

# ASSIGNMENT: SETTING UP YOUR DEVELOPER ENVIRONMENT

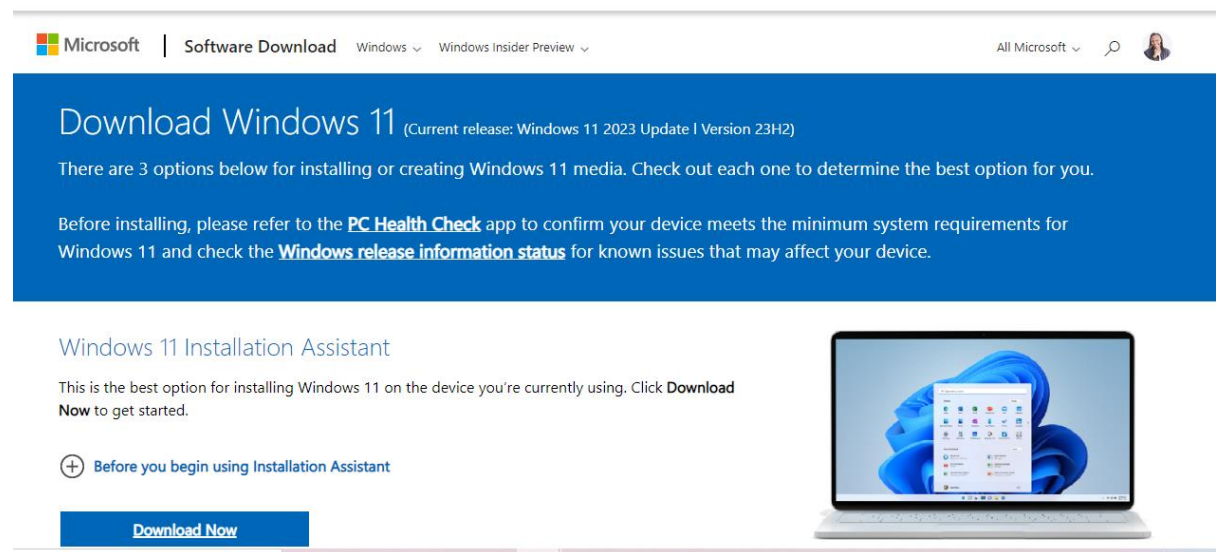
NAME: RAHAB WAIRIMU KINYANJUI

## QUESTION ONE

### 1. TO DOWNLOAD AND INSTALL AN OPERATING SYSTEM (windows 11)

- a) You can use the following link to download the windows 11.

<https://www.microsoft.com/software-download/windows11> .



- Click on: Download Now: for Windows 11 Disk Image (ISO) for x64 devices

### Download Windows 11 Disk Image (ISO) for x64 devices

This option is for users that want to create a bootable installation media (USB flash drive, DVD) or create a virtual machine (.ISO file) to install Windows 11. This download is a multi-edition ISO which uses your product key to unlock the correct edition.

Select Download

⊕ Before you begin downloading an ISO

Download Now

- This option is for users who would like to use a bootable installation media (USB flash drive, DVD) or create a virtual machine (.ISO file) to install Windows 11.
- Then in the dropdown select download, select windows 11(multiedition ISO for x64 devices) as shown below

### Download Windows 11 Disk Image (ISO) for x64 devices

This option is for users that want to create a bootable installation media (USB flash drive, DVD) or create a virtual machine (.ISO file) to install Windows 11. This download is a multi-edition ISO which uses your product key to unlock the correct edition.

The image shows a web interface for downloading Windows 11. It features a dropdown menu with the text "Windows 11 (multi-edition ISO for x64 devices)" and a downward arrow. Below the dropdown is a "Select Download" label. The dropdown menu is open, showing the same text as the selected option. Below the dropdown is a plus icon followed by the text "Before you begin downloading an ISO". At the bottom of the form is a blue button with the text "Download Now".

Windows 11 (multi-edition ISO for x64 devices) ▼

Select Download

Windows 11 (multi-edition ISO for x64 devices)

+ Before you begin downloading an ISO

[Download Now](#)

