

Assignment Setting up your developer Environment

1. Setting up windows 11

Step 1 - Format the drive and set the primary partition as active.

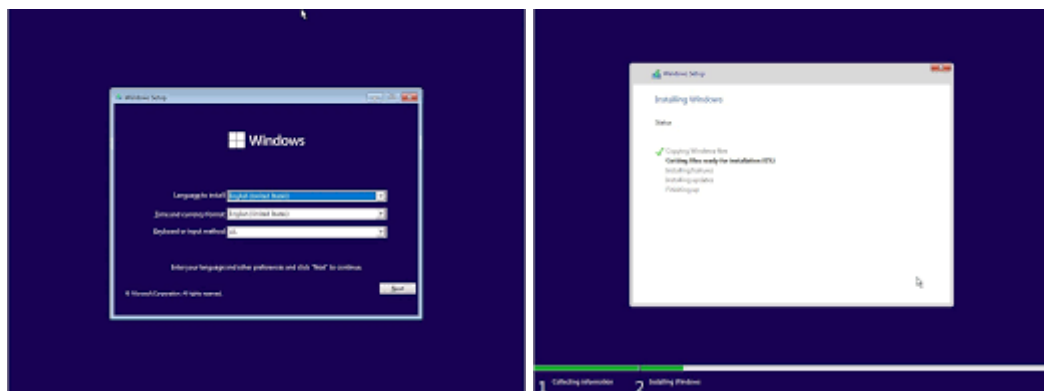
1. Connect the USB flash drive to your technician PC.
2. Open Disk Management: Right-click on Start and choose Disk Management.
3. Format the partition: Right-click the USB drive partition and choose Format. Select the FAT32 file system to be able to boot either BIOS-based or UEFI-based PCs.
4. Set the partition as active: Right-click the USB drive partition and click Mark Partition as Active.

Step 2 - Copy Windows Setup to the USB flash drive.

1. Use File Explorer to copy and paste the entire contents of the Windows product DVD or ISO to the USB flash drive.
2. Optional: add an unattend file to automate the installation process. For more information, see [Automate Windows Setup](#).

Step 3 - Install Windows to the new PC.

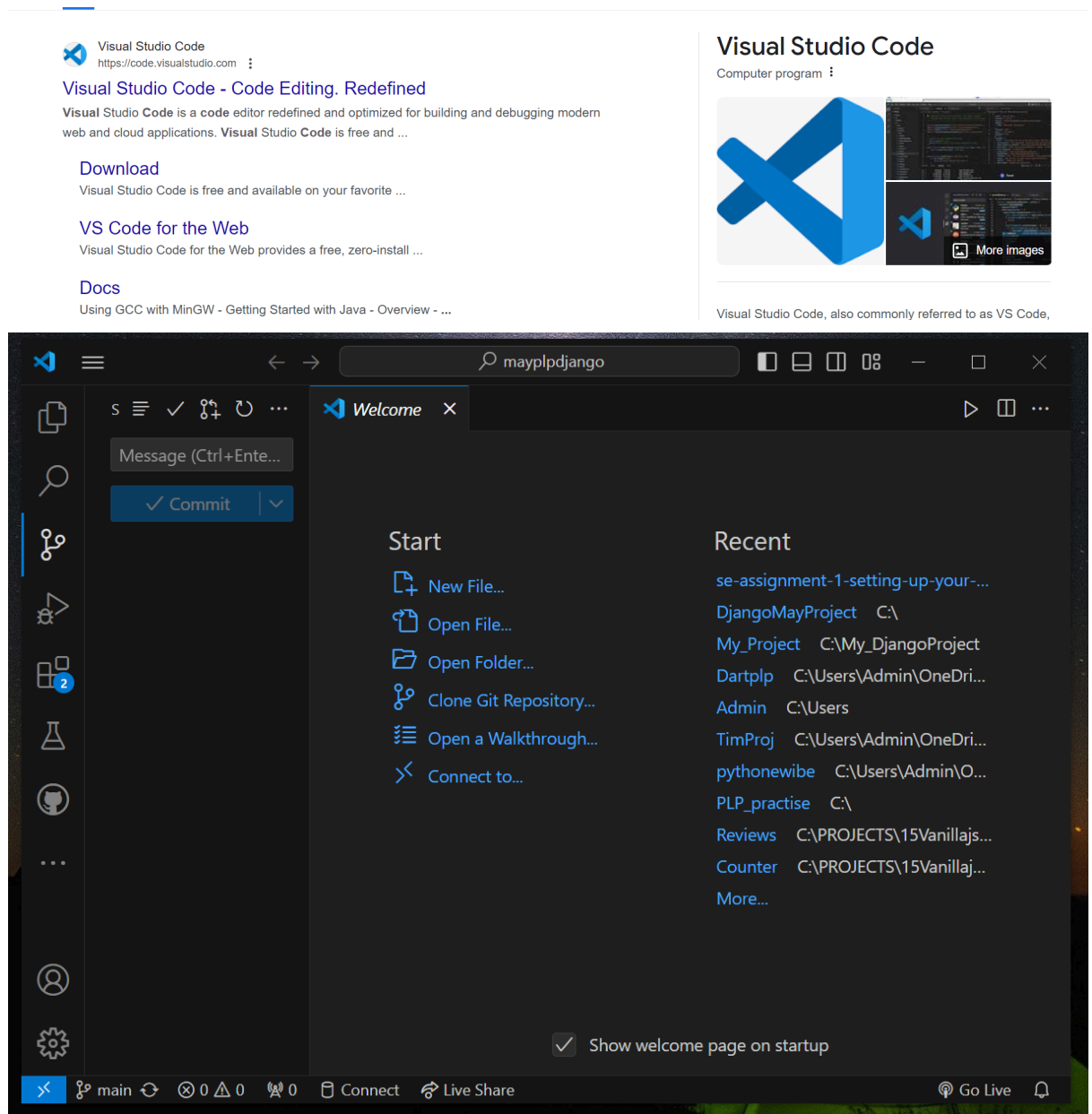
- Connect the USB flash drive to a new PC.
- Turn on the PC and press the key that opens the boot-device selection menu for the computer, such as the Esc/F10/F12 keys. Select the option that boots the PC from the USB flash drive.
- Windows Setup starts. Follow the instructions to install Windows.
- Remove the USB flash drive.



