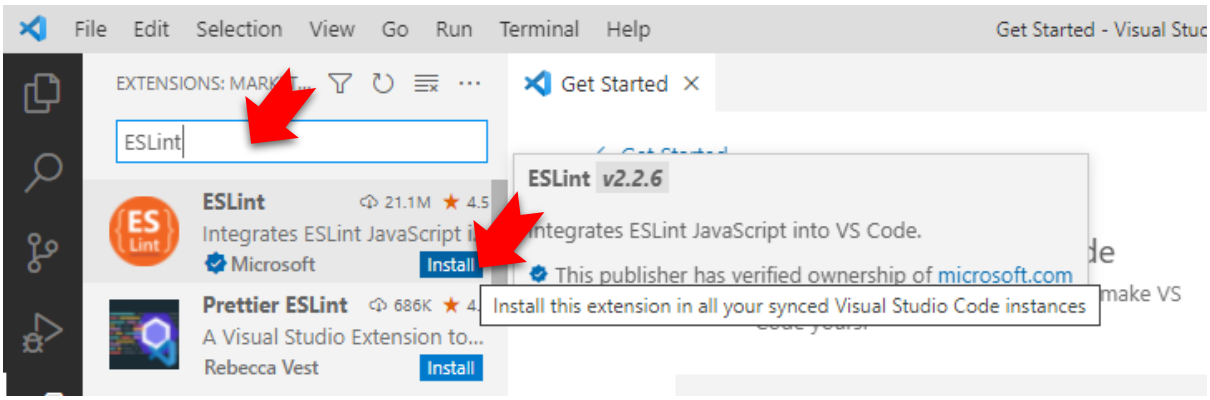

File Edit Selection View Go Run Terminal Help
Get Started - Visual Studio Code [Administrator]
Get Started
Get Started
Get Started with VS Code
Discover the best customizations to make VS Code yours.
Choose the look you want
The right color palette helps you focus on your code, is easy on your eyes, and is simply more fun to use.
Browse Color Themes
Tip: Use keyboard shortcut (Ctrl+K Ctrl+T)
Light
Dark
Dark High Contrast
Light High Contrast
See More Themes...
Sync to and from other devices
One shortcut to access everything
Rich support for all your languages
Open up your code
Mark Done
Next Section
Code collects usage data. Read our privacy statement and learn how to opt out.
0 0

