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# Demo: Installation of Software

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The demos are made with Mac or Windows. For Linux users, mostly you can follow the same instructions for Mac. If these are not applicable, you will need to explore a bit by yourself.

## Integrated Development Environment (IDE)

We recommend VS Code as IDE for web application development for Windows, Mac, and Linux. Link for download: <https://code.visualstudio.com/download>

You are free to use other IDE, but please note that all course materials will be based on VS Code. You will need to explore a bit by yourself.

## .NET 8.0 SDK

We need .NET 8.0 SDK for VS Code. Link for download: <https://dotnet.microsoft.com/en-us/download>

You can refer to the following pages (only) if you need more detailed information:

<https://learn.microsoft.com/en-us/dotnet/core/install/macos>

<https://learn.microsoft.com/en-us/dotnet/core/install/windows>

<https://learn.microsoft.com/en-us/dotnet/core/install/linux-ubuntu>

<https://dotnet.microsoft.com/en-us/download/dotnet/8.0>

## Database browsing

We use DB Browser for SQLite for database browsing in Windows, Mac, and Linux. Choose the latest version.

<https://sqlitebrowser.org/dl/>

Select "DB Browser for SQLite, Standard installer x64" when downloading to Windows, assuming that you are using a 64-bit machine.

## Node for front-end development, e.g., Angular/React

Download the latest recommended LTS (long term support) version of Node. The course uses v20.16.0 during the course development. Follow the instructions in the link:

<https://nodejs.org/en/download/>

There are multiple ways of installation. fnm is recommended for Windows; nvm is recommended for Mac and Linux.

I encountered error (26-07-2024) when I tried to run the command for Windows:

```
fnm use --install-if-missing 20
```

If this also happens to you, run the below code before you run the “fnm use” code

```
fnm env --use-on-cd | Out-String | Invoke-Expression
```

Append this line of code to the end of your PowerShell profile in Windows so that you don't need to run this every time.

### Open the PowerShell Profile in Windows

- Normally, the PowerShell profile is under the below path, where [Username] is your user name: C:\Users\[Username]\Documents\WindowsPowerShell
- If the profile file does not exist, create it with notepad, or by running:

```
if (!(Test-Path -Path $PROFILE)) {  
    New-Item -Type File -Path $PROFILE -Force  
}
```

- Open the PowerShell profile file in a text editor, such as Notepad:

```
notepad $PROFILE
```

### Optional: reading

Both nvm and fnm are node version managers. Read more:

<https://github.com/Schniz/fnm>

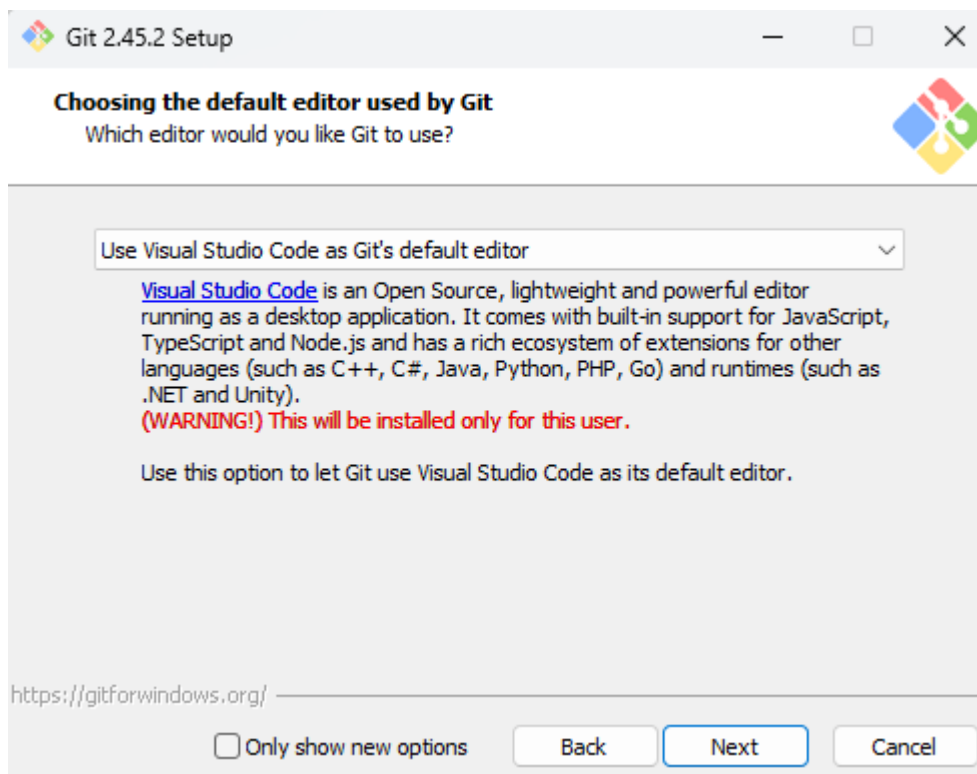
<https://github.com/nvm-sh/nvm>

### Optional: Using bash on Windows

You can use bash command on Windows. With bash on windows, you can follow many We recommend using git bash. Download the latest version here:

<https://gitforwindows.org/>

We recommend using VS Code as Git's default editor:



Install git to a location, remember the git path where you installed it. You can use all other options you can use the default options and always click next.

## Adding gitbash to PowerShell in Windows

- Add the following line to the profile file to create an alias named gitbash:

```
Set-Alias gitbash 'path to your git bash exe'
```

- The path is normally as below, or a path set by yourself

```
'C:\Program Files\Git\bin\bash.exe'
```

## Open the PowerShell Profile in Windows

- Normally, the PowerShell profile is under the below path, where [Username] is your user name: C:\Users\[UserName]\Documents\WindowsPowerShell
- If the profile file does not exist, create it with notepad, or by running:

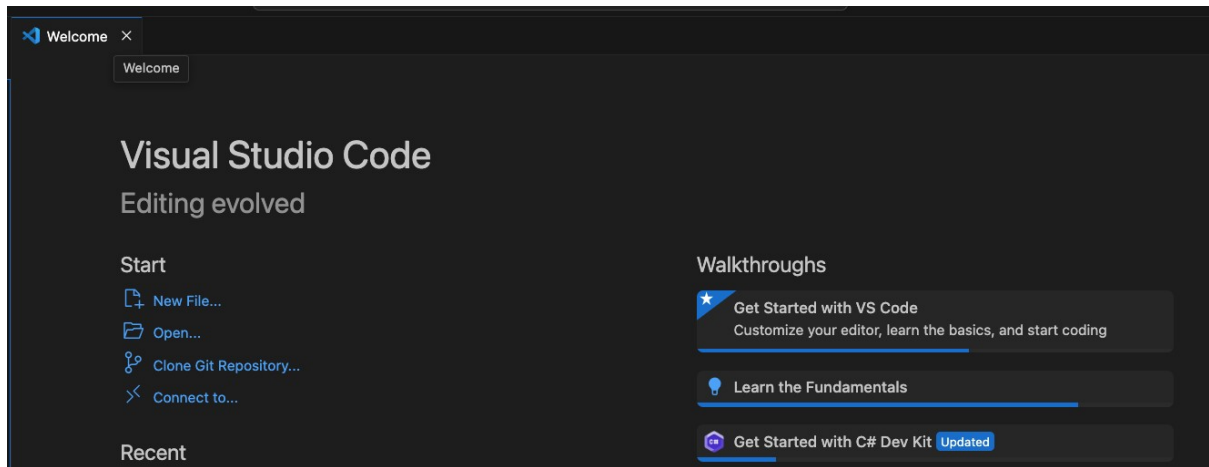
```
if (!(Test-Path -Path $PROFILE)) {  
    New-Item -Type File -Path $PROFILE -Force  
}
```

- Open the PowerShell profile file in a text editor, such as Notepad:

```
notepad $PROFILE
```

## Open VS Code

Open VS Code, you will see the following welcome page.



## Installation of VS Code Extensions

You may be popped up for installing some extensions. We can install C# Dev Kit.

You can also find it by clicking the highlighted (orange rectangle) icon on the left.