2. Visual Studio Code Installation.

1. Setting up Visual Studio involves a few steps. Here's a concise step-by-step guide:
2. Download Visual Studio:
3. Visit the [Visual Studio website](#) and click on "Download Visual Studio."
4. Follow the on-screen instructions to download the installer.
5. . Run the Installer:
6. Run the downloaded installer.
7. Choose the "Visual Studio" workload during installation, which includes the necessary components for general development.
8. . Select Workloads and Components:
9. In the Visual Studio Installer, select the workloads and components you need based on your development requirements. Common workloads include ".NET Desktop Development" or "Web Development."
10. Modify Installation (Optional):

11. If needed, you can customize the installation by clicking on the "Individual components" tab in the installer and selecting or deselecting specific components.
12. Install:
13. Click the "Install" button to start the installation process.
14. This may take some time, as it involves downloading and installing the selected components.
15. Launch Visual Studio:
16. Once the installation is complete, launch Visual Studio.
17. Sign in with your Microsoft account or create one if prompted.
18. Choose Development Environment:
19. On the welcome screen, select your development environment. For example, you can choose "Development Settings" based on your preferred coding style.
20. Start Coding:
21. You're now ready to start coding! Create a new project or open an existing one to begin your development work.



3.Git installation

To see if you already have Git installed, open up your terminal application.

- If you're on a Mac, look for a command prompt application called "Terminal".
- If you're on a Windows machine, open the windows command prompt or "Git Bash".

Once you've opened your terminal application, type `git version`. The output will either tell you which version of Git is installed, or it will alert you that `git` is an unknown command. If it's an unknown command, read further and find out how to install **Git**.

1. Navigate to the latest [Git for Windows installer](#) and download the latest version.
2. Once the installer has started, follow the instructions as provided in the Git Setup wizard screen until the installation is complete.
3. Open the windows command prompt (or Git Bash if you selected not to use the standard Git Windows Command Prompt during the Git installation).
4. Type `git version` to verify Git was installed.

Note: [git-scm](#) is a popular and recommended resource for downloading Git for Windows. The advantage of downloading Git from `git-scm` is that your download automatically starts with the latest version of Git included with the recommended command prompt, `Git Bash`. The download source is the same [Git for Windows installer](#) as referenced in the steps above.

Git
https://www.git-scm.com

Git

Git is easy to learn and has a tiny footprint with lightning fast performance. It outclasses SCM tools like Subversion, CVS, Perforce, and ClearCase with ...

Download for Windows

Click here to download the latest (2.45.2) 32-bit version of Git for ...

Downloads

Windows - macOS - Linux/Unix - GUI Clients - ...

Documentation

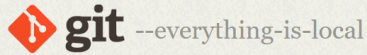
Reference - What is Version Control? - Videos - External Links

Git

System software



Git is a distributed version control system that tracks



Search entire site...

Git is a **free and open source** distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

Git is **easy to learn** and has a **tiny footprint with lightning fast performance**. It outclasses SCM tools like Subversion, CVS, Perforce, and ClearCase with features like **cheap local branching**, convenient **staging areas**, and **multiple workflows**.



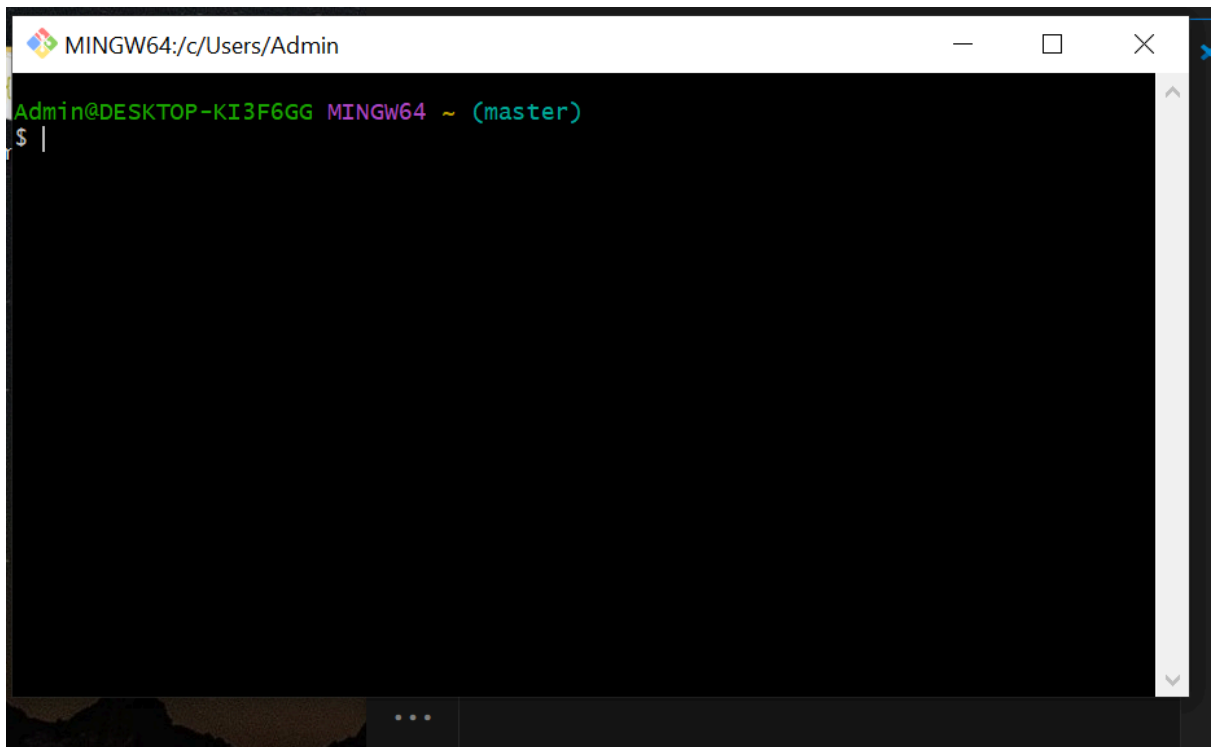
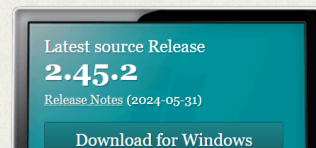
About