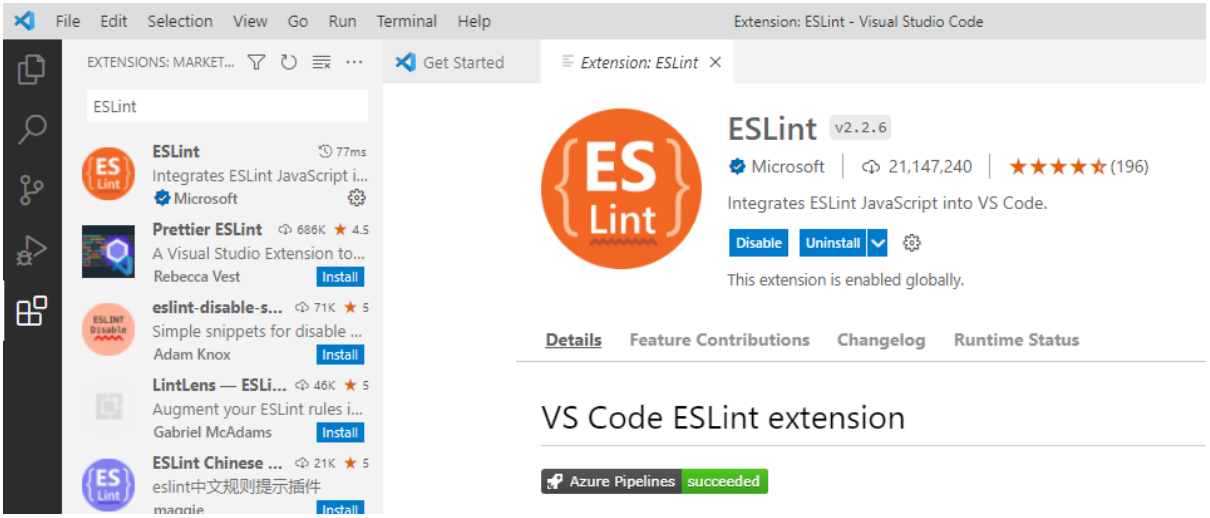
Adding Extensions to Visual Studio Code

- Select **Extensions** command

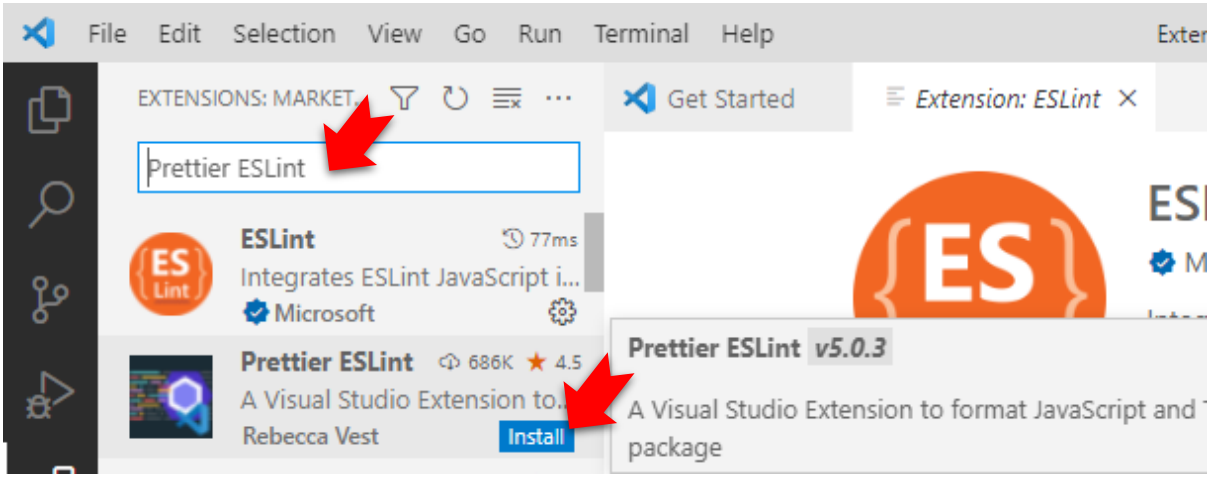


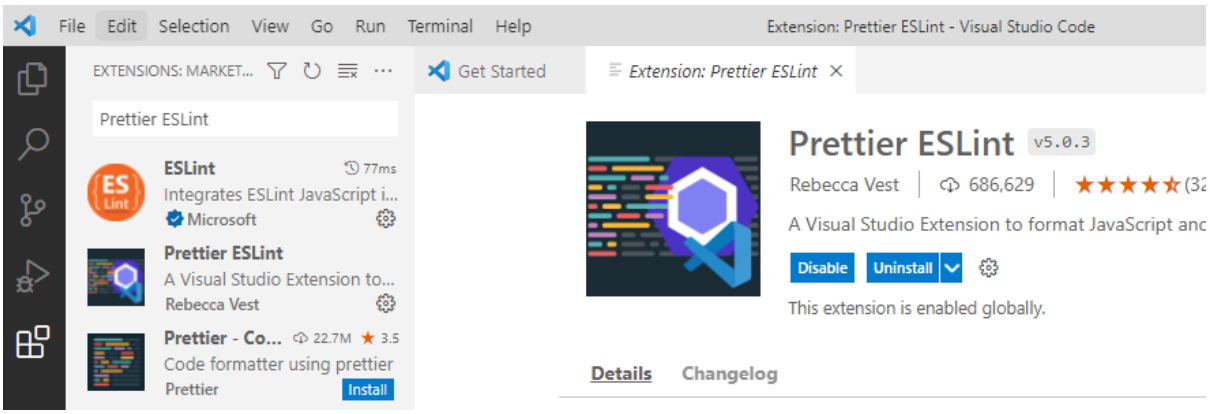
- Install **ESLint**



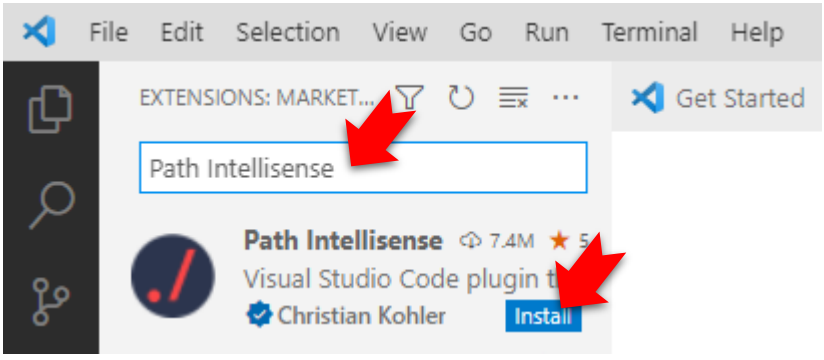


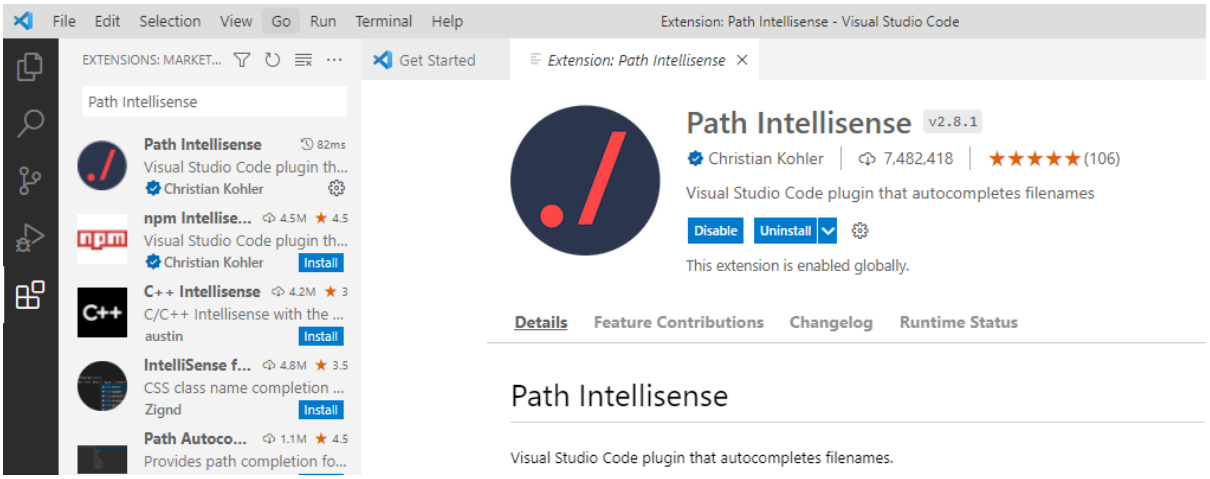
- Install **Prettier ESLint**





- Install **Path Intellisense**

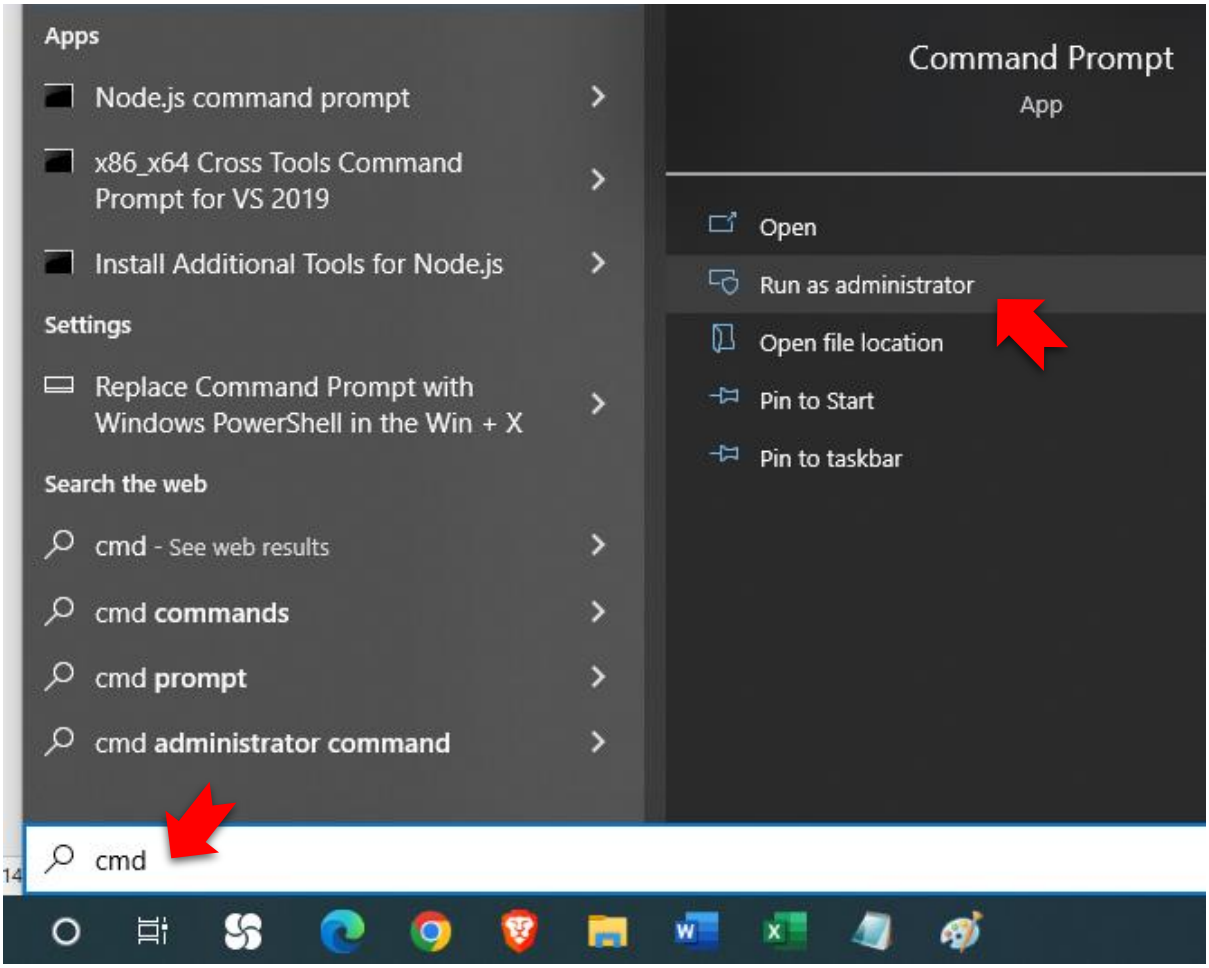




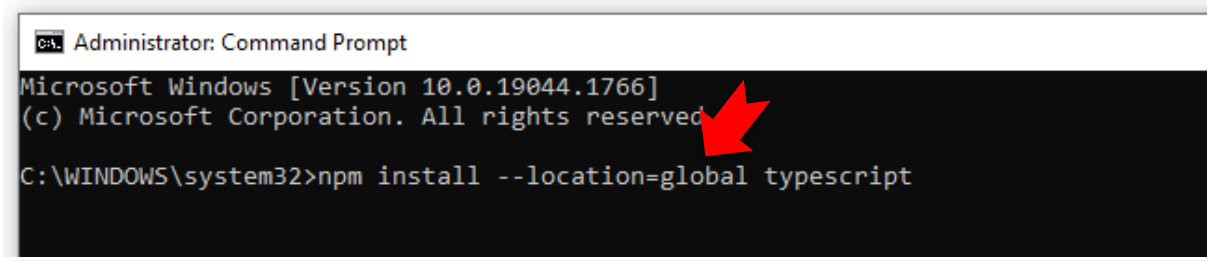
Install TypeScript Compiler

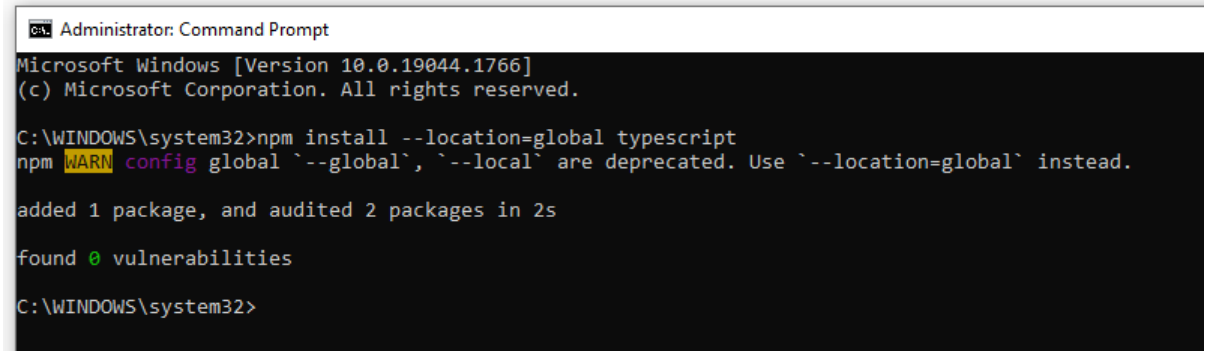
- Click Window **Start** button.

