

ASSIGNMENT 1 – Set up development environment

For

Loice P Dube

1. Setup guide for Windows 11

Windows 11 is the latest version of the windows operating system, developed by Microsoft. It was released to the public on 21/10/2021. Windows 11 was built upon the foundation laid by Windows 10, its predecessor.

How to install windows 11

There are 3 ways for installing windows 11, which are as follows:

1. Windows 11 installation assistant.

This option is for those who wish to upgrade a windows 10 pc to windows 11. Before downloading the operating system, ensure that your pc meets the minimum requirements for windows 11. Refer to the PC Health check app to confirm.

2. Create Windows 11 installation media.

If you have a windows 10 device that qualifies for an upgrade via windows update or have a licence to install, follow the prompts to begin the upgrade process.

Make sure you have:

- An internet connection (internet service provider fees may apply).
- Sufficient data storage available on the computer, USB, or external drive you are downloading the .iso file to.
- A blank DVD disc with at least 8GB (and DVD burner) to create a bootable disc. We recommend using a blank USB or blank DVD, because any content on it will be deleted during installation.
- If you receive a "disc image file is too large" message while attempting to burn a DVD bootable disc from an ISO file, consider using a higher capacity Dual Layer DVD.

Ensure the PC you want to install Windows 11:

- **Has a 64-bit CPU:** Windows 11 can only run on 64-bit CPUs. To see if your PC has one, go to Settings > System > About, or search "System Information" in Windows and look under "System Type."
 - Windows 11 Media Creation Tool creates installation media only for x64 processors. For ARM-based PCs, you should wait until you are notified through Windows Update that the upgrade is ready for your PC.
- **Meets system requirements:** Not all devices running Windows 10 are eligible to receive a Windows 11 upgrade. See the Note below with the link to: Windows 11 device specifications for upgrade requirements and supported features. Certain features require for additional hardware.
 - **WARNING:** Installing Windows 11 media on a PC that does not meet the Windows 11 minimum system requirements is not recommended and may result in compatibility issues. If you proceed with installing Windows 11 on a PC that does not meet the requirements, that PC will no longer be supported and won't be entitled to receive updates. Damages to the PC due to lack of compatibility aren't covered under the manufacturer warranty.
- **Matches your current language:** You'll need to choose the same language when you install Windows 11. To see what language you're currently using, go to **Time & language** in PC settings or **Region** in the Control Panel.

3. Downloading Windows 11 disk image ISO for *64 device

This option is for users that want to create a bootable installation media (USB flash drive, DVD) or to create a virtual machine (ISO File) to install Windows 11.

Make sure you have the following;

- An internet connection (internet service provider fees may apply).
- Sufficient data storage available on the computer, USB, or external drive you are downloading the .iso file to.
- A blank DVD disc with at least 8GB (and DVD burner) to create a bootable disc. We recommend using a blank USB or blank DVD, because any content on it will be deleted during installation.
- If you receive a "disc image file is too large" message while attempting to burn a DVD bootable disc from an ISO file, consider using a higher capacity Dual Layer DVD.

Ensure the PC you want to install Windows 11:

- **Has a 64-bit CPU:** Windows 11 can only run on 64-bit CPUs. To see if your PC has one, go to **Settings > System > About**, or search "System Information" in Windows and look under "System Type."
- **Meets system requirements:**
Not all devices running Windows 10 are eligible to receive a Windows 11 upgrade. See the Note below for details.
 - **WARNING:** Installing Windows 11 media on a PC that does not meet the Windows 11 minimum system requirements is not recommended and may result in compatibility issues. If you proceed with installing Windows 11 on a PC that does not meet the requirements, that PC will no longer be supported and won't be entitled to receive updates. Damages to the PC due to lack of compatibility aren't covered under the manufacturer warranty.

source: www.microsoft.com/software/download/windows11

Installation.

Insert the bootable USB drive into the Pc.

Restart your computer and enter the BIOS/UEFI settings.

Change the boot order so that the USB drive is the first boot device.

Save the changes and exit

Your Pc will now boot from the USB drive. Follow the on-screen instructions to install Windows 11.

During installation follow the prompts that follow.

Select installation type.

Follow the remaining prompts to complete the installation.

Setup the Windows 11. You may need to install drivers for your hardware components. Configure network settings .