The advantages of Git compared to other source control systems.



Documentation

Command reference pages, Pro Git book content, videos and other material.



4. Git Hub Setup

GitHub Setup Summary

1. Sign Up for GitHub

- Create an account on GitHub.

2. Install Git

- Download and install Git.

3. Configure Git

- Set your username and email:

```
```bash
git config --global user.name "Your Name"
git config --global user.email "youremail@example.com"
```
```

4. Create a Repository on GitHub

- Log in and create a new repository.

5. Initialize Local Repository

- In your project directory:

```
```bash
git init
```
```

6. Link Local Repository to GitHub

- Add remote:

```
```bash
git remote add origin https://github.com/yourusername/your-repo-name.git
```
```

7. Add and Commit Files

- Add files:

```
```bash
git add .
```
```

- Commit changes:

```
```bash
git commit -m "Initial commit"
```
```

8. Push Changes to GitHub

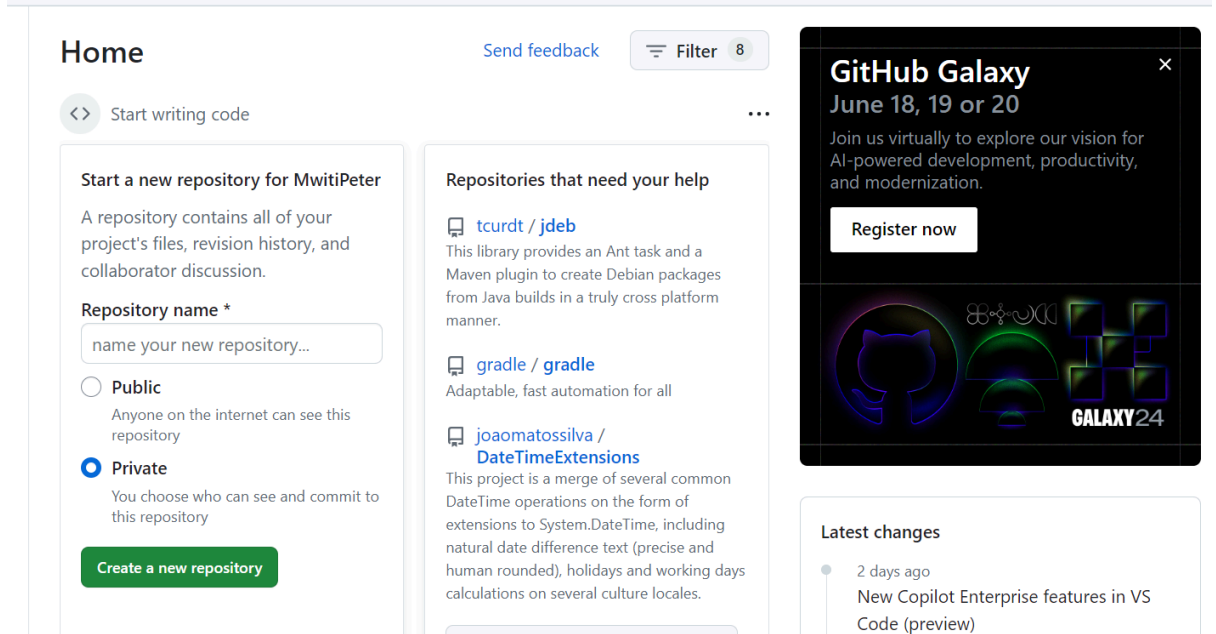
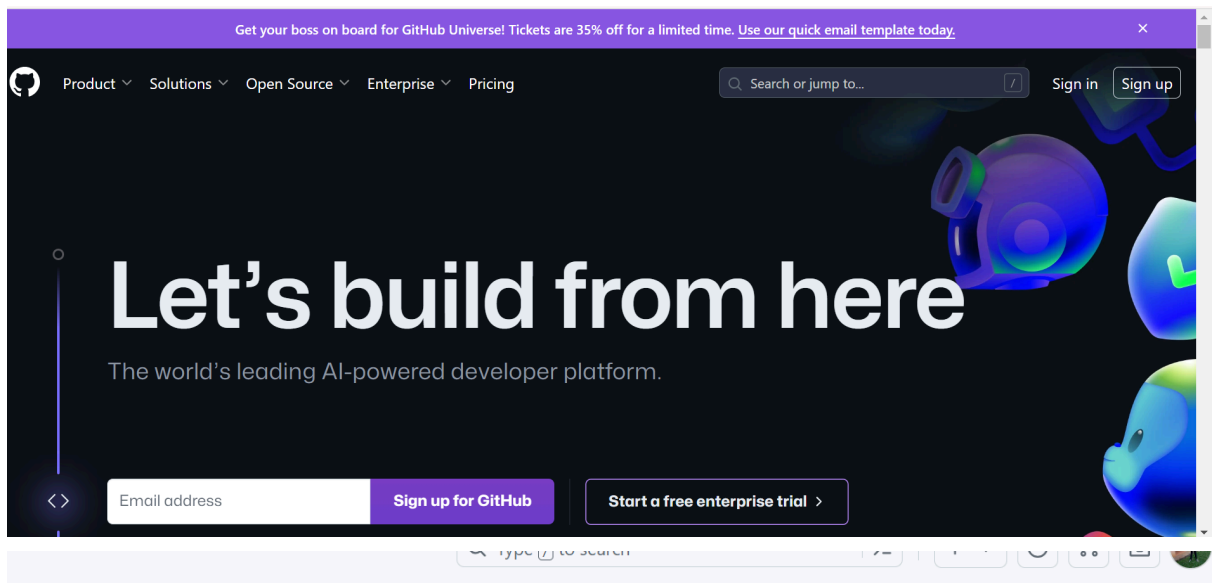
```
```bash
git push -u origin master
```
```

