JOSHUA MWILENGA

ENVIROMENTAL SET UP

ASSIGNMENT-1

1. Installing Window Operating system step by step

Step 1: Download Windows 11

a) Visit the Microsoft Website
   - Go to the official Windows 11 download page.

b) Download the Installation Media
   - *Use the Installation Assistant*: Click on the "Download Now" button under the "Windows 11 Installation Assistant" section. This tool will guide you through the installation.
   - *Create Installation Media*: Click on "Download Now" under the "Create Windows 11 Installation Media" section. This tool allows you to create a bootable USB drive.
   - *Download ISO File*: Under "Download Windows 11 Disk Image (ISO)", select "Windows 11" and click "Download". Choose your language and click "Confirm".

Step 2: Create a Bootable USB Drive (Optional)

If you downloaded the ISO file and want to create a bootable USB drive, follow these steps:

i. Download and Install the Media Creation Tool
   - Use the tool you downloaded from the Microsoft website to create a bootable USB drive.

ii. Run the Media Creation Tool
   - Follow the prompts to select your USB drive and create the installation media.

Step 3: Install Windows 11

a. Using the Installation Assistant
   - If you are using the Installation Assistant, simply run the tool and follow the on-screen instructions to upgrade your current Windows version to Windows 11.

b. Using the Bootable USB Drive
   - *Insert the USB Drive:* Plug the bootable USB drive into your computer.
   - *Restart Your Computer:* Boot from the USB drive. You may need to enter the BIOS/UEFI setup to change the boot order.
   - *Access the Boot Menu:* Press the appropriate key (often F12, F2, DEL, or ESC) during startup to access the boot menu.
   - *Select the USB Drive:* Choose your USB drive from the boot options.

c. Install from ISO (Clean Install)
   - *Boot from the USB Drive*: Your computer should now boot from the USB drive, starting the Windows 11 installation process.
   - *Follow On-Screen Instructions*: Choose your language, time, and keyboard preferences, and click "Next".
   - *Click "Install Now"*.

- *Enter Product Key*: Enter your Windows 11 product key or choose "I don't have a product key" if upgrading.
- *Select Installation Type*: Choose "Custom: Install Windows only (advanced)" for a clean install.
- *Select the Drive/Partition:* Choose the drive or partition where you want to install Windows 11 and click "Next". The installation process will begin.

Step 4: Complete the Setup

i. Initial Setup:
   - Follow the on-screen instructions to complete the setup process, including setting up your region, language, and keyboard layout.

ii. Connect to the Internet:
   - Connect to your Wi-Fi or wired network.

iii. Sign In:
   - Sign in with your Microsoft account or create a new account.

iv. Configure Settings:
   - Choose your privacy settings and other preferences.

Step 5: Post-Installation

a. Check for Updates:
   - Once Windows 11 is installed, go to Settings > Windows Update and check for any updates to ensure your system is up to date.

b. Reinstall Applications:
   - Reinstall any applications you need and restore your backed-up files.

2. Installing an IDE

Installing Visual Studio Code (VS Code) involves several stages, from downloading the installer to configuring the environment. Below is a detailed guide:

Stage 1: Download the Installer

a. Visit the Official Website
   - Go to the https://code.visualstudio.com/Download.

b. Select Your Operating System
   - Click the download button for your operating system let say on my side is Window OS

Stage 2: Install Visual Studio Code

For Windows:

a. Run the Installer
   - Locate the downloaded file {version}.exe) and double-click it.

b. Follow the Setup Wizard

- Accept the agreement and click "Next".
- Choose the destination folder and click "Next".
- Select additional tasks (e.g., creating a desktop icon, adding to PATH) and click "Next".
- Click "Install" to begin the installation.
- Click "Finish" to complete the installation and launch VS Code.

3. To install Git on a Windows operating system, follow these steps:

Stage 1: Download the Git Installer

a) Visit the Official Git Website
   - Go to the Git website.

b) Download the Installer
   - Click on the "Download" button, which should automatically detect your operating system and provide the appropriate installer. The file will be named something like Git-{version}-64-bit.exe or Git-{version}-32-bit.exe depending on your system architecture.