- When the menu appears, just type **cmd** and select **Run as Administrator**



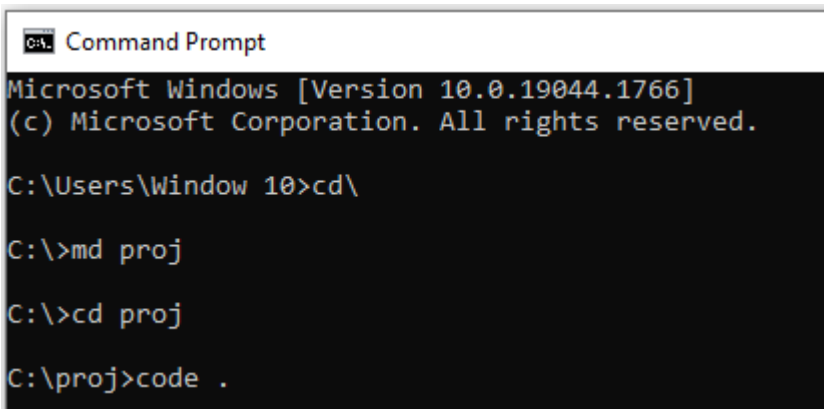
- Under the command box, type **npm install –location=global typescript**



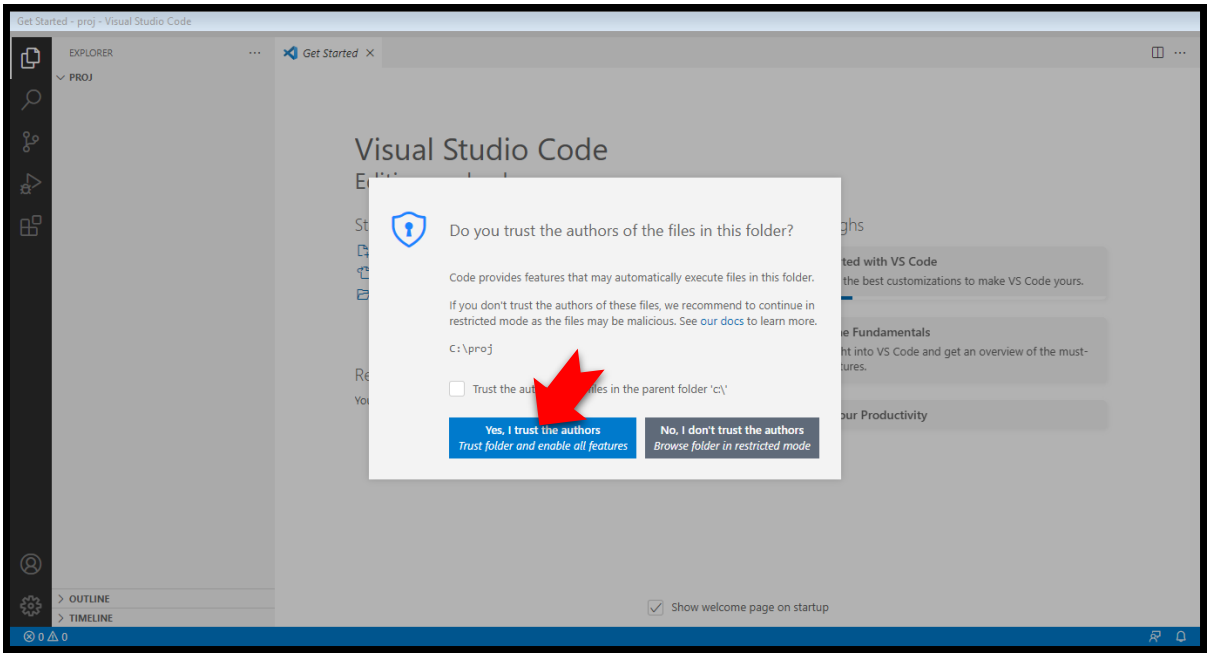


Test Setup

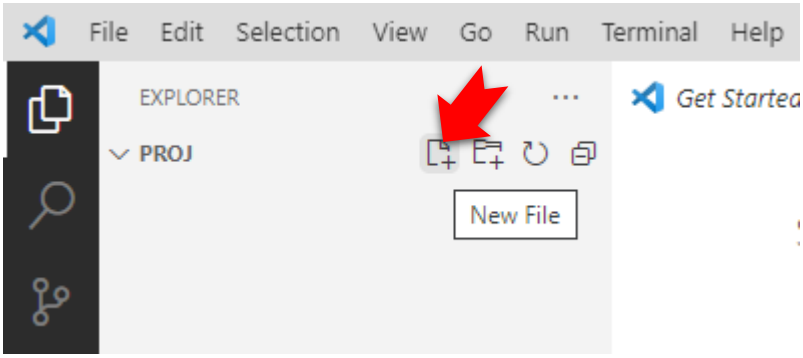
- Start Command Prompt as Administrator
- Type the following commands:
  - cls
  - cd\
  - md proj
  - cd proj
  - code .

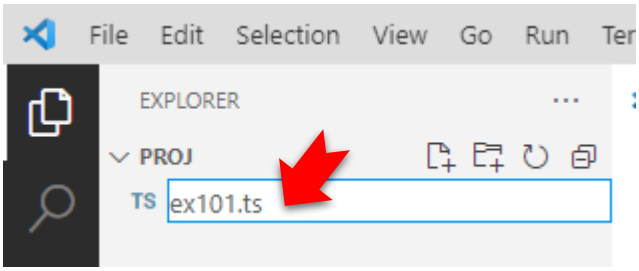


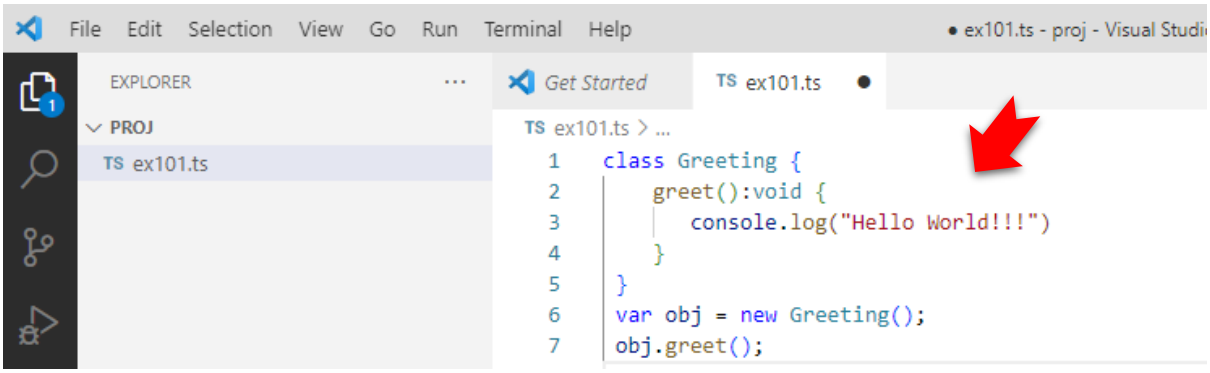
Visual Studio Code will start. If you get the following message, select **Yes**