9. Clone Repository

```
```bash
git clone https://github.com/username/repo-name.git
```
```

10. Basic Git Commands

- Check status: ``git status``
- Add files: ``git add <filename>``
- Commit: ``git commit -m "message"``
- Push: ``git push``
- Pull: ``git pull``





Sign in to GitHub

Username or email address

Password

[Forgot password?](#)

Sign in

[Sign in with a passkey](#)

New to GitHub? [Create an account](#)

5. Python Installation

For you to use Python, you need to download it from the internet and install on your computer.

Installation on Windows

Visit the link <https://www.python.org/downloads/> to download the latest release of Python. In this process, we will install Python 3.8.6 on our Windows operating system. When we click on the above link, it will bring us the following page.

Step - 1: Select the Python's version to download.

Step - 2: Click on the Install Now

Double-click the executable file, which is downloaded;

the following window will open.

Select Customize installation and proceed.

Click on the Add Path check box, it will set the Python path automatically.

We can also click on the customize installation to choose desired location and features.

Other important thing is install launcher for the all user must be checked.

Step - 3 Installation in Process

Download Python | Python.org


python.org/downloads/

Looking for a specific release?

Python releases by version number:

| Release version | Release date | | Click for more |
|-------------------------------|----------------|--------------------------|-------------------------------|
| Python 3.9.0 | Oct. 5, 2020 | Download | Release Notes |
| Python 3.8.6 | Sept. 24, 2020 | Download | Release Notes |
| Python 3.5.10 | Sept. 5, 2020 | Download | Release Notes |
| Python 3.7.9 | Aug. 17, 2020 | Download | Release Notes |
| Python 3.6.12 | Aug. 17, 2020 | Download | Release Notes |
| Python 3.8.5 | July 20, 2020 | Download | Release Notes |
| Python 3.8.4 | July 13, 2020 | Download | Release Notes |
| Python 3.7.8 | June 27, 2020 | Download | Release Notes |

[View older releases](#)

 python™

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Python >>> Downloads >>> Windows