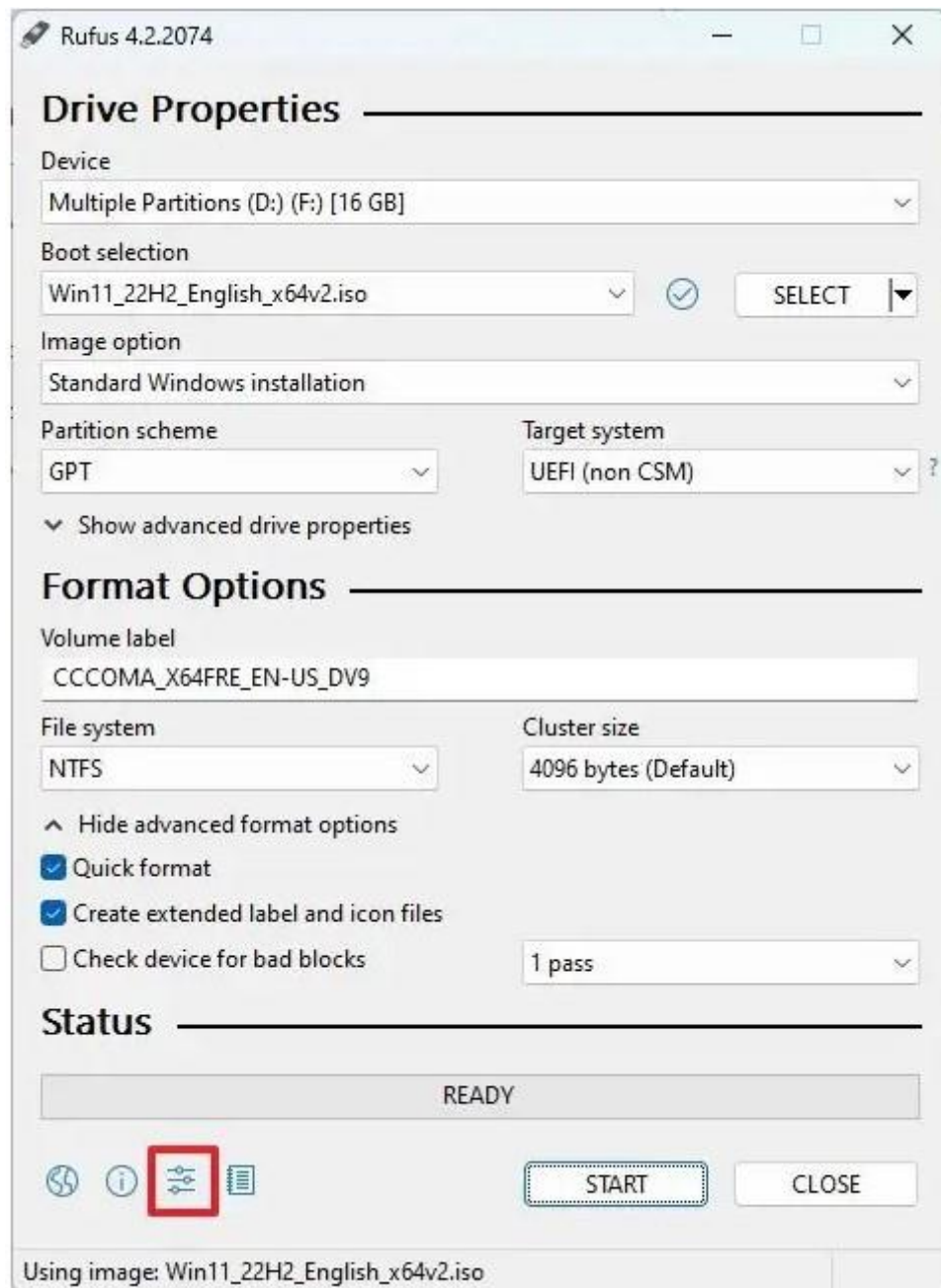
- Click before beginning to download an ISO and read the content in the dropdown to ensure you meet all requirements and also your PC meets requirement for download and installation of windows 11

- Verify your download option once the download completes

#### b) **Create Windows 11 bootable USB**

Connect a USB flash drive with 5GB+ of space, and then use these steps:

1. Open Rufus website. <https://rufus.ie/en/>
2. Under the “Download” section, click the link to download the latest version.
3. Double-click the executable to launch the tool.



4. Under the “Device section” use the drop-down and select the USB flash drive.
5. Under the “Boot selection section”, use the drop-down and select the “Disk or ISO image” option. Here you select the previously downloaded ISO file for windows 11 and click Open.
6. Under the “Image option” setting, select the “Standard Windows 11 Installation.
7. Under the “Partition scheme” select the GPT.
8. Under the “Target system” select the UEFI (non-CSM).
9. Under the “Volume label” specify a descriptive name for the bootable USB drive. For example, Win11\_Install\_USB.
10. Use the default settings for the File system and Cluster size options.
11. Check the Quick format option.
12. Check the “Create extended label and icon files” option.