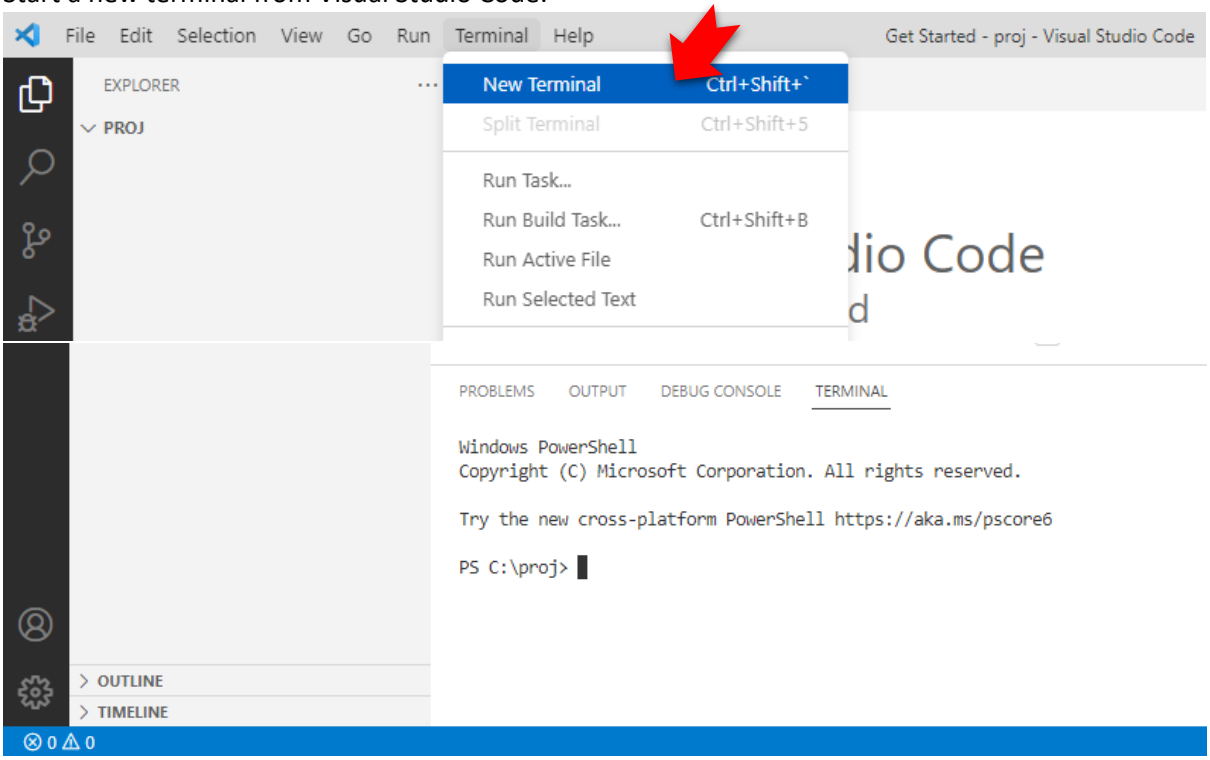
- Create a new sample TypeScript source file:





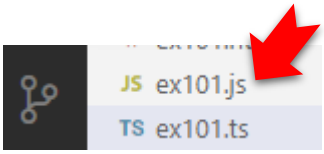


- Save the ex101.ts file
- Start a new terminal from Visual Studio Code:



- Type the command **tsc ex101.ts** in the terminal Window

- If no error, a new ex101.js file will be generated.



Notes: In case you are having problem with running script under VS Code, follow the following steps:

1) Close the Visual Studio Code
2) Press the windows-button on your keyboard
3) Type 'PowerShell'
4) Right-click Windows PowerShell
5) Click Run as Administrator
6) Run the following command and confirm with 'Y'

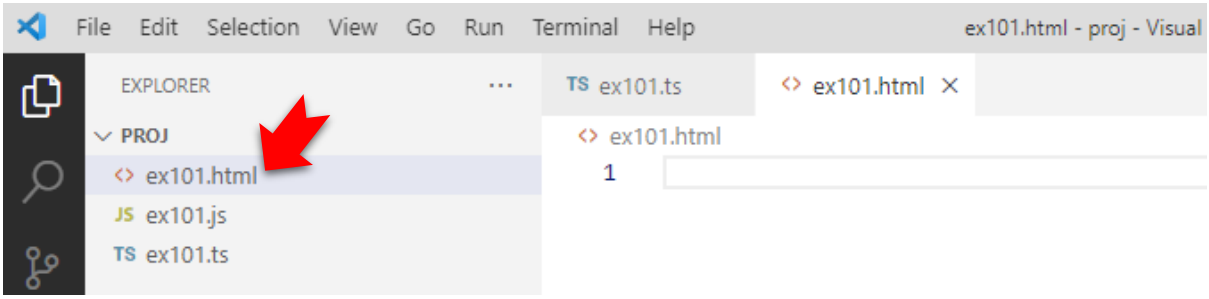
   Set-ExecutionPolicy -ExecutionPolicy RemoteSigned -Scope LocalMachine

7) Close the PowerShell Window

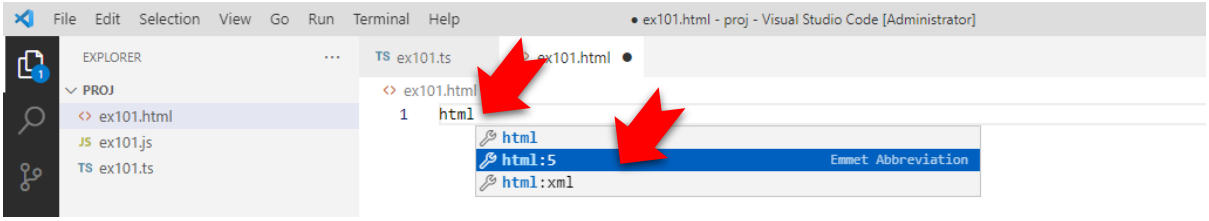
for more information: https://www.roelpeters.be/solved-running-scripts-is-disabled-on-this-system-in-powershell/

8) Restart the Visual Studio and continue with previous exercise

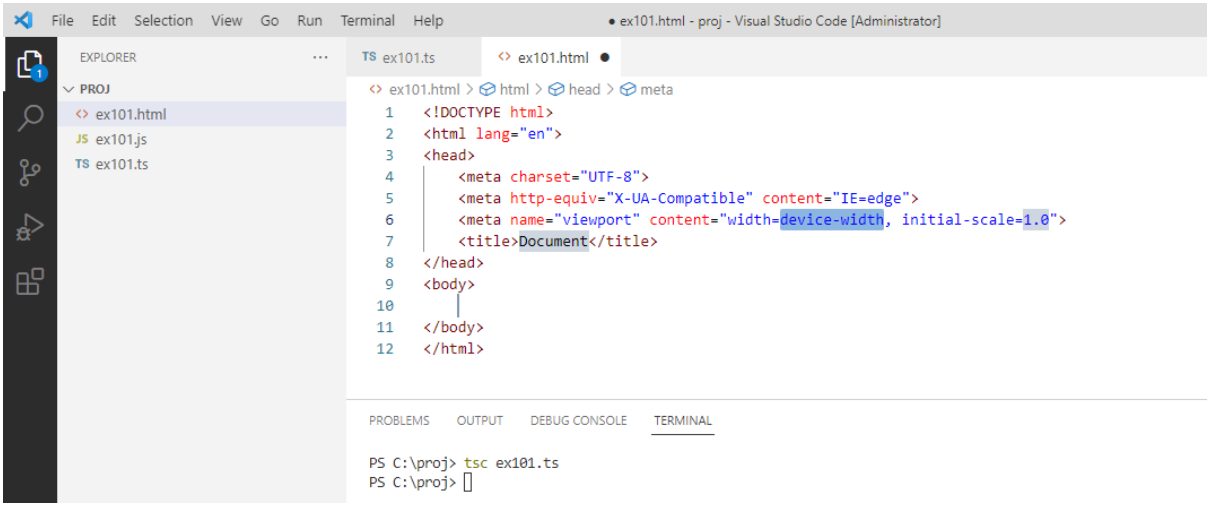
- Create a new **ex101.html** file:



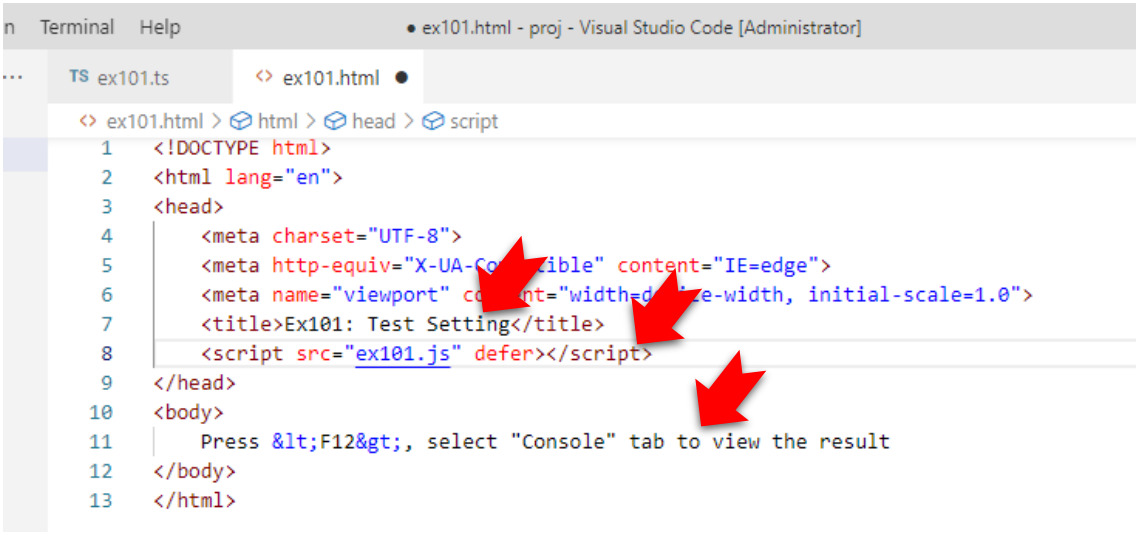
- In the newly created html file, type **html**. In the popup floating menu, select **html:5**



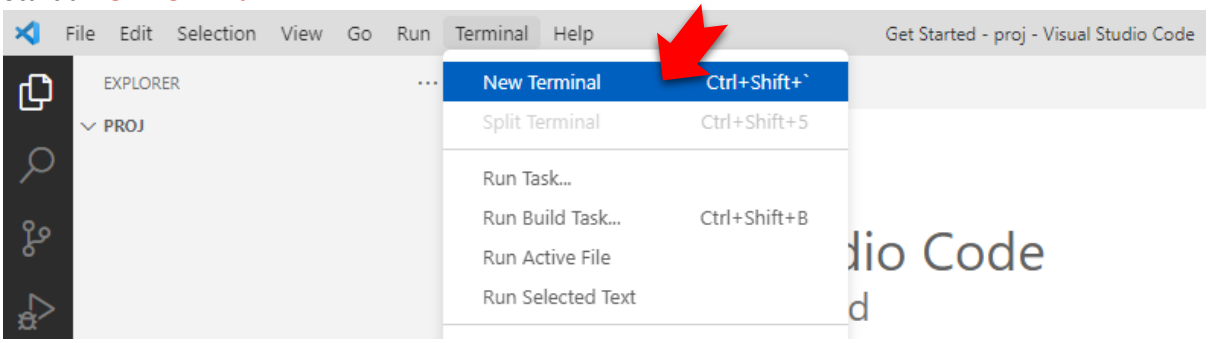
- Press **Enter**



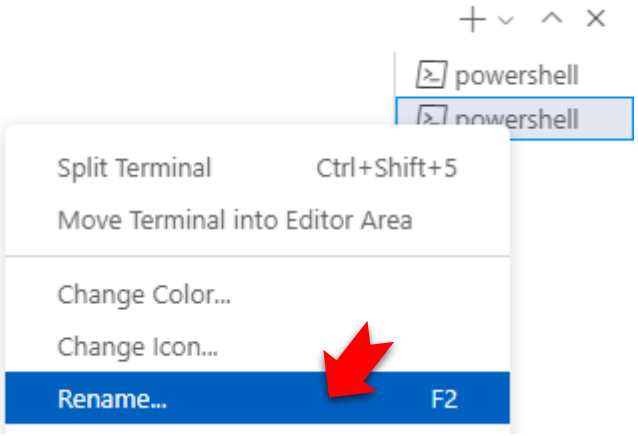
- Add and change the following:



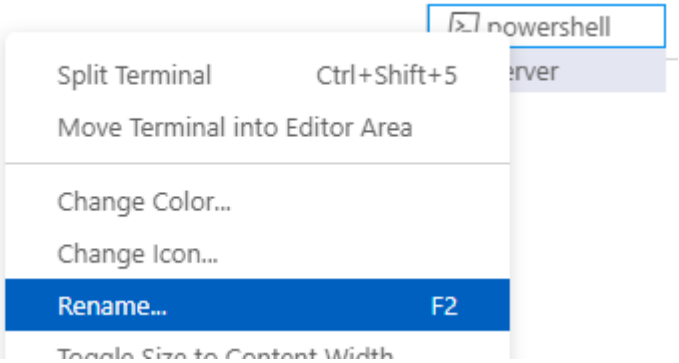
- Save the file
- Start a **New Terminal**



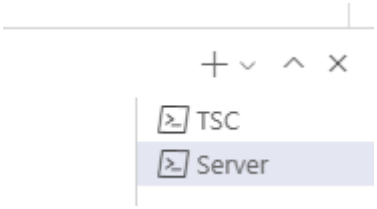
- Now you should have 2 terminal windows. To differentiate them, lets rename them