Python Releases for Windows

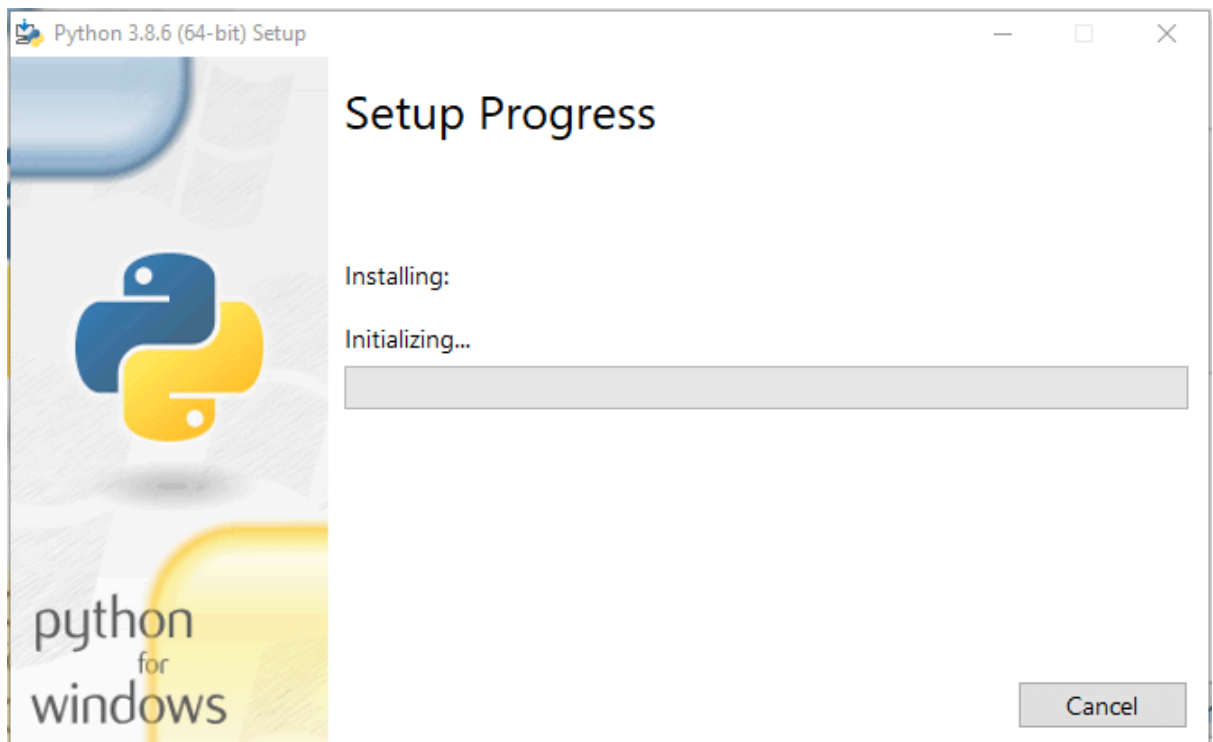
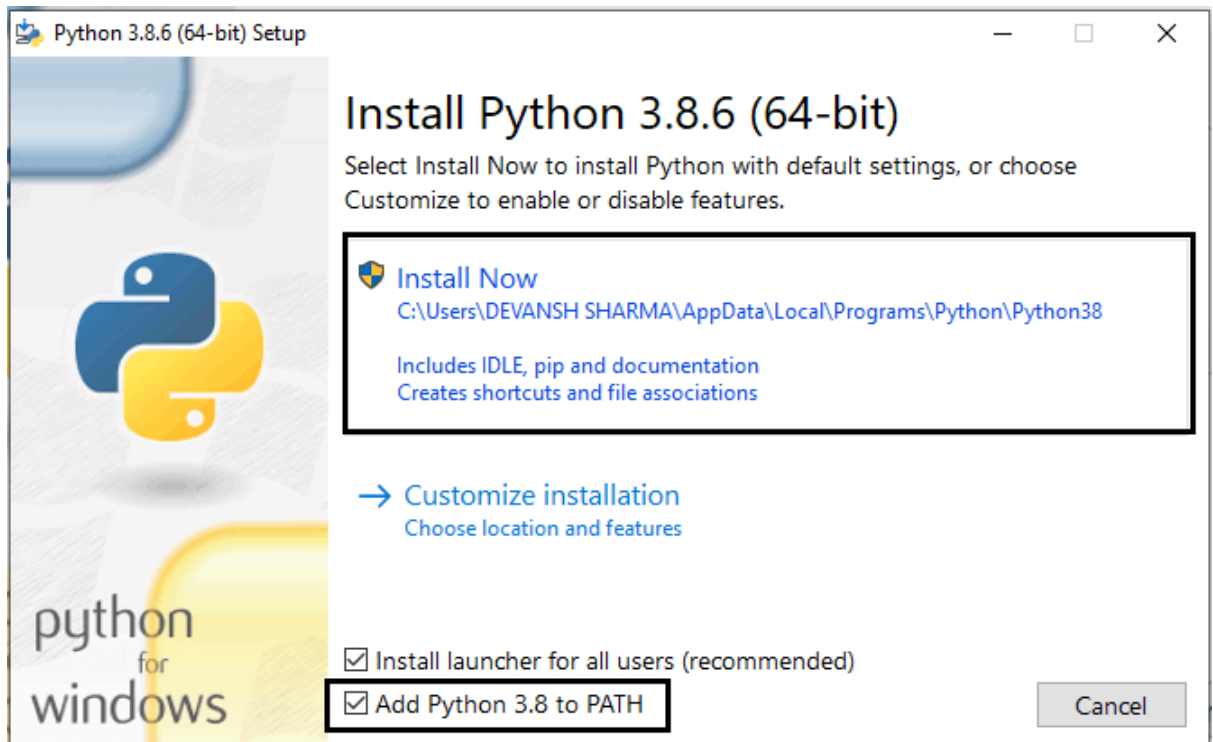
- [Latest Python 3 Release - Python 3.12.4](#)

Stable Releases

- [Python 3.12.4 - June 6, 2024](#)
Note that Python 3.12.4 cannot be used on Windows 7 or earlier.