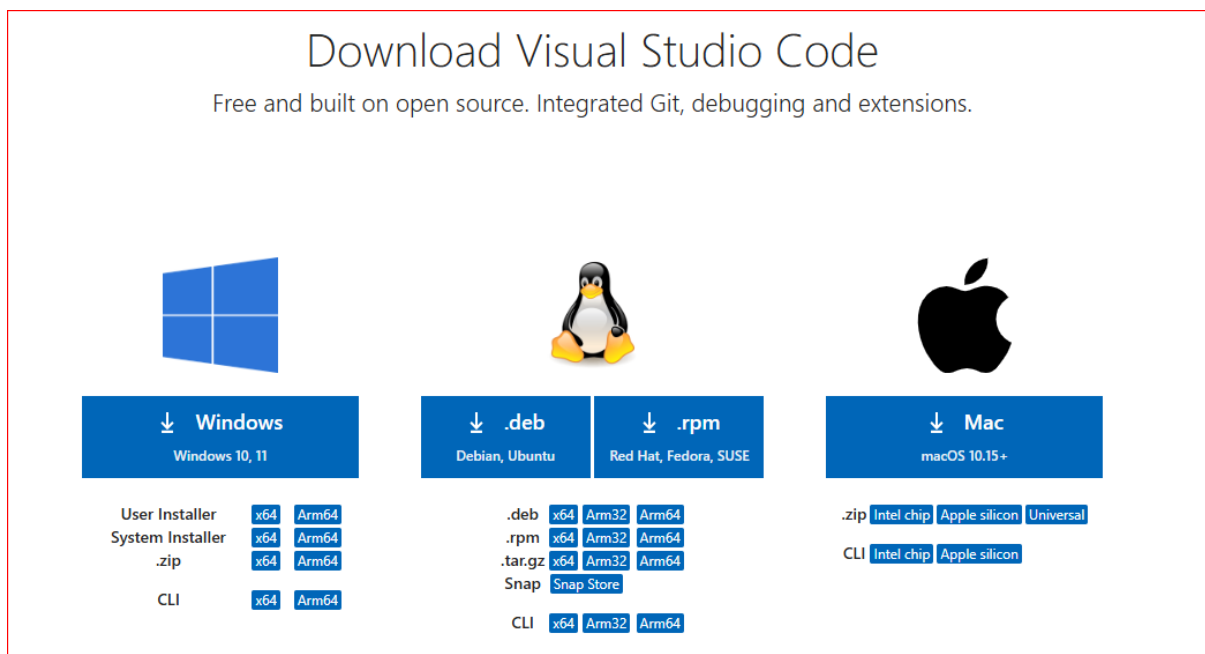
Your windows 11 is ready to use.

2. Visual Studio code

Visual studio code is a free open-source editor developed by Microsoft, which runs on a desktop. It is available for Windows, MacOS and Linux. It comes with built in support for JavaScript, Nodejs, TypeScript etc. V S Code has a rich ecosystem of extensions for other languages and runtimes e.g. C++, Python, Go, PHP.

Visual studio code is lightweight therefore it is a small download.

To download V S code, go to <https://code.visualstudio.com/download> , follow the platform specific guide on the screen. Download for your operating system:



source : code.visualstudio.com/download

Once the download is complete, run the installer file.

Follow the on-screen instructions to install V S code on your computer.

Downloading directly from the official website ensures you get the latest and safest version available.

3. Setting up and installing Git for Windows

Go to the official Git website [https://git-scm/download](https://git-scm/download/win) /win.

Download the latest version for Windows

Run the downloaded installer.

Follow the steps in the installer, leaving all settings to their defaults unless you have a specific reason to change them.

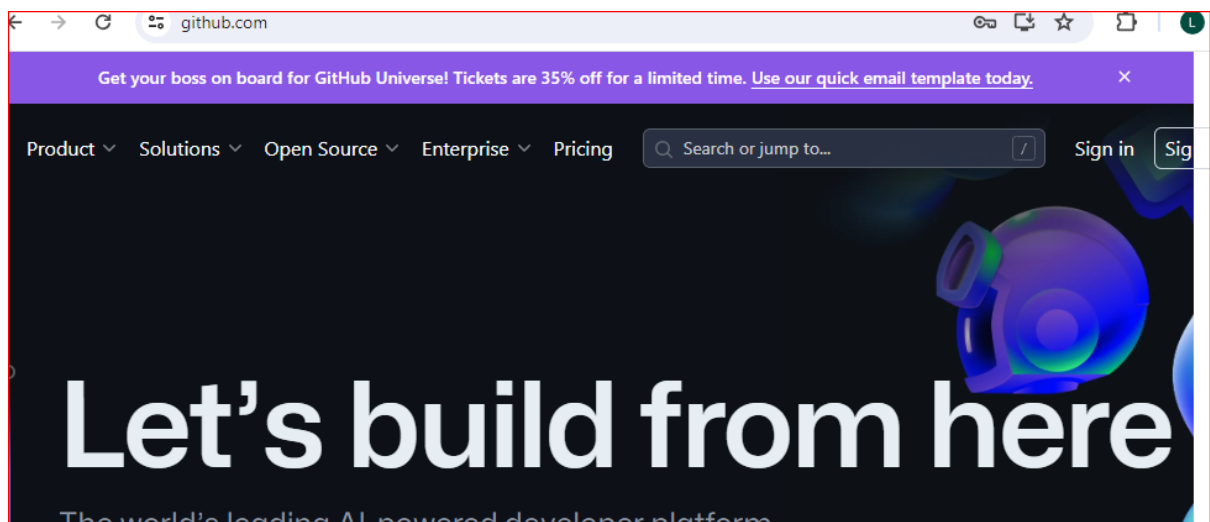
Once installation is complete, verify by opening Command Prompt (cmd)

