DOWNLOADING AND INSTALLING WINDOWS 11

1. I visited the Microsoft website using the link https://www.microsoft.com/software-download/windows11.
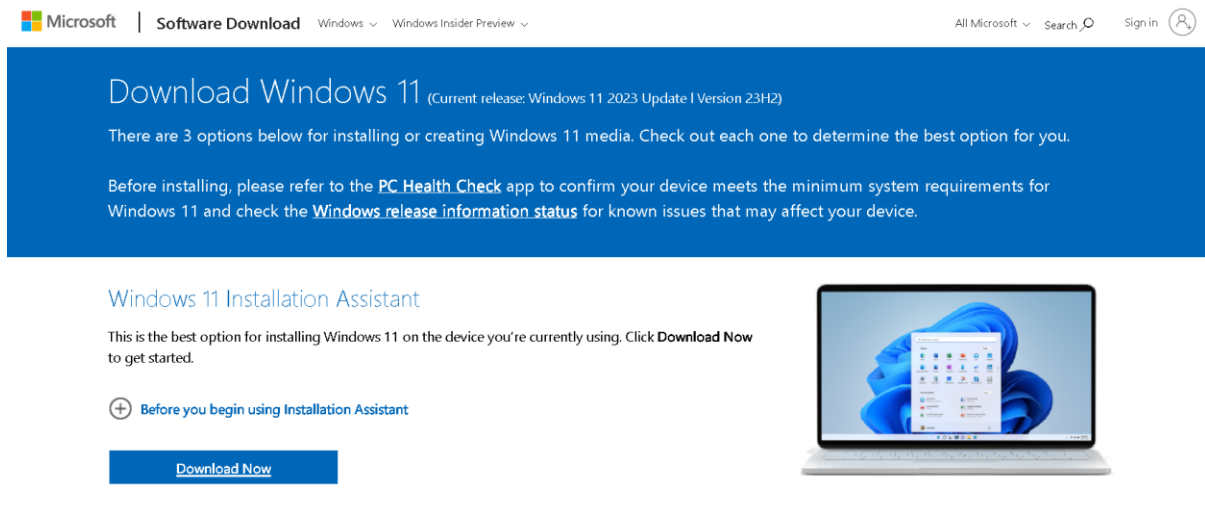
2. I Scrolled down to the "Create Windows 11 installation media" section and Click on the "Download now" button to download the Windows 11 installation tool.
3. After the downloaded is finished, I open the file to run the installation wizard.
4. I chose the option to create installation media for another PC and select the USB flash drive option.
5. Insert a USB drive with at least 16GB of storage capacity into your computer. Note that everything in the USB drive will be removed.
6. I selectd the USB flash drive I wanted to use and click "Next" to begin the download and creation of the Windows 11 installation media.
7. After the process is complete, I safely ejected the USB flash drive from the computer.
8. Insert the USB flash drive into my PC where I want to install Windows 11.
9. I then boot up my PC and follow the on-screen instructions to install Windows 11 using the installation media.
10. Completed the installation process by entering the product key, setting up your preferences, and creating a user account.
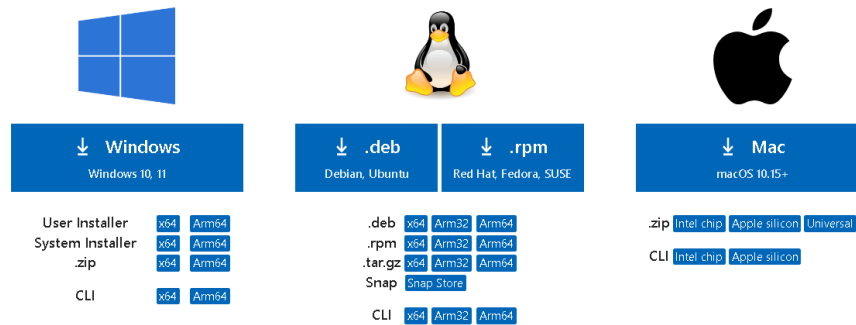
    That is how to install windows 11 operating system in your machine.

INSTALLING VISUAL STUDIO CODE(VS Code)

1. First open my browser which is Microsoft Edge
2. Navigate to the official Visual Studio Code website: https://code.visualstudio.com.
3. On the homepage, you will see a button that says "Download for Windows." Click this button. The download started automatically.

Visual Studio Code   Docs   Updates   Blog   API   Extensions   FAQ   Learn   Search Docs   ↓ Download

Version 1.90 is now available! Read about the new features and fixes from May.

Download Visual Studio Code

Free and built on open source. Integrated Git, debugging and extensions.

↓ Windows	↓ .deb	↓ .rpm	↓ Mac
Windows 10, 11	Debian, Ubuntu	Red Hat, Fedora, SUSE	macOS 10.15+

Windows		Linux		Mac	
User Installer	x64 Arm64	.deb	x64 Arm32 Arm64	.zip	Intel chip Apple silicon Universal
System Installer	x64 Arm64	.rpm	x64 Arm32 Arm64	CLI	Intel chip Apple silicon
.zip	x64 Arm64	.tar.gz	x64 Arm32 Arm64		
		Snap	Snap Store		
CLI	x64 Arm64	CLI	x64 Arm32 Arm64		

4. Locate the Installer File. Mine saves on the downloads folder.
5. Double-click the installer file to start the installation process.
6. After being prompted click yes and the Visual Studio Code Setup Wizard will open. Click "Next" to continue.
7. Read through the License Agreement. If you agree with the terms, select "I accept the agreement" and click "Next." Honestly I just accepted the agreement without reading.
8. Choose the destination folder where you want Visual Studio Code to be installed. The default location is usually fine. Click "Next."
9. You will be given options for additional tasks. These include Creating a desktop icon, Adding "Open with Code" actions to the context menu (useful for quickly opening files or folders with VS Code), Adding to the PATH (makes it easier to open VS Code from the command line). Select the tasks you want and click "Next."
10. Review your settings. If everything looks good, click "Install" to begin the installation.
11. Once the installation is complete, you will see a final screen with an option to launch Visual Studio Code immediately. Ensure the box is checked if you want to open VS Code right away, then click "Finish."