13. Click the Start button.
14. Click the OK button to confirm the USB's deletion and the bootable drive's creation.

### c) Installing Windows 11 From the Bootable USB Drive

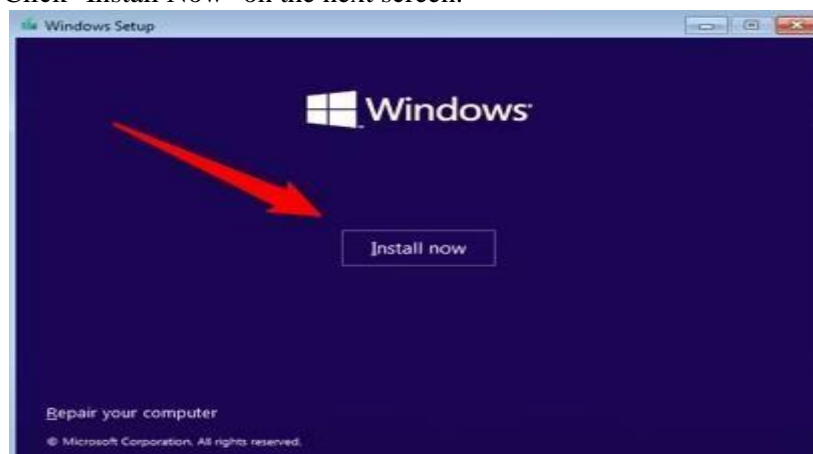
Insert the USB with the installation files in the PC you want to install the OS in and set the boot order so that the computer loads the operating system from a location other than its hard drive.

When you're booting your computer, press the appropriate key to open the BIOS or UEFI controls. The key that you need to press differs between computers, but it's usually F11 or F12.

After you select the USB drive from the boot menu, your PC will reboot from the USB drive (instead of the hard drive) and ask you to begin the setup of the installation media by pressing any key.



- Click "Install Now" on the next screen.



Windows will tell you that setup is starting, and then you'll be on the Windows Setup screen. This is the screen where you will activate your version of Windows. If you have your product key, enter it in the text box. If you don't, you can run a limited version of Windows by choosing "I Don't Have a Product Key" at the bottom of the

window. If you choose the latter option, you can enter the product key at a later point to unlock everything.

- If you entered your product key, click "Next" to continue. We'll select "I Don't Have a Product Key" in this example.



- On the next screen, select the version of Windows 11 that you want to install. If you already have a product key, be sure to select the correct version, as product keys only work with their respective version. Once you select your version, click "Next."
- Accept the license terms on the next screen by checking the box. Click "Next" to proceed.
- Select to upgrade, which installs the new version of Windows while keeping your files, apps, and settings.
- select "Custom: Install Windows Only (Advanced)"



- Select where you want to install Windows. If your hard drive is new, it may say something like "Drive 0 Unallocated Space." If you've partitioned your drive, its name will reflect that.
- Installation now begins.
- Once finished, your computer will reboot. In some cases, you'll get stuck in a boot loop where the system tries to bring you back to the installation process. This happens because the system might be trying to read from the USB drive instead of from the hard drive that you installed the OS on. If this happens, remove the USB drive and restart the computer.
- Windows 11 is successfully installed.

## QUESTION TWO


### 2. INSTALLING A TEXT EDITOR OR IDE INSTALLATION

For this section e will install visual studio code.

- Search Visual Studio Code using any web browser.
- Press the "Download for Windows" button on the website to start the download of the Visual Studio Code Application