Type `git --version`, press enter.

Confirm the version of Git you installed.

Once Git is installed and configured, you can start using it to manage your code repositories locally and remotely.

Create a GitHub account, go to GitHub's website and sign up for an account.



source github.com

Create a repository:

Once logged in, click on the "+" icon in the top right corner and select "New repository".

Give your repository a name and description.

Choose whether it should be public or private.


Click on "create repository"

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Required fields are marked with an asterisk ().*

Owner *

 Magiyaloice ▾

Repository name *


assignment 1

✔ Your new repository will be created as assignment-1.
The repository name can only contain ASCII letters, digits, and the characters ., -, and _.


Great repository names are short and memorable. Need inspiration? How about [didactic-spork](#) ?

Description (optional)

set up development environment

☒  **Public**

Anyone on the internet can see this repository. You choose who can commit.

☐  **Private**

You choose who can see and commit to this repository.

Initialize this repository with:

☒ **Add a README file**

This is where you can write a long description for your project. [Learn more about READMEs.](#)

Add .gitignore

.gitignore template: Python ▾

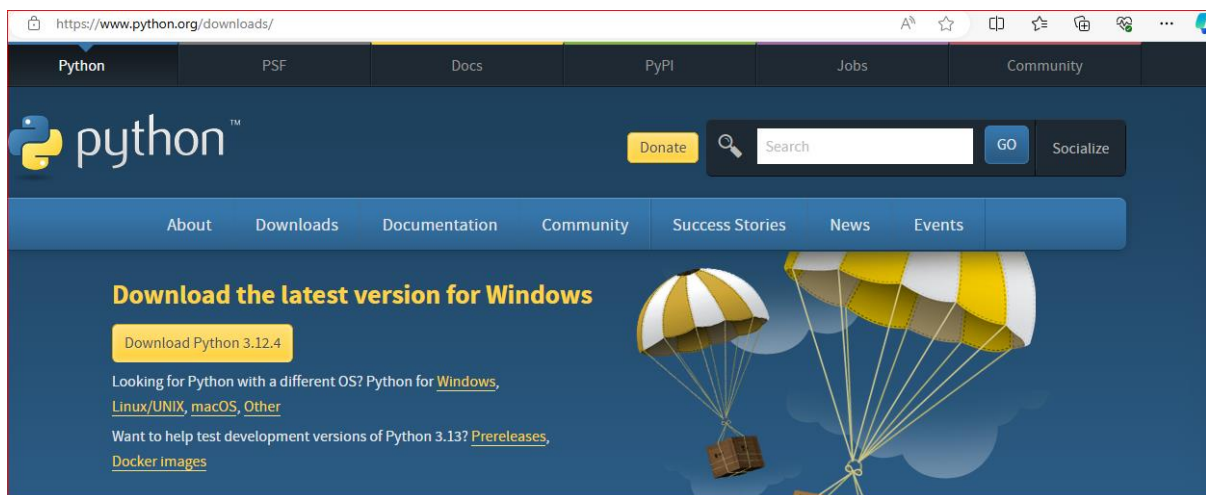
4. Install Python

Python is an integrated object-oriented, high-level programming language that can be used to create applications for different uses.

Download Python from the internet. Go to <http://www.python.org>.