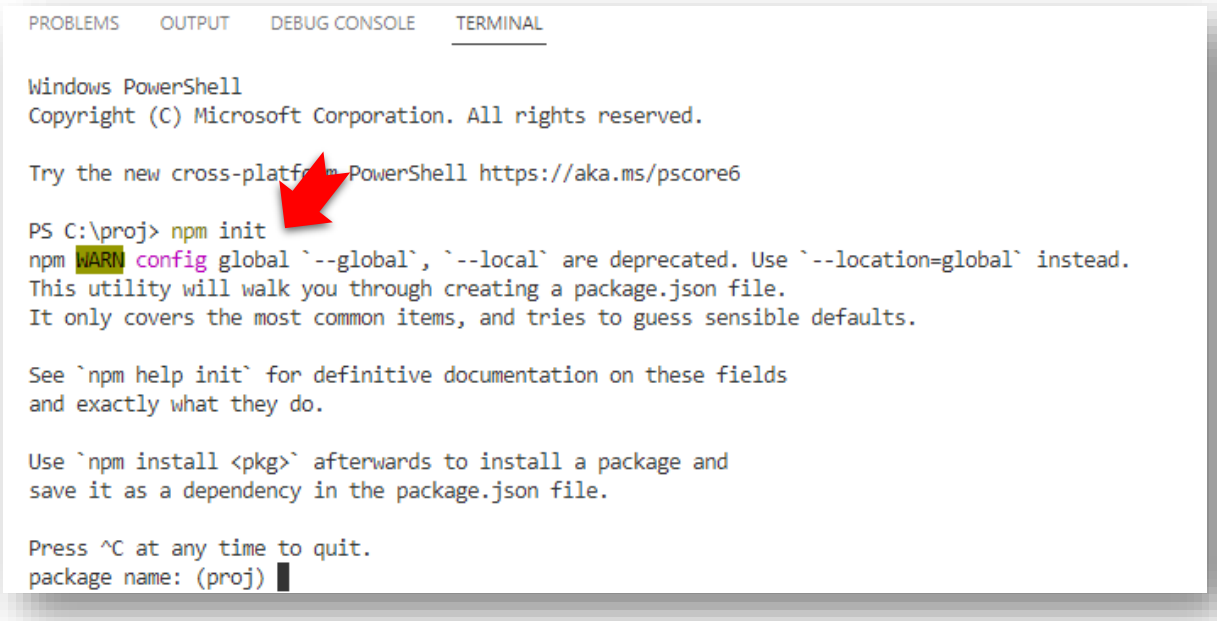
- Rename this Terminal as **Server**
- Let's rename previous Terminal Window as **TSC**



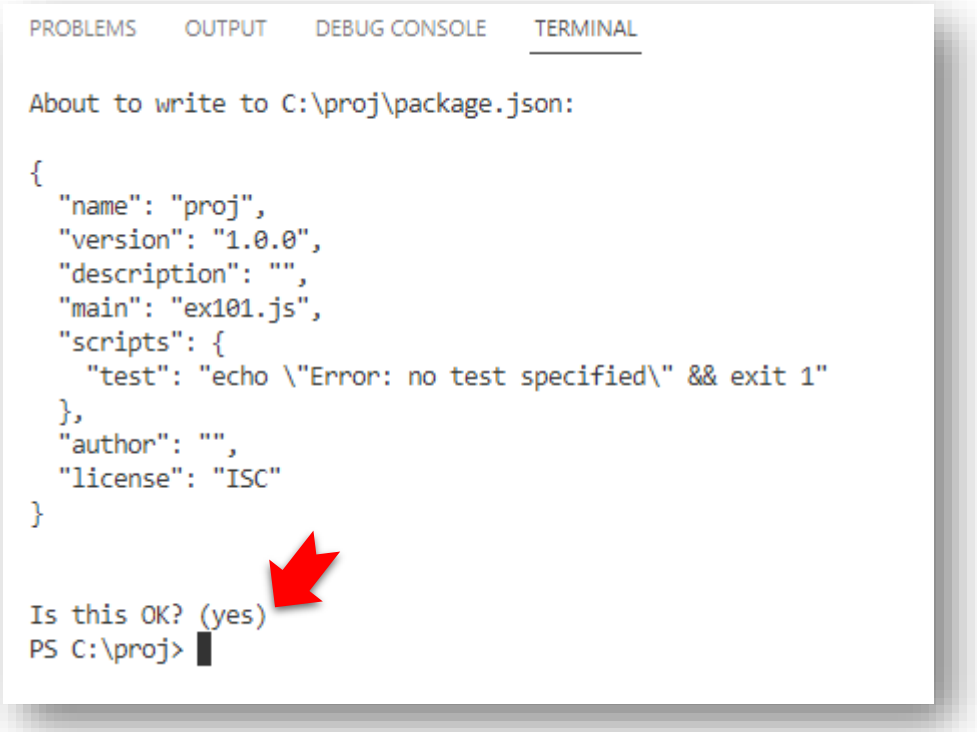
- Now, the Terminal Windows has meaningful names:



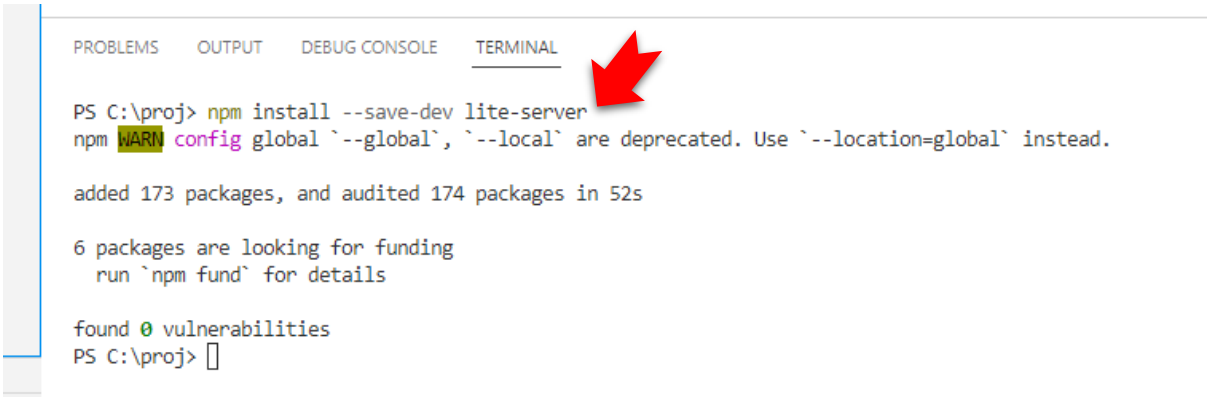
- Under the “Server” terminal, type the command **npm init**