Pre-releases

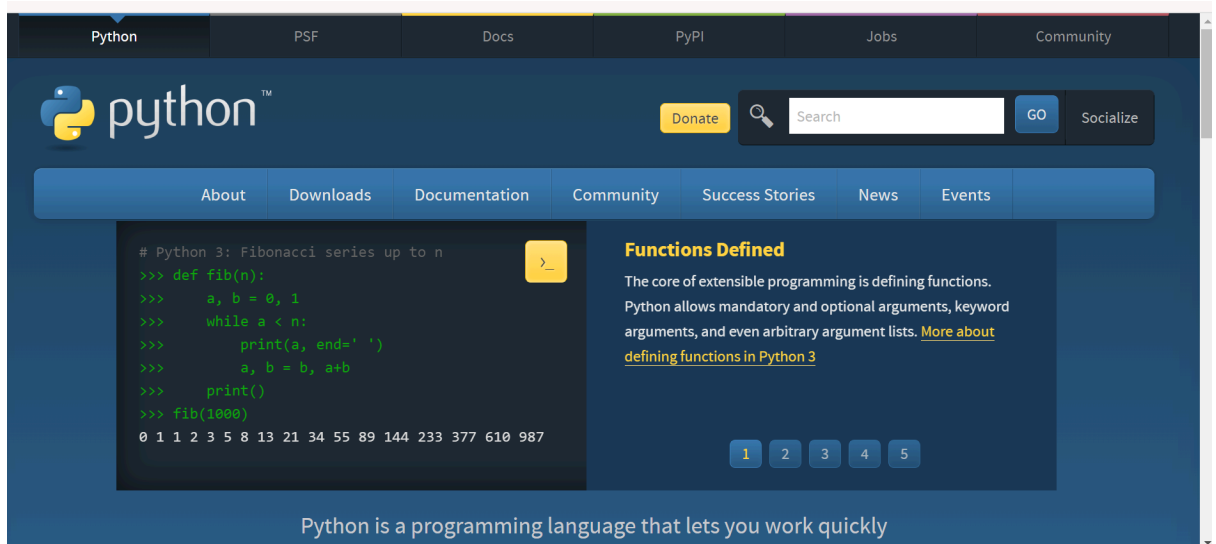
- [Python 3.13.0b2 - June 5, 2024](#)
 - Download [Windows installer \(64-bit\)](#)



```
MINGW64:/c/Users/Admin

Admin@DESKTOP-KI3F6GG MINGW64 ~ (master)
$ python --version
Python 3.12.3

Admin@DESKTOP-KI3F6GG MINGW64 ~ (master)
$ |
```



6.Pip installation

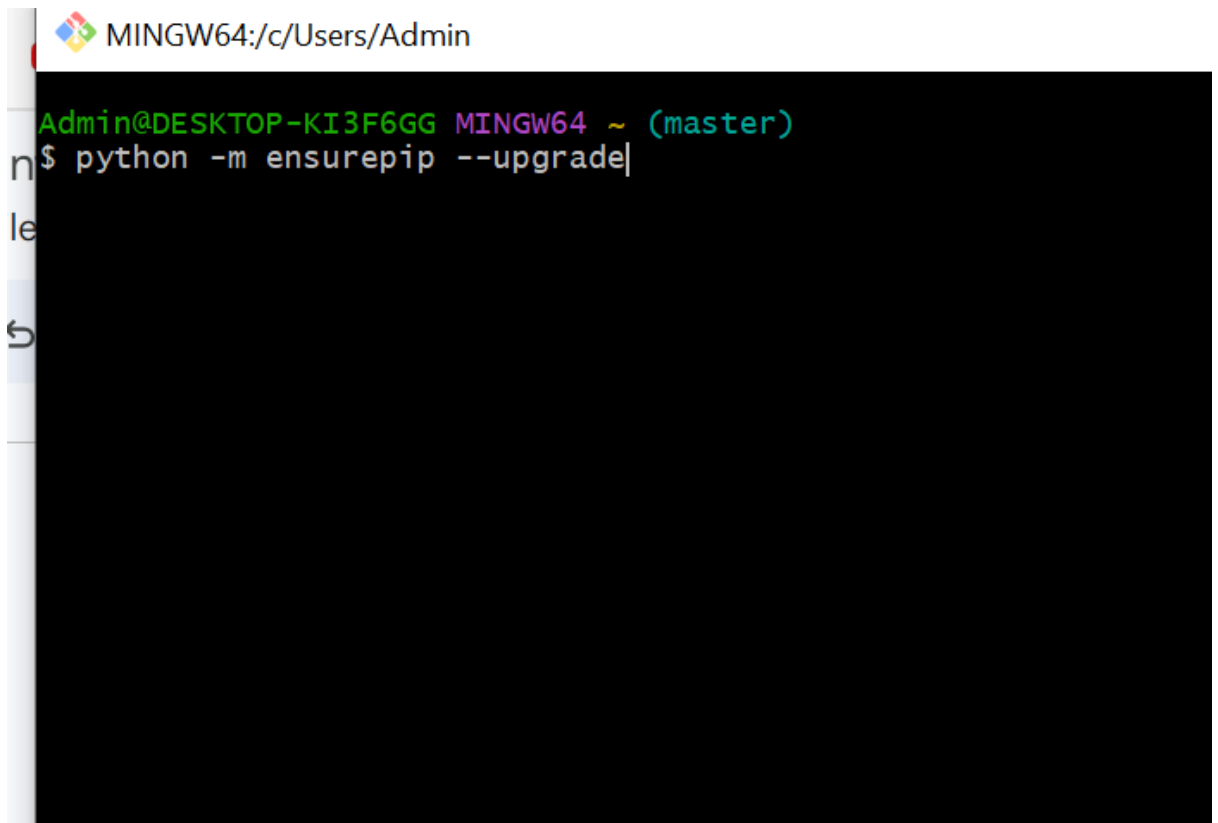
```
MINGW64:/c/Users/Admin

Admin@DESKTOP-KI3F6GG MINGW64 ~ (master)
$ python --version
```

```
MINGW64:/c/Users/Admin

Admin@DESKTOP-KI3F6GG MINGW64 ~ (master)
$ python -m ensurepip --upgrade
Looking in links: c:\Users\Admin\AppData\Local\Temp\tmp16jnk6d2
Requirement already satisfied: pip in c:\users\admin\appdata\local\programs\python\python312\lib\site-packages (24.0)

Admin@DESKTOP-KI3F6GG MINGW64 ~ (master)
$ |
```



```
MINGW64:/c/Users/Admin  
Admin@DESKTOP-KI3F6GG MINGW64 ~ (master)  
$ python -m ensurepip --upgrade|
```

7.MySql Installaton

After downloading, unzip it, and double click the MSI installer .exe file.