# Download Visual Studio Code

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



↓ **Windows**

Windows 7, 8, 10, 11

User Installer

System Installer

.zip

64 bit

32 bit

64 bit

32 bit

64 bit

32 bit

ARM


ARM

ARM

ARM

ARM

ARM



↓ **.deb**

Debian, Ubuntu

↓ **.rpm**

Red Hat, Fedora, SUSE

.deb

.rpm

.tar.gz

64 bit

64 bit

64 bit

ARM

ARM


ARM

ARM 64

ARM 64

ARM 64

Snap Store



↓ **Mac**

macOS 10.11+

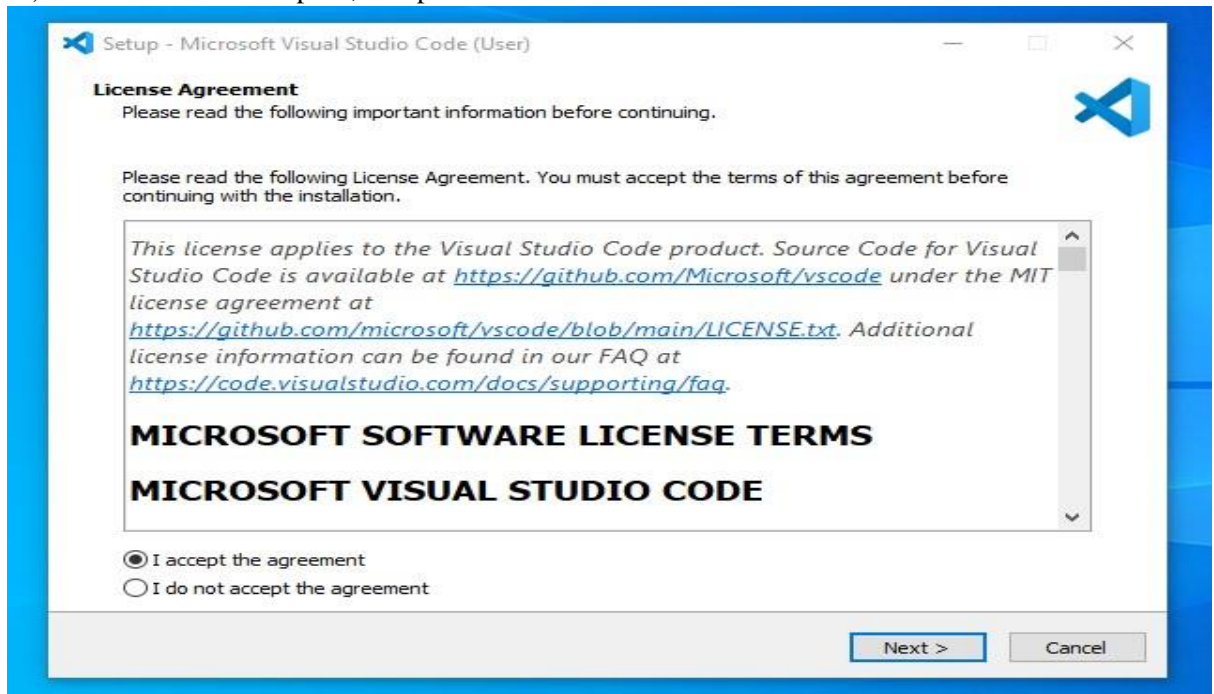
.zip

Universal

Intel Chip

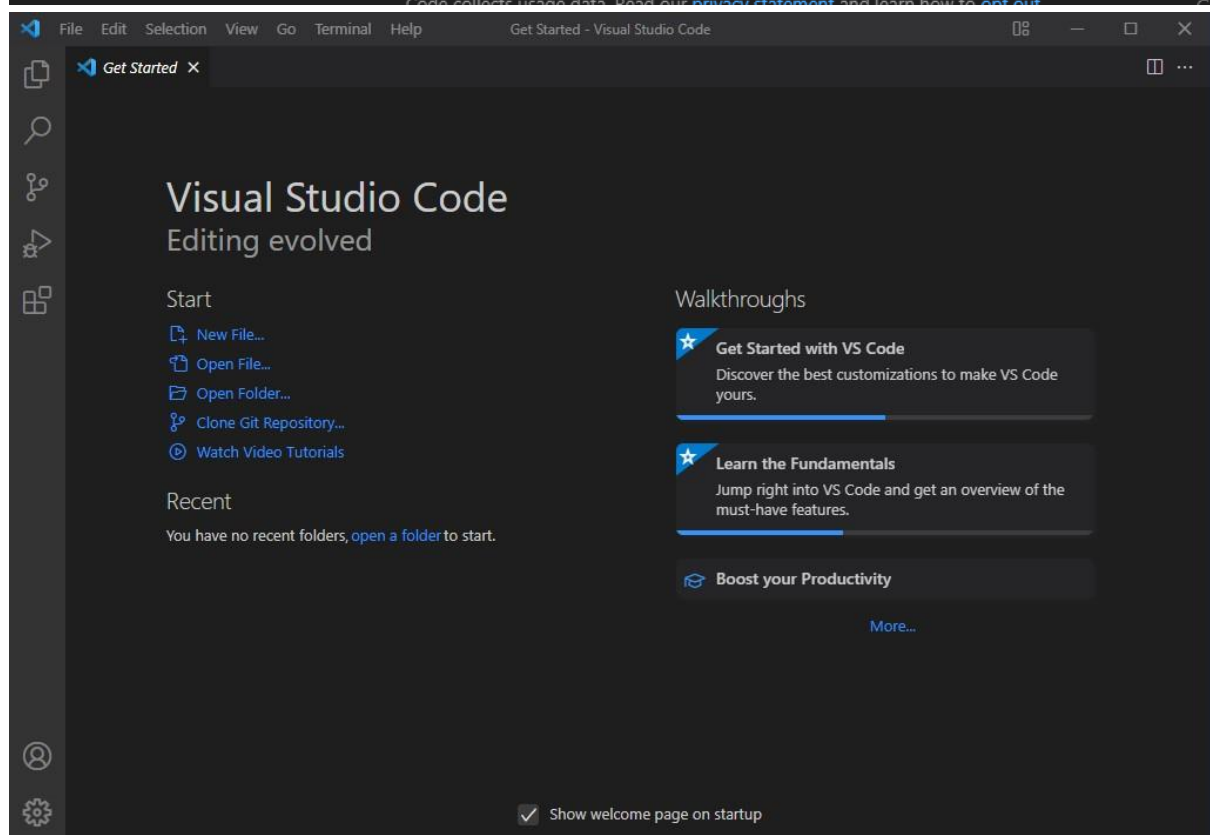
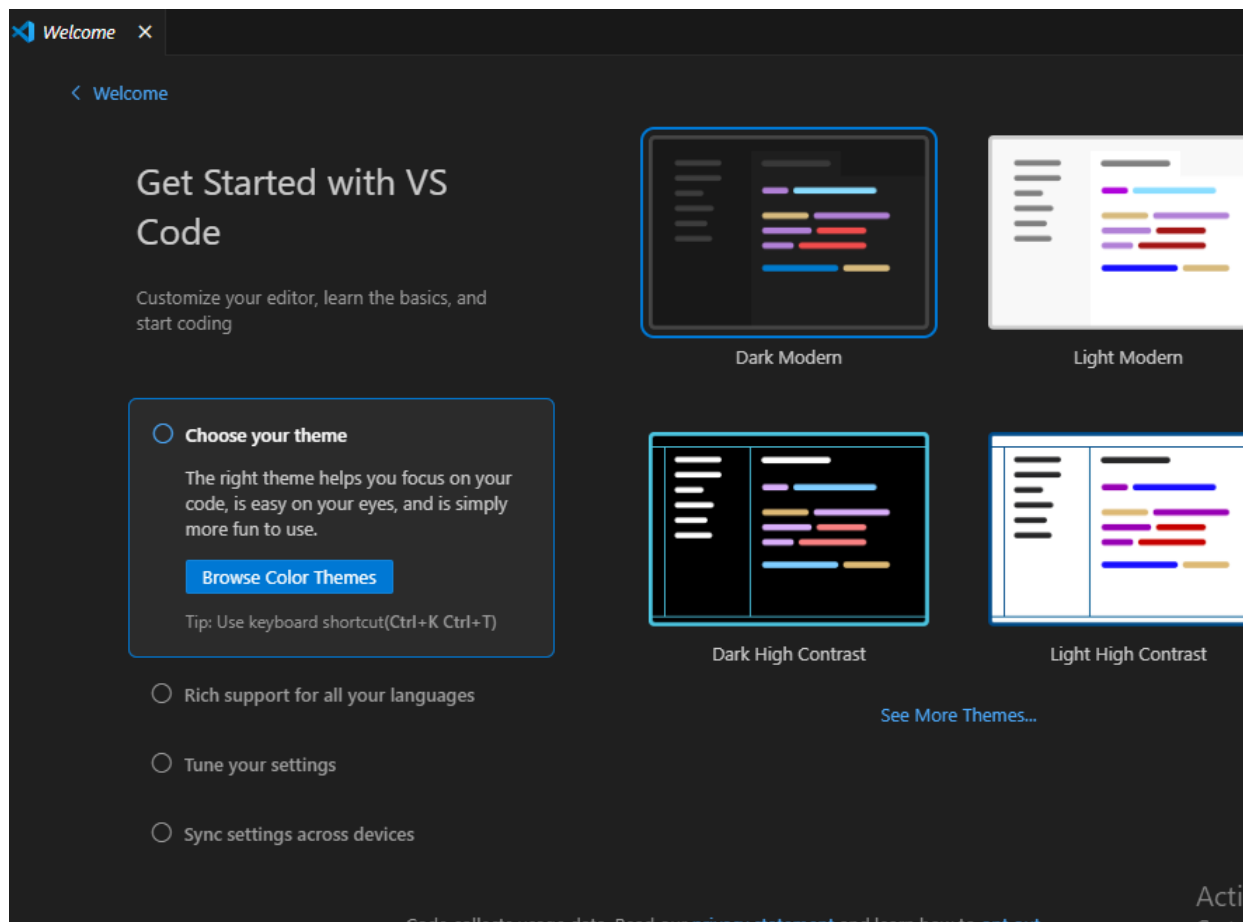
Apple Silicon

