1. **Create and Configure Folder:**

   - Create a folder and name it, say "pen."

   - Right-click the folder, choose "Open with VSCode."

2. **Initialize TypeScript Configuration:**

   - Use the command **tsc --init** in the terminal. This generates a **tsconfig.json** file containing rules for converting TypeScript to JavaScript.

3. **Writing and Transpiling TypeScript:**

   - Create a file named **index.ts** and write TypeScript code in it.

   - In the terminal, use the command **tsc**. This will convert your TypeScript code to JavaScript since browsers and servers understand JS, making it convenient for TypeScript developers.

4. **Transpile on Changes:**

   - Whenever changes are made in a **.ts** file, use the **tsc** command in the terminal to convert those changes to **.js**.

   - After that run this command node index.js => to run your code file

VS Code Settings for Code Formatting:

1. **Install Prettier Extension:**

   - Click on the "Extensions" icon (box-like) on the left side.

   - Search and install the "Prettier" extension.

2. **Configure Default Formatter:**

   - Type **Ctrl+Shift+P**, then search for "Format Default."

   ⇨ Configure the default formatter.

3. **Set Formatting on Save or Paste:**

   - Click the Settings icon at the bottom left.

   - Go to Settings and search for "Formatting."

   - Enable formatting on save or paste, for instance, "Format on Save" or "Format on Paste."

4. **Auto-Save Configuration:**

   - Search for "Save" in the settings search bar.

   - From the dropdown, set the auto-save preferences based on your needs (on or off).

Variables:

- **Constants (const):**

```
const pi = 3.14;
```

- Use **const** to declare a variable that remains constant throughout its lifecycle.

- **Mutable/Changeable Variables (let):**

```
let sum = 10;
```

- Use **let** for variables that might change their value over time.

- **Variable Declaration, Initialization, and Both:**

```
let a; // Variable Declaration

a = 10; // Variable Initialization

let a = 10; // Variable Declaration and Initialization at once
```

Git bash installation

https://git-scm.com/downloads

download => **64-bit Git for Windows Setup**. **For windows user =>** download => click on downloaded software => yes => next…. => finish

GitHub Account Creation:

https://github.com/

click on sign up
https://github.com/signup?ref_cta=Sign+up&ref_loc=header+logged+out&ref_page=%2F&source=header-home

fill your information's etc..

Open terminal

```
git config --global user.name "Your Name"

git config --global user.email "youremail@example.com"
```

Execute git config --list to check your current username and email.

Install these extensions in your VS code for better coding experience

Bracket Pair Colorizer

Better Comments

Snippets

CSS Peak

Prettier

Relative Path

GitLens

Material Theme

https://blog.bitsrc.io/top-10-visual-studio-code-extensions-for-web-developers-5bd6a76bdf5f