Then follow the steps below:

1. "Choosing a Setup Type" screen: Choose "Full" setup type. This installs all MySQL products and features. Then click the "Next" button to continue.
2. "Check Requirements" screen: The installer checks if your pc has the requirements needed. If there is some failing requirements, click on each item to try to resolve them by clicking on the Execute button that will install all requirements automatically. Click "Next".
3. "Installation" screen: See what products that will be installed. Click "Execute" to download and install the Products. After finishing the installation, click "Next".
4. "Product Configuration" screen: See what products that will be configured. Click the "MySQL Server 8.0.23" option to configure the MySQL Server. Click the "Next" button. Choose the "Standalone MySQL Server/Classic MySQL Replication" option and click on the "Next" button. In page "Type and

Networking" set Config Type to "Development Computer" and "Connectivity" to "TCP/IP" and "Port" to "3006". Then, click the "Next" button.

5. "Authentication Method" screen: Choose "Use Strong Password Encryption for Authentication". Click "Next".

6. "Accounts and Roles" screen: Set a password for the root account. Click "Next".

7. "Windows Service" screen: Here, you configure the Windows Service to start the server. Keep the default setup, then click "Next".

8. "Apply Configuration" screen: Click the "Execute" button to apply the Server configuration. After finishing, click the "Finish" button.

9. "Product Configuration" screen: See that the Product Configuration is completed. Keep the default setting and click on the "Next" and "Finish" button to complete the MySQL package installation.

10. In the next screen, you can choose to configure the Router. Click on "Next", "Finish" and then click the "Next" button.

11. "Connect To Server" screen: Type in the root password (from step 6). Click the "Check" button to check if the connection is successful or not. Click on the "Next" button.

12. "Apply Configuration" screen: Select the options and click the "Execute" button. After finishing, click the "Finish" button.

13. "Installation Complete" screen: The installation is complete. Click the "Finish" button.

MySQL
Installer

| Product | Version | Architecture | Quick Action |
|----------------------|---------|--------------|-----------------------------|
| MySQL Server | 8.0.37 | X64 | Reconfigure |
| MySQL Workbench | 8.0.36 | X64 | |
| MySQL Shell | 8.0.37 | X64 | |
| MySQL Router | 8.0.37 | X64 | Reconfigure |
| MySQL Documentation | 8.0.37 | X86 | |
| Samples and Examples | 8.0.37 | X86 | Reconfigure |


Add ...


Modify ...


Upgrade ...

Remove ...

Catalog...

 MySQL Workbench

[File](#) [Edit](#) [View](#) [Database](#) [Tools](#) [Scripting](#) [Help](#)




Welcome to MySQL


MySQL Workbench is the official graphical user interface (GUI) tool to create and browse your database schemas, work with database objects, design and run SQL queries to work with stored data. You can also manage database vendors to your MySQL data.

[Browse Documentation >](#) [Read the Blog >](#)


MySQL Connections


Local instance MySQL80



 root

 localhost:3307

NewPlpDatabase





 root

 127.0.0.1:3307

 The world's most popular open source database 

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[MYSQL.COM](#) [DOWNLOADS](#) [DOCUMENTATION](#) [DEVELOPER ZONE](#)

MySQL HeatWave

One MySQL Database service for OLTP, OLAP, ML, and Lakehouse

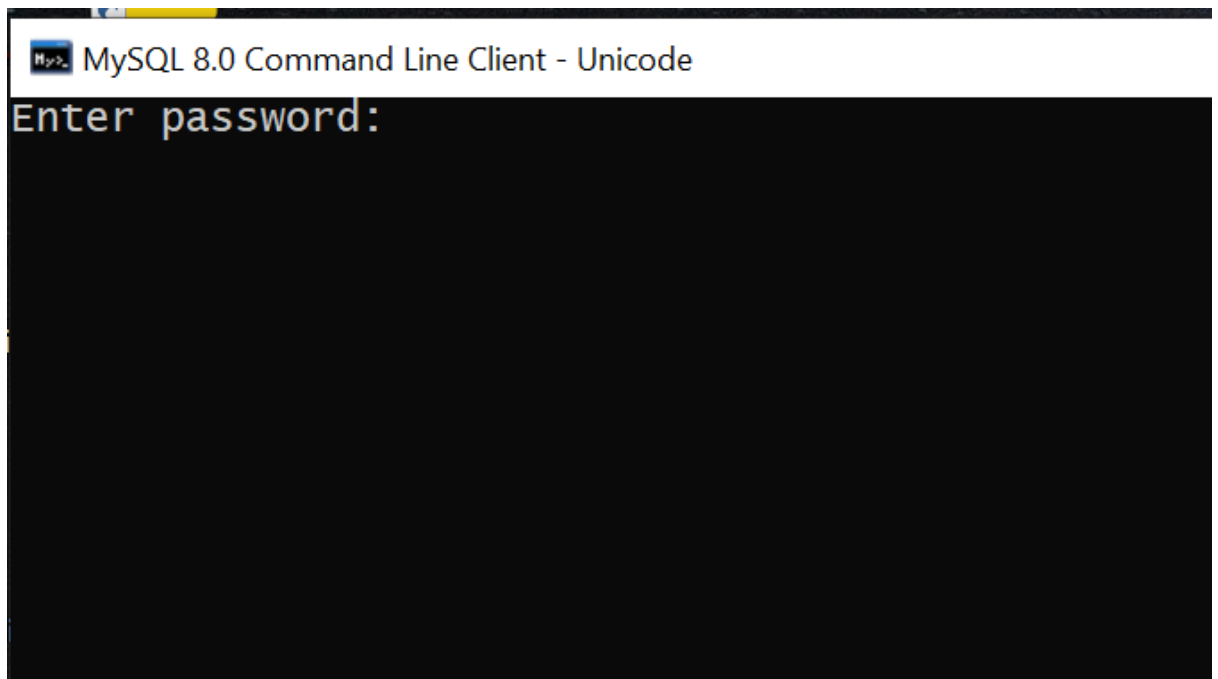
Unmatched price-performance

- 10X Better Price-performance than Redshift
- 15X Better Price-performance than Snowflake
- 2,200X Better Price-performance than Aurora