- c) When the download finishes, then the Visual Studio Code Icon appears in the downloads folder, click on the Installer icon to start the installation process.
- d) After the Installer opens, accept the terms and conditions of the Visual Studio Code.



- e) Choose the location data for running the Visual Studio Code. It will then ask you to browse the location. Then click on the Next button.
- f) Then it will ask to begin the installation setup. Click on the Install button.
- g) After the Installation setup for Visual Studio Code is finished, it will show a window like this below. Tick the "Launch Visual Studio Code" checkbox and then click Next.
- h) After the previous step, the Visual Studio Code window opens successfully.
- i) Then you can set up the theme you would like to use as well as other settings.





j)

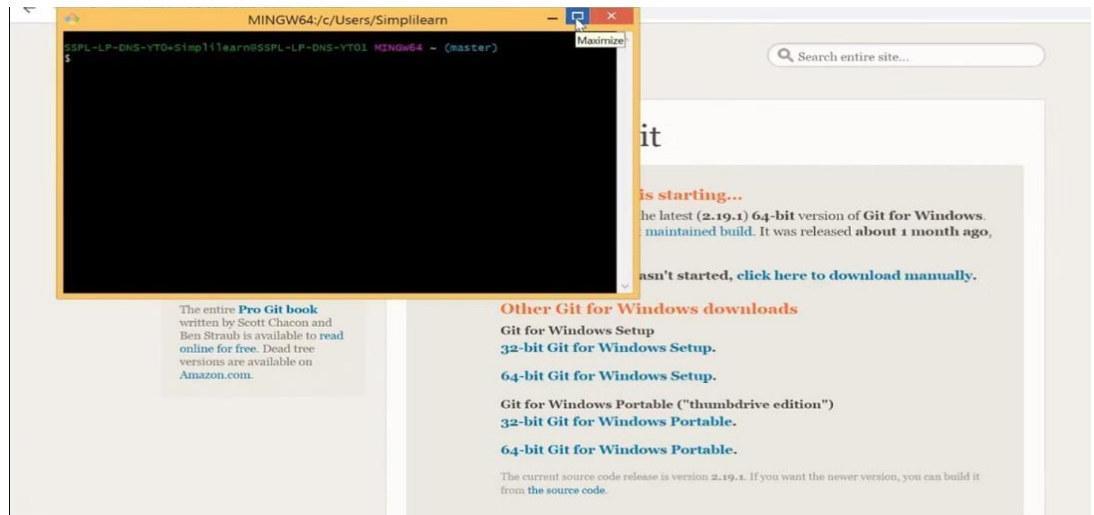


### QUESTION THREE

#### 3. INSTALLING GIT

Version control is a system that records changes to a file or set of files over time so that you can recall specific versions later.

- Download the latest version of Git from the official site <https://www.git-scm.com/downloads>
- Choose the 64/32 bit version.
- After the file is downloaded,
- Install it in the system.
- Select Launch the Git Bash, then click on finish.
- The Git Bash is now launched.



- Check the git version by running:

```
$ git --version
```

- Create a local directory using the following command:

```
$ mkdir test
```

```
$ cd test
```

- The next step is to initialize the directory:

```
$ git init
```

```
$ git status
```

- Next, make a commit using the following command:

```
$ git commit -m "committing a text file"
```

- Link the Git to a Github Account:

```
$ git config --global user.email "ENTER YOUR EMAIL"  
$ git config --global user.name "ENTER YOUR USERNAME"
```

- Open your GitHub account
- Create a new repository with the name of your choice and click on "Create repository."
- Next, copy the link of the name of the repository
- Go back to Git bash and link the remote and local repository using the following command:

```
$ git remote add origin <link>
```

### **QUESTION FOUR**

#### **4. INSTALLING PYTHON**

##### **a) Download and installation of Python**

- Use the link to download and install python <http://www.python.org/>
- Choose the Python Version
- Click download Python 3.12.





- After installation is complete click on Close
- Python is installed.
- Go to Windows and type IDLE.

### Installation of Python Package Manager(pip)

When installing python, PIP may be installed as well and therefore you can first whether 'pip,' the Python package manager, is already installed on your system.

- Open Your Command Line or Terminal
- Type the command: `pip --version`

\*This command will display the version of 'pip' if it's installed.

- **To check Python Installation:** Before proceeding, make sure you have Python installed on your system. To do this, open Command Prompt or PowerShell and type: “`python –version`”
- **Download PIP get-pip.py**  
Before installing PIP, download the get-pip.py file. Run the following cURL command in the command prompt:

```
curl https://bootstrap.pypa.io/get-pip.py -o get-pip.py
```

- **Installing PIP on Windows**

To install PIP, run the following Python command:

*python get-pip.py*

- **To Add Pip to Path**

To run PIP from any location and as a standalone command, add it to Windows environment variables. Doing so resolves the "not on Path" error.

To add PIP to Path, follow these steps:

- ❖ Open the Start menu, search for **Environment Variables**, and press Enter.
- ❖ Click the **Environment Variables** button.
- ❖ Double-click the **Path** variable to edit it.
- ❖ Select **New** and add the directory where PIP is installed.
- ❖ Click OK to save the changes.

## QUESTION FIVE

### 5. DOWNLOADING AND INSTALLING MYSQL DATABASE

- Use any web browser and use the following link to download.  
<https://dev.mysql.com/downloads/windows/installer/5.7.html>
- Select and download the second one with 398.9M

◀ MySQL Installer

General Availability (GA) Releases Archives ⓘ

### MySQL Installer 8.0.19

Select Operating System: Microsoft Windows Looking for previous GA versions?

<b>Windows (x86, 32-bit), MSI Installer</b> (mysql-installer-web-community-8.0.19.0.msi)	8.0.19	18.6M	<span>A</span> <span>Download</span>
<b>Windows (x86, 32-bit), MSI Installer</b> (mysql-installer-community-8.0.19.0.msi)	8.0.19	398.9M	<span>B</span> <span>Download</span>

MD5: 32043776cb2239db45fddaa86dc0ad61 | [Signature](#)

MD5: 1a882015da7fb93f20c4717e63b6817c | [Signature](#)

! We suggest that you use the MD5 checksums and GnuPG signatures to verify the integrity of the packages you download.

- Click on No thanks, just start my download option at the bottom of the page.