Stage 2: Run the Git Installer

i. **Locate the Downloaded File**:
   - Find the downloaded installer file (e.g., in your Downloads folder) and double-click it to run the installer.

ii. **Follow the Setup Wizard**:
   - **Step 1**: Click "Next" on the welcome screen.
   - **Step 2**: Read the license agreement and click "Next" if you accept the terms.
   - **Step 3**: Select the destination location for Git installation and click "Next".
   - **Step 4**: Choose the components to install. By default, all necessary components are selected, and you can click "Next".
   - **Step 5**: Select the start menu folder and click "Next".
   - **Step 6**: Adjust the PATH environment (use the recommended option "Git from the command line and also from 3rd-party software") and click "Next".
   - **Step 7**: Choose the default editor used by Git. The default option is Vim, but you can select another editor, such as Notepad++, Visual Studio Code, etc. Click "Next".
   - **Step 8**: Adjust the initial branch name (default is usually fine) and click "Next".
   - **Step 9**: Select the HTTPS transport backend (use the default OpenSSL library) and click "Next".
   - **Step 10**: Configure the line ending conversions (use the recommended "Checkout Windows-style, commit Unix-style line endings") and click "Next".
   - **Step 11**: Choose the terminal emulator (use the default MinTTY) and click "Next".

- **Step 12**: Select extra options such as enabling file system caching and Git Credential Manager. Click "Next".
- **Step 13**: Configure experimental options if desired (typically, leave these unchecked) and click "Install".

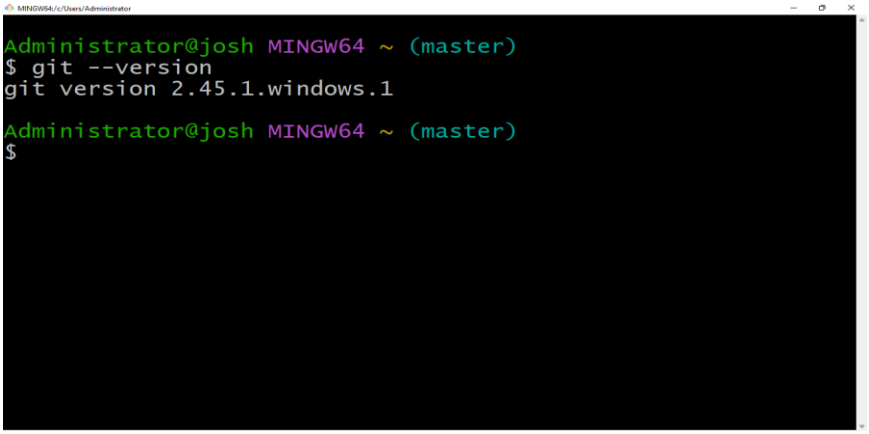
iii. **Complete the Installation**:

- After the installation process completes, click "Finish". Ensure the "Launch Git Bash" option is checked if you want to start using Git right away.

Stage 3: Verify the Installation

1. Open Git Bash
   - If you didn't launch Git Bash during the installation, you can find it by searching for "Git Bash" in the Start menu.
2. Verify Git Installation
   - In the Git Bash terminal, type the following command and press Enter:

git --version



This is the confirmation message for successfully installed Git.