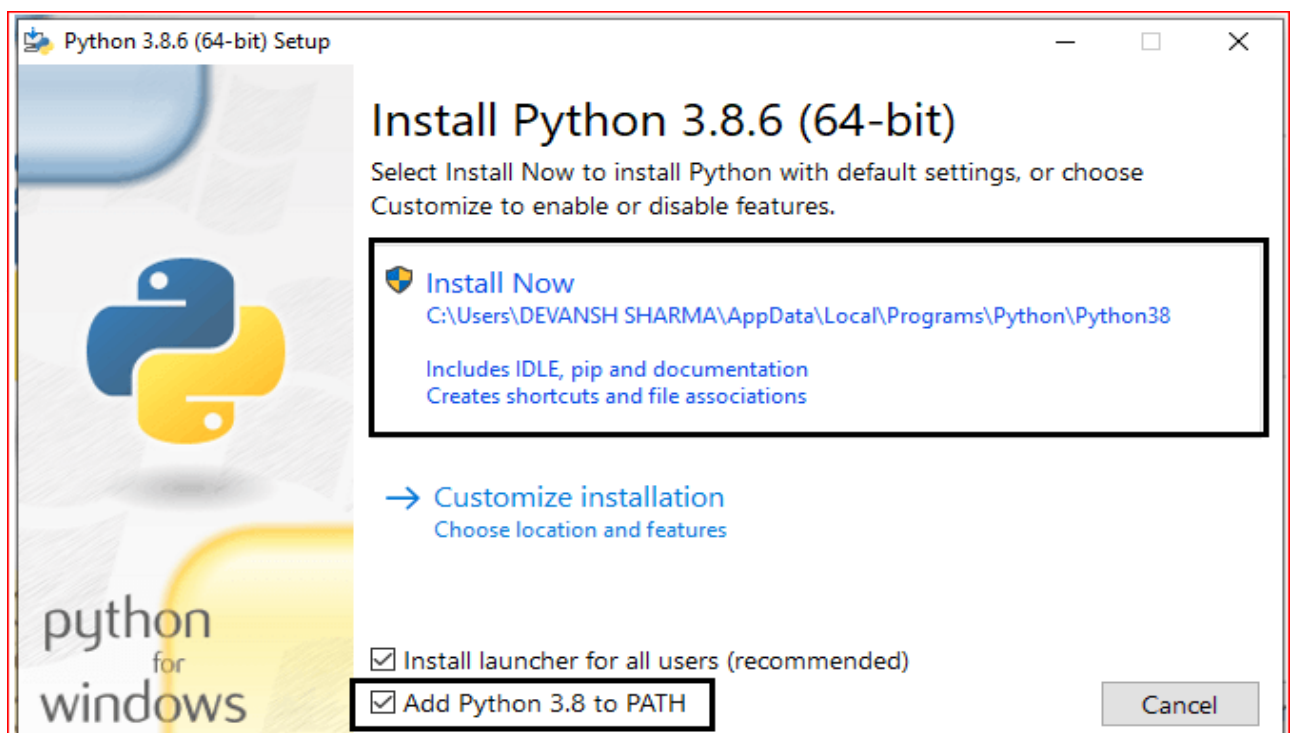
Select python download for your Operating System. In this document i will show how to install Python on Windows Operating system.

Download the latest release of python:



Source: python.org

Once the download is complete double click the installer to run it.



Check the box “Add python to PATH”

Click install now to begin the installation.

Once installation is complete navigate into the directory specified.

To verify the installed Python version, open command prompt (cmd) and type
`python --version`.

5. Install package managers

Installing pip (for python packages).

Pip is usually included automatically with Python installations from the official website
<https://www.python.org>

6.Download and install MySQL

Go to the official website <https://dev.mysql.com/downloads/mysql/>

Choose the version suitable for your operating system. I chose for Windows operating system.

MySQL Community Server 8.4.0 LTS

Select Version:
8.4.0 LTS

Select Operating System:
Microsoft Windows

Windows (x86, 64-bit), MSI Installer (mysql-8.4.0-winx64.msi)	8.4.0	128.4M	Download MD5: 53c9781e14f106f4551d4d8c06654bc3 Signature
Windows (x86, 64-bit), ZIP Archive (mysql-8.4.0-winx64.zip)	8.4.0	247.0M	Download MD5: 23fa293db80b5d49f9e97d34c2037a82 Signature
Windows (x86, 64-bit), ZIP Archive Debug Binaries & Test Suite (mysql-8.4.0-winx64-debug-test.zip)	8.4.0	666.4M	Download MD5: a2c13b9420645b80d818348a9fadad0a Signature

Click on the download button next to the version you want to install.

Once the download is complete open the installer. I used 7zip to extract the zip file.

Begin the installation process. During installation you may be prompted to set a root password for MySQL. Once installation is complete, click ("Finish").

Extensions and plugins for Visual Studio Code.

V S Code has a rich ecosystem of extensions that enhance its functionality across various programming languages.

Examples:

Python official extension by Microsoft for Python development.

Html CSS support for HTML documents

Terminal – an integrated terminal within V S Code for command-line interactions.

Themes for VS Code

Vue.js - for syntax highlighting, code snippets, and more for Vue.js development

Node.js extension pack is a collection of extensions for node.js development.