## MySQL Community Downloads

**Login Now or Sign Up for a free account.**

An Oracle Web Account provides you with the following advantages:

- Fast access to MySQL software downloads
- Download technical White Papers and Presentations
- Post messages in the MySQL Discussion Forums
- Report and track bugs in the MySQL bug system

Login »  
using my Oracle Web account

Sign Up »  
for an Oracle Web account

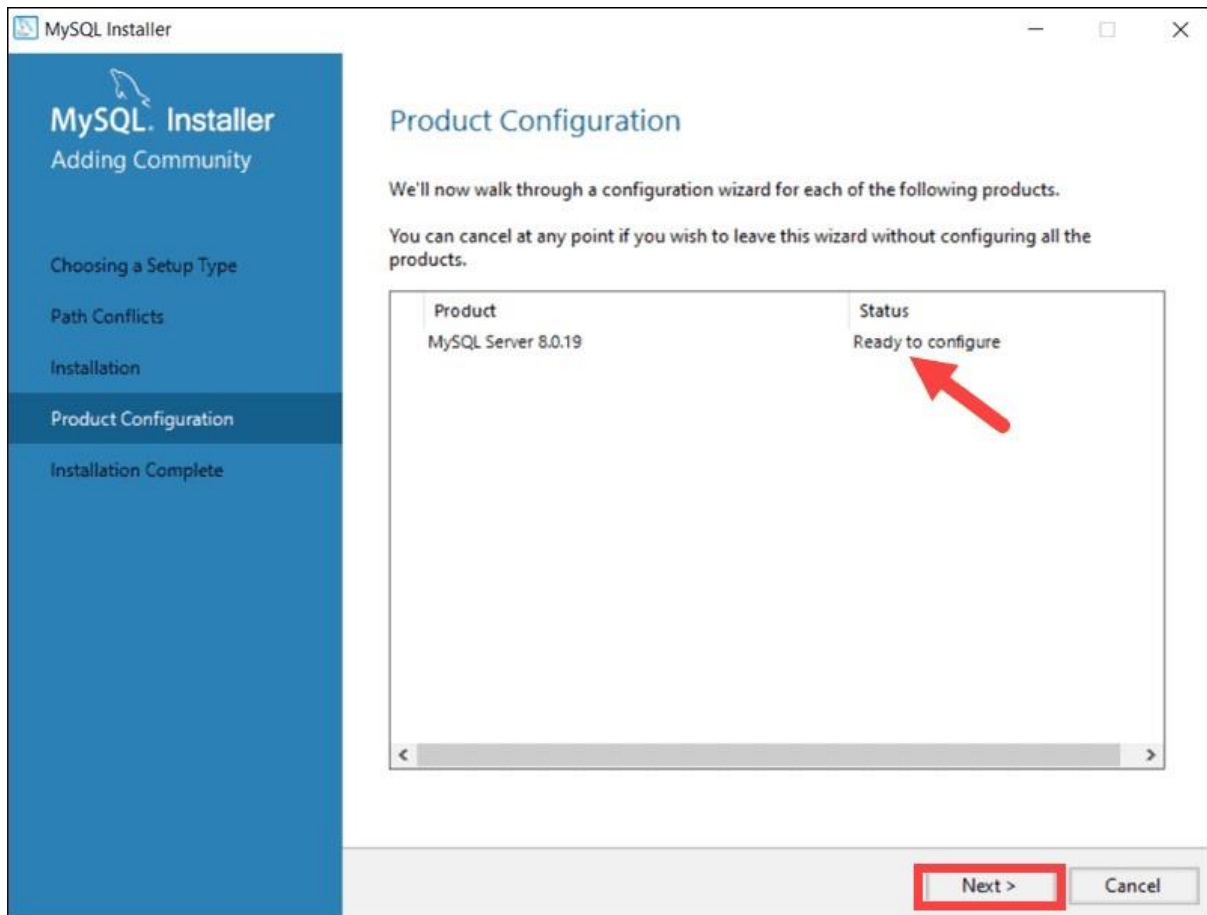
MySQL.com is using Oracle SSO for authentication. If you already have an Oracle Web account, click the Login link. Otherwise, you can sign up for a free account by clicking the Sign Up link and following the instructions.