Videos: MySQL and HeatWave Summit 2024

The keynote and sessions covering MySQL high availability, performance tuning, GenAI, machine learning, and more are available to watch on-demand.











[Watch Now »](#)



8.VS code Extension



mayplpdjang




EXTENSIONS

Search Extensions in Marketplace

INSTALLED

42




Python

Python language support with extension access ...

Microsoft

Restart Extensions

2365ms




SQL Server Client(mssql)

Database manager for MySQL/MariaDB, Postgre...

Weijan Chen

Restart Extensions

12684ms




.NET Install Tool

This extension installs and manages different ve...

Microsoft

1794ms




Auto Close Tag

Automatically add HTML/XML close tag, same a...

Jun Han

465ms




Auto Rename Tag

Auto rename paired HTML/XML tag

Jun Han

384ms



C/C++

C/C++ IntelliSense, debugging, and code brows...

RECOMMENDED

0

>>

main

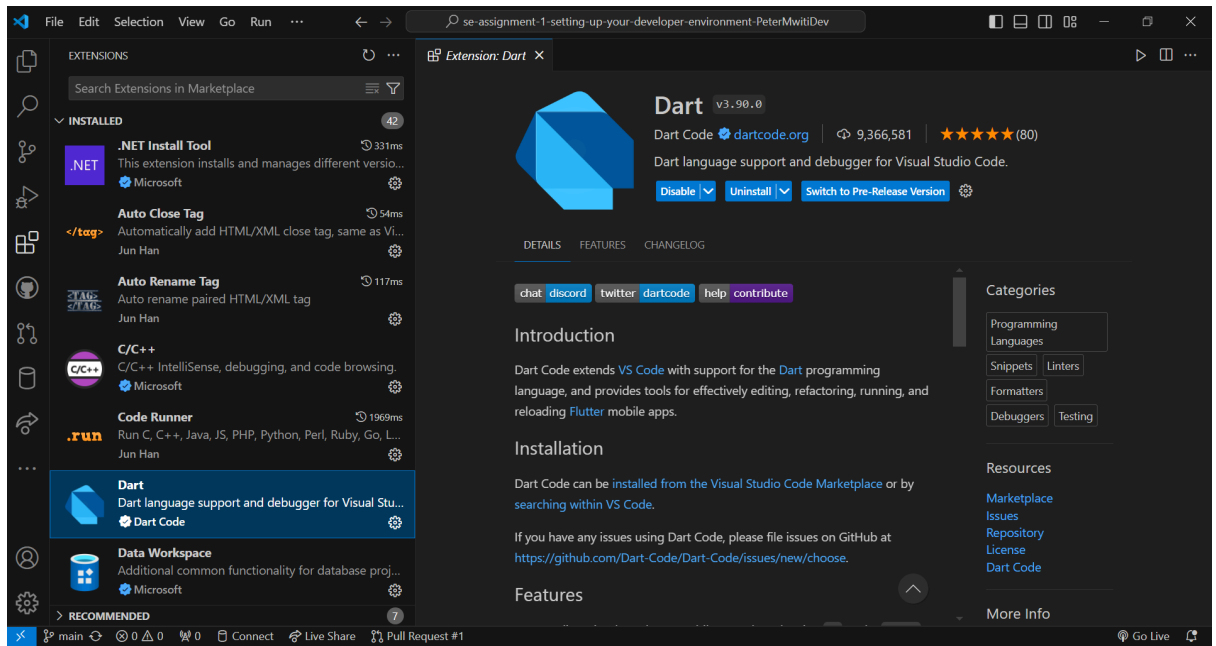
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Connect

Live Share



9. My Github Repository

<https://github.com/MwitiPeter/mayplpdjango.git>

Challenges OfSettingup an Environment

1. Compatibility Issues
2. Dependency Management
3. Configuration Complexity
4. Resource Requirements
5. Security Concerns
6. Documentation and Knowledge Gaps
7. Network Issues

Strategies to overcome

Strategies to Overcome Challenges in Setting Up a Coding Environment

1. Compatibility Issues
 - Use cross-platform tools.
 - Document OS-specific setups.
 - Use containerization (e.g., Docker).
2. Dependency Management
 - Use package managers.
 - Implement version control for dependencies.
 - Use virtual environments.
3. Configuration Complexity
 - Automate setup with scripts.
 - Use environment management tools.

- Employ configuration management systems.

4. Resource Requirement

- Regularly optimize and clean up the environment.
- Use cloud-based development environments.
- Upgrade hardware as needed.

5. Security Concerns

- Store sensitive information securely.
- Regularly update software.
- Implement access controls and permissions.

6. Documentation and Knowledge Gaps

- Maintain up-to-date setup guides.
- Use community resources and forums.
- Provide training and onboarding sessions.