Stage 4: Configure Git

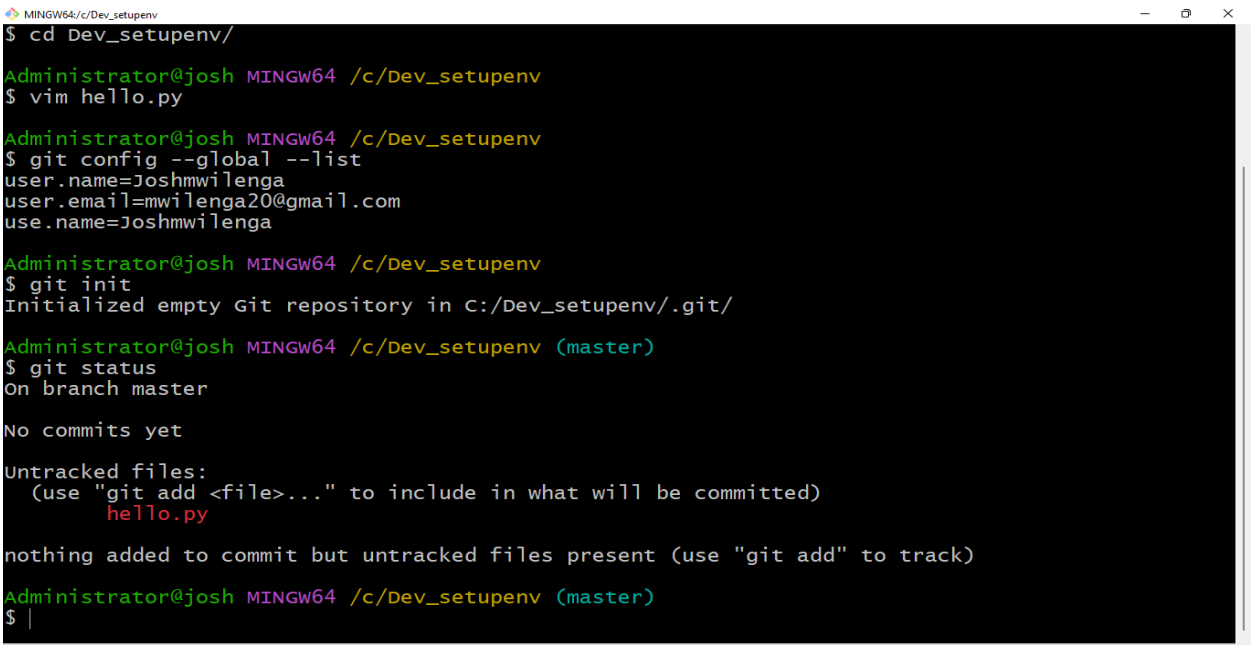
1. **Set Your Username and Email**:
   - Open Git Bash and set your username and email address:

On git bash
git config --global user.name "Joshmwilenga"
git config --global user.email “mwilenga20@gmail.com”

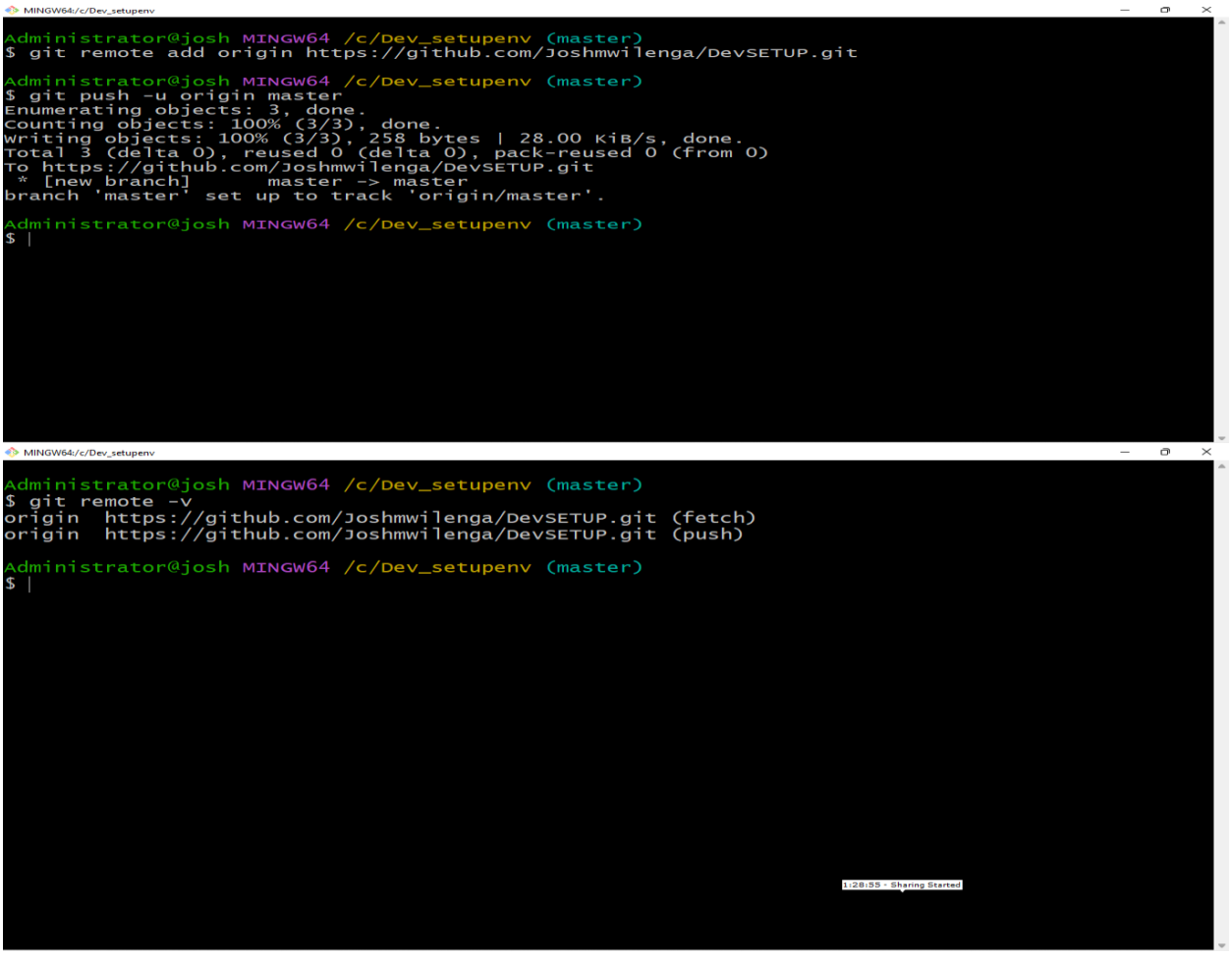
2. **Verify Configuration**:
   - You can check your configuration settings by running:

On git bash
git config –global --list
By following these steps, you should have Git installed and configured on your Windows system, ready for version control tasks.

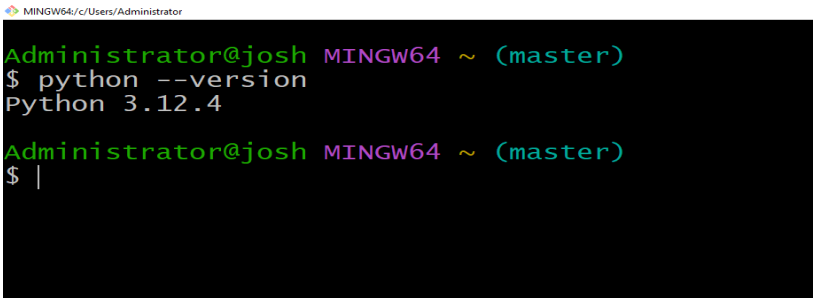
Initializing Git repository on my gi tthub account (https://github.com/Joshmwilenga)


MINGW64:/c/Dev_setupenv
$ cd Dev_setupenv/
Administrator@josh MINGW64 /c/Dev_setupenv
$ vim hello.py
Administrator@josh MINGW64 /c/Dev_setupenv
$ git config --global --list
user.name=Joshmwilenga
user.email=mwilenga20@gmail.com
use.name=Joshmwilenga
Administrator@josh MINGW64 /c/Dev_setupenv
$ git init
Initialized empty Git repository in C:/Dev_setupenv/.git/
Administrator@josh MINGW64 /c/Dev_setupenv (master)
$ git status
On branch master
No commits yet
Untracked files:
(use "git add <file>..." to include in what will be committed)
hello.py
nothing added to commit but untracked files present (use "git add" to track)
Administrator@josh MINGW64 /c/Dev_setupenv (master)
$


MINGW64:/c/Dev_setupenv
Administrator@josh MINGW64 /c/Dev_setupenv (master)
$ git add hello.py
warning: in the working copy of 'hello.py', LF will be replaced by CRLF the next time Git touches it
Administrator@josh MINGW64 /c/Dev_setupenv (master)
$ git status
On branch master
No commits yet
Changes to be committed:
(use "git rm --cached <file>..." to unstage)
new file: hello.py
Administrator@josh MINGW64 /c/Dev_setupenv (master)
$ git commit -m "created python file"
[master (root-commit) 410bc4b] created python file
1 file changed, 2 insertions(+)
create mode 100644 hello.py
Administrator@josh MINGW64 /c/Dev_setupenv (master)
$



3. Python installation confirmation



4. Pip installation and confirmation