**No thanks, just start my download.**

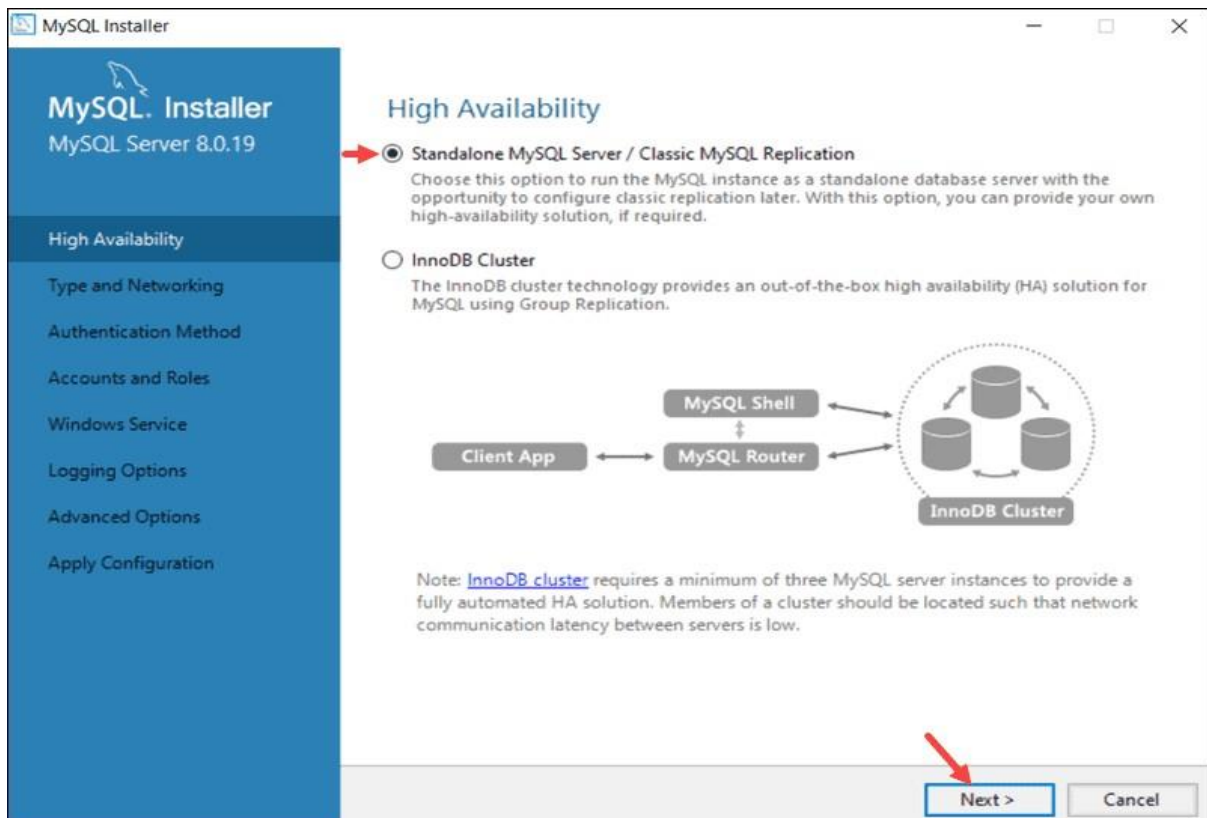
- IV. Accept the Oracle license agreement terms,
- V. You can choose between several predefined options or create your custom setup type.
  - Developer Default
  - Server Only
  - Client Only
  - Custom

At this point, the system tries to resolve possible inconsistencies. It might inform you that additional packages need to be installed for the process to continue (e.g., Microsoft Visual C++ 2019 Redistributable Package). You can also run into Path installation inconsistencies if you have previous MySQL installations on your Windows Server.

- VI. Click Execute to begin the installation process.
- VII. Once the status of the installation status states complete, you are ready to configure the MySQL database.



## Configure Mysql Server On Windows



- High Availability

- Type and Networking
  - Choose the Development Computer.
  - Check the Show Advanced and Logging Option box
  - Authentication Method: Strong Password Authentication option.
- Accounts and Roles
 

You are now prompted to enter a password for your MySQL root user. You can also create additional roles for various users and purposes.
- Windows Service
 

By defining MySQL as a Windows Service, it can now start automatically whenever the Windows system boots.
- Apply Configuration
 

You have successfully configured the MySQL server and need to confirm for the MySQL Installer to apply the configuration.

Click Finish to complete the MySQL server installation on Windows.

### **To start MySQL Server on Windows**

To start the MySQL Server on Windows for the first time enter the following command in the Windows Command Prompt: "C:\Program Files\MySQL\MySQL Server 8.0\bin\mysqld" --console

### **To stop MySQL Server on Windows**

To shut down MySQL Server in Windows, type the following command in the Windows Command Prompt: "C:\Program Files\MySQL\MySQL Server 8.0\bin\mysqladmin" -u root shutdown

## **CHALLENGES ENCOUNTERED**

When installing MYSQL, I had a challenge that my server was having an issue to install but the rest like workbench, had successfully installed. I tried to repair but it wasn't successful. I decided to uninstall everything and use a different link besides the one provided in the assignment which is: <https://dev.mysql.com/downloads/windows/installer/5.7.html>, I typed at my browser dev.mysql.com and I went ahead to download the MySQL and I was certainly successful

## **REFERENCES**

1. V, K. (2021, July 1). *How to install and configure MySQL on Windows*. From Knowledge Base by phoenixNAP: <https://phoenixnap.com/kb/install-mysql-on-windows>.
2. G, J. (2023, December 29). *How to install PIP on Windows* | phoenixNAP KB. From Knowledge Base by phoenixNAP: <https://phoenixnap.com/kb/install-pip-window>
3. My self through the lessons taken through in PLP and outside PLP