SETTING UP GIT

1. Navigate to the official Git website: https://git-scm.com and On the homepage, click on the "Download for Windows" button. This will take you to the downloads page and the download should start automatically.
2. After locating it from the downloads folder Double-click the installer file to start the installation process, the user will prompt just clock yes.
3. The Git Setup Wizard will open. Click "Next" to continue.
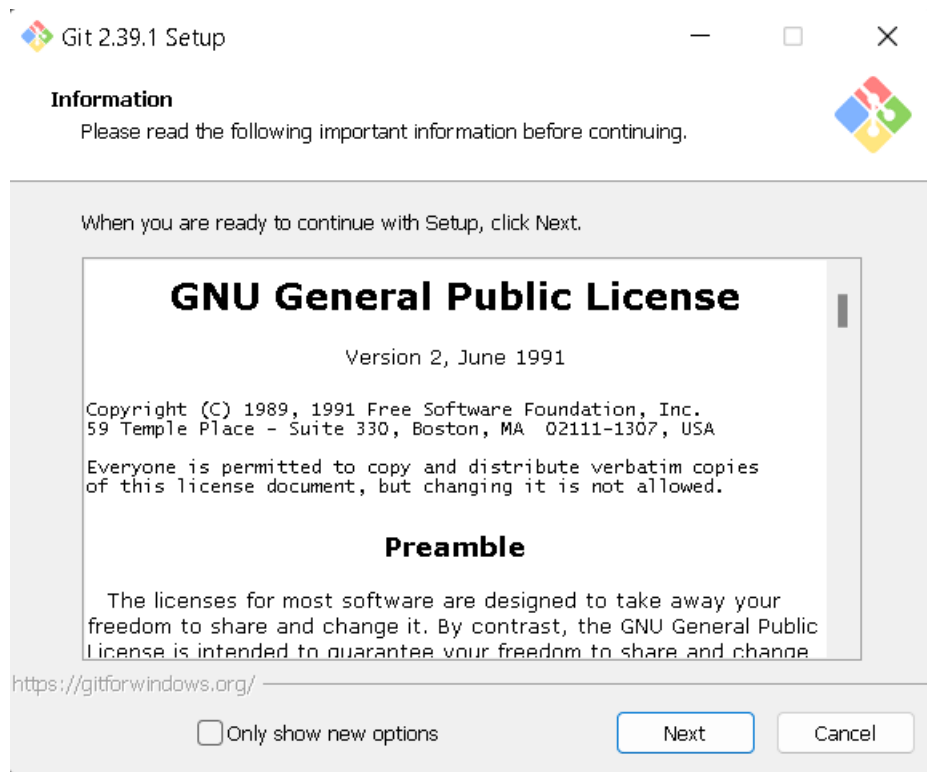
4. Choose the destination folder where you want Git to be installed. The default location is usually fine. Click "Next.", Choose the components you want to install. The default options are generally suitable for most users. Click "Next.".
5. The installer will copy the necessary files and set up Git on your computer. This may take a few minutes.
6. Once the installation is complete, you will see a final screen. Ensure the box is checked if you want to launch Git Bash immediately, then click "Finish."

Creating a github account

Go to https://github.com, Click on the "Sign up" button, usually found at the top-right corner of the homepage, Fill in the required fields: Username, your email and create your password. Follow the instructions to verify you are not a robot. Select a plan. You can start with the free plan and upgrade later if needed. Check your email for a verification message from GitHub, Click the verification link in the email to confirm your address. Optionally, you can fill in additional profile information such as a bio, profile picture, and organization. You now have a GitHub account! You can start creating repositories, collaborating on projects, and exploring other features of GitHub.

Installing Python on my Machine

1. Open browser and Navigate to the official Python website: https://www.python.org.
2. Click on the "Downloads" link in the top navigation bar to see something like this.

3. Under the "Download for Windows" section, click the "Download Python 3.12.4" button. This will download the latest version of Python.
4. Once the download is complete, navigate to the location where you saved the installer file. My downloads always lands on the downloads folder.
5. Double-click the installer file to start the installation process, The Python Setup Wizard will open.
6. Modify your prefared installation options and click install now.
7. The installer will copy the necessary files and set up Python on your computer. This may take a few minutes.
8. Once the installation is complete, you will see a screen that says "Setup was successful." Click "Close."

Downloading and installing MySQL database

1. Visted https://dev.mysql.com/downloads/windows/installer/5.7.html to download MySQL
2. MySQL - Run the downloaded MySQL installer.
3. Started MySQL Server.
4. Verified MySQL Installation on Terminal.
5. Configure your preferences, set your MySQL password on the wizard
6. Then install MySQL on your machine.

Challenges encountered and how to deal with them

Ensuring that the correct versions of all the softwares is compatible with your operating system can be challenging. Luckly my machine is compitable with all of them.

Errors during installation can occur due to corrupted installer files or conflicts with existing software.

Forgetting to add downloaded softwares to the system PATH can prevent them from being recognized in the command line, causing confusion and additional troubleshooting. Just make sure to always add paths if the installer doesn't do that for you.