- Just press **Enter** to use all default values

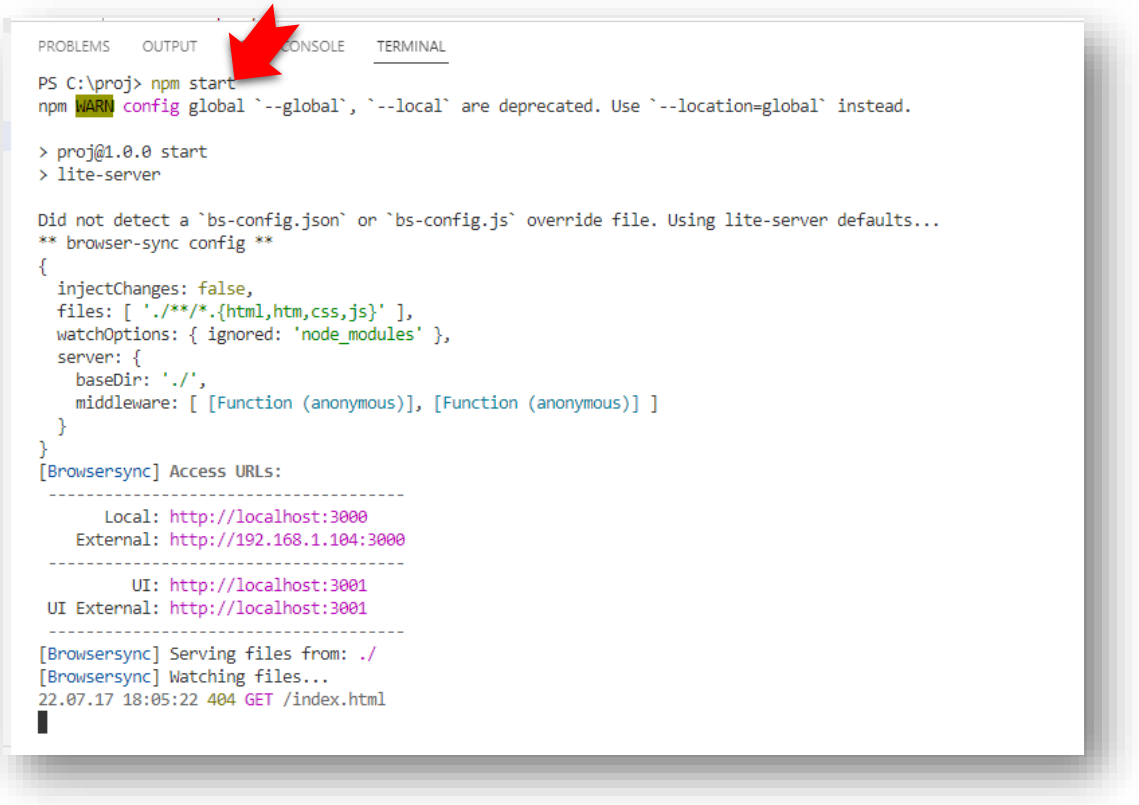


- Under the **Server** terminal, type **npm install --save-dev lite-server**

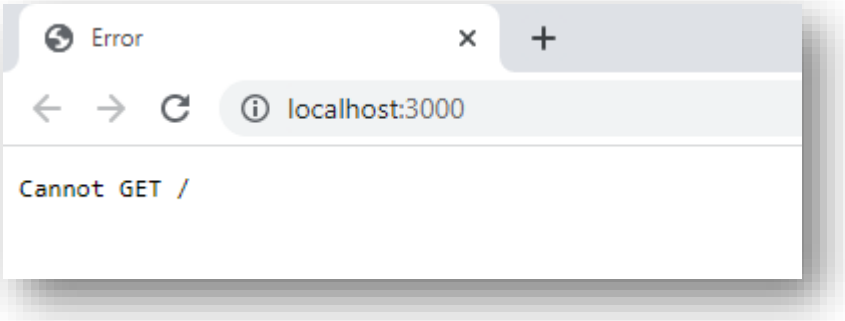


- Under generated file **package.json**, add the following:

- Save all files, and run the command **npm start** under **Server** terminal,

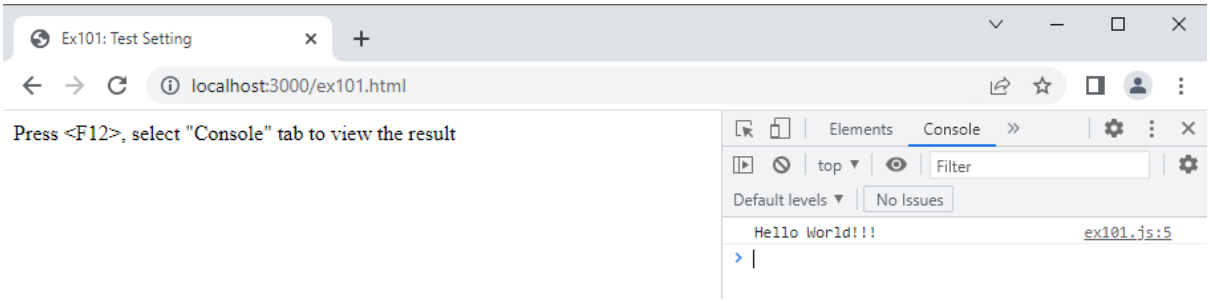


- The server is running and lunch the browser as shown below:



Notes: This setup guide assumes the default browser is Google Chrome. If your default browser is others, the developer pane might not use F12 key.

- Don't worry about the error at the moment. Just change the URL to: http://localhost:3000/ex101.html
- From browser address bar, press enter key, and F12:



- Under **Server** terminal, press **Ctrl-C** to stop the server

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

22.07.17 18:13:54 304 GET /ex101.html
22.07.17 18:13:54 304 GET /ex101.js
Terminate batch job (Y/N)? y
PS C:\proj>
```

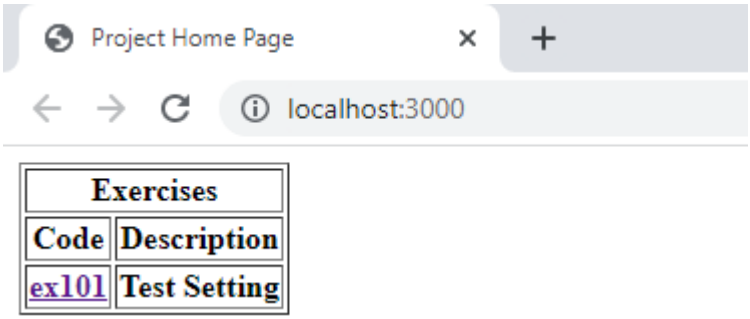
- Add a new index.html file

```
index.html > html
1   <!DOCTYPE html>
2   <html lang="en">
3   <head>
4       <meta charset="UTF-8">
5       <meta http-equiv="X-UA-Compatible" content="IE=edge">
6       <meta name="viewport" content="width=device-width, initial-scale=1.0">
7       <title>Project Home Page</title>
8   </head>
9   <body>
10      <table border="1">
11          <tr><th colspan="2">Exercises</th></tr>
12          <tr><th>Code</th><th>Description</th></tr>
13          <tr><th><a href="ex101.html">ex101</a></th><th>Test Setting</th></tr>
14      </table>
15  </body>
16  </html>
```

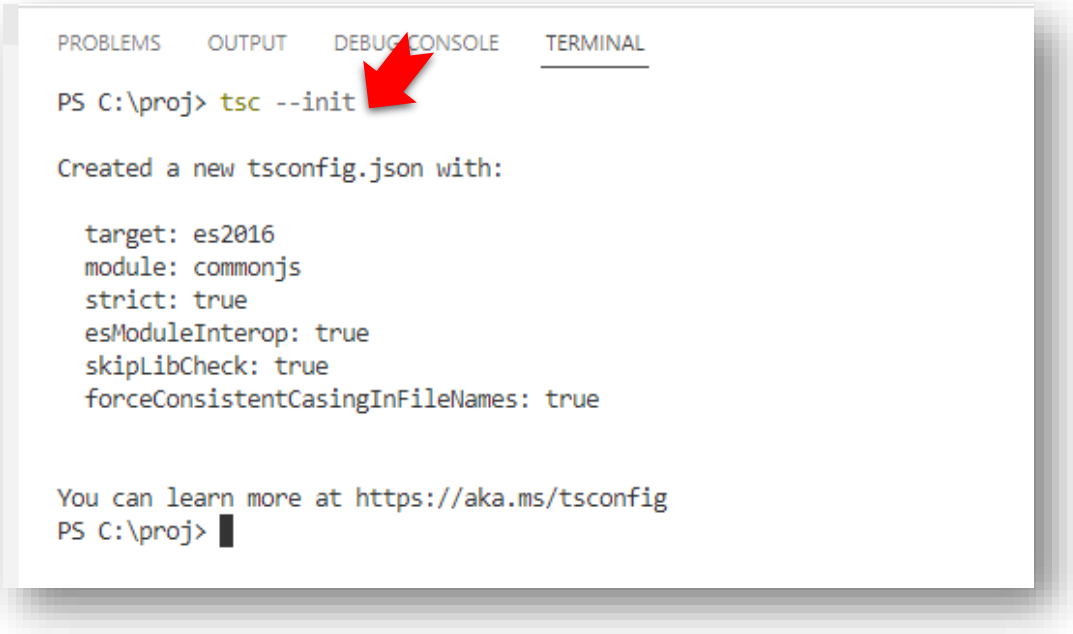
- Under package.json, change the main attribute:

```
{} package.json > main
1   {
2     "name": "proj",
3     "version": "1.0.0",
4     "description": "",
5     "main": "index.html",
        ▷ Debug
6     "scripts": {
7       "test": "echo \"Error: no test specified\" && exit 1",
8       "start":"lite-server"
9     },
10    "author": "",
11    "license": "ISC",
12    "devDependencies": {
13      "lite-server": "^2.6.1"
14    }
15  }
16
```

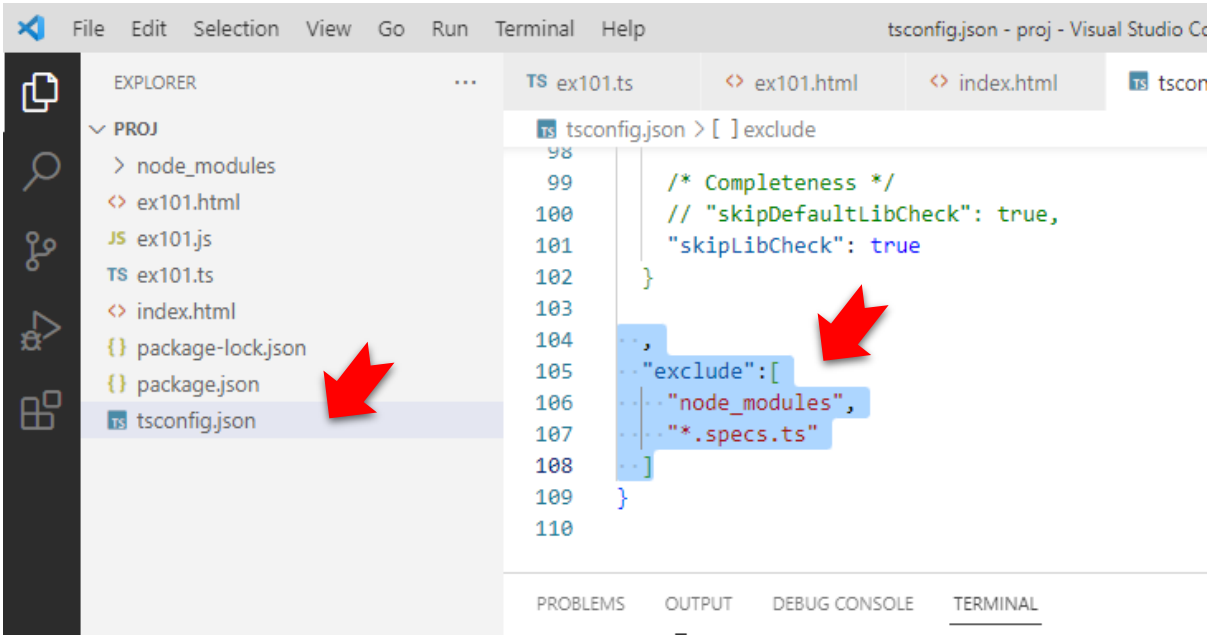
- Save all files
- Under **Server** terminal, type **npm start** to run the server again. Now the browser launch with the following content



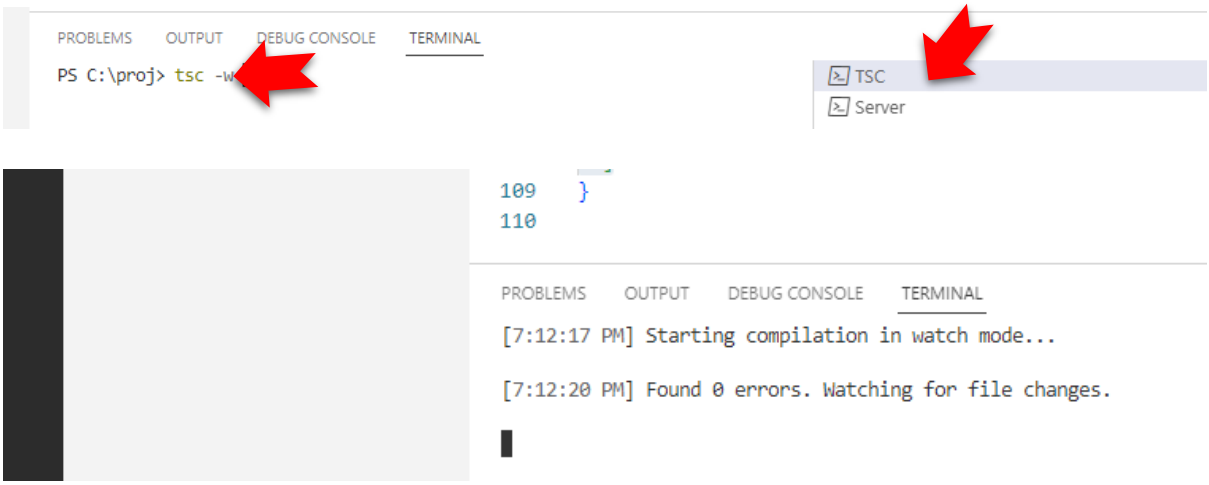
- To make the TypeScript compiler auto detect changes to the TypeScript files, go to **TSC** terminal window, and type command **tsc –init**



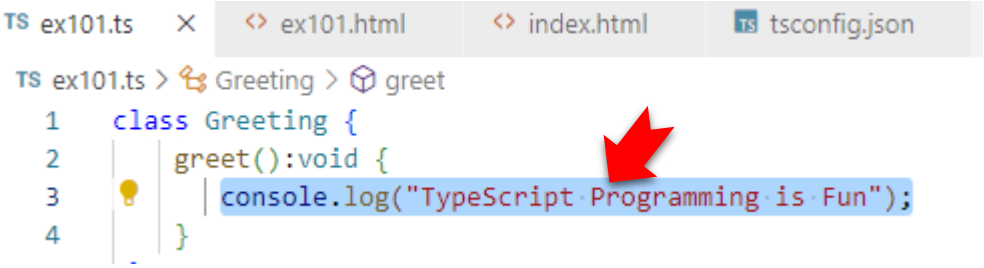
- You will realize that **tsconfig.json** file is generated. Edit this newly generated JSON file by adding the following to the end of the file:



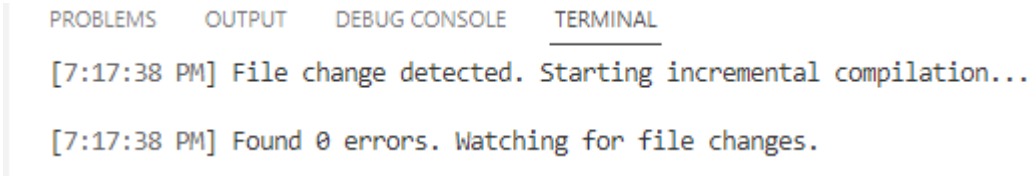
- Save all files, and type the command **tsc -w** under TSC terminal window:



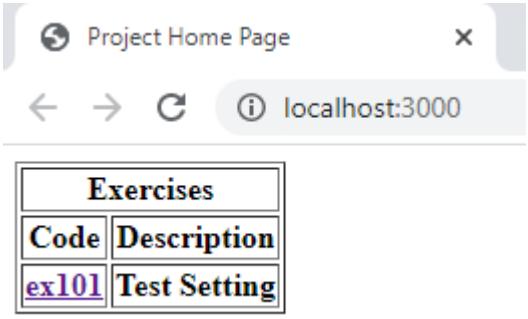
- Now, the TypeScript compiler is now is observing any TypeScript source file change, and it will automatically recompile them. To prove it works, edit the ex101.ts file:



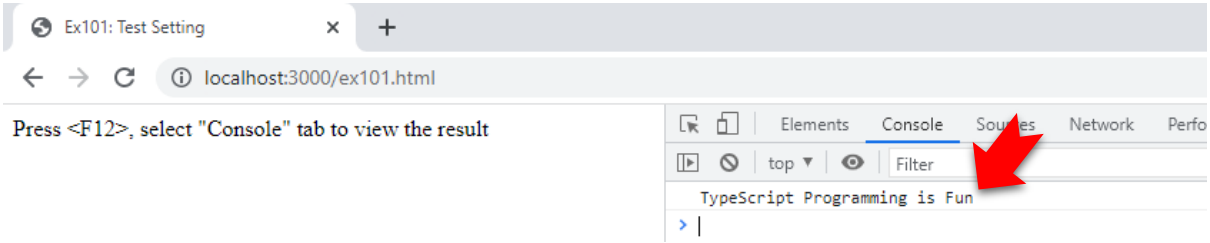
- Save it and observe the messages in **TSC** terminal window. Fix any problem until you get the following messages:



- Now, go back to the home page, and click **ex101** hyperlink.



- Press F12 to see the message generated in console tab:



- If you can get the output as shown, the installation and set-up is completed successfully.