PLP ASSIGNMENT

**Windows 11 installation**

**Step 1: Prepare the system for installation**

1. Ensure all important data is backed up to an external drive or cloud storage.
2. Verify that the computer meets the minimum hardware requirements for Windows 11.
3. Download and install the latest drivers for your hardware components (graphics card, chipset, network adapter, etc.).

**Step 2: Obtain Windows 11 Installation Media**

1. Visit the official Microsoft website or use the Media Creation Tool to download the Windows 11 installation ISO file.
2. Use software like Rufus or the Media Creation Tool to create a bootable USB drive with the Windows 11 ISO.

**Step 3: Start the Installation**

1. Plug in the bootable USB drive containing the Windows 11 installation files.
2. Restart your computer and enter the BIOS/UEFI firmware settings.
3. Set the USB drive as the primary boot device in BIOS/UEFI settings.
4. Save the changes and exit BIOS/UEFI settings. Your computer will restart and boot from the USB drive.

**Step 4: Install Windows 11**

1. Follow the on-screen instructions to begin the Windows 11 installation process.
2. Choose your preferred language, time, and currency format, and keyboard or input method.
3. Enter your Windows 11 product key if prompted. You can also choose to activate Windows later.
4. Read and accept the license terms to proceed with the installation.
5. Select 'Custom: Install Windows only (advanced)' to perform a clean installation or 'Upgrade: Install Windows and keep files, settings, and applications' if you're upgrading from a previous version of Windows.
6. Choose the disk partition where you want to install Windows 11. You can create, delete, format, or resize partitions as needed.
7. Click 'Next' to start the installation. Windows will copy files, install features, and update settings.
8. Once the installation is complete, your computer will restart.
9. Restore the back-up data to the newly installed Windows 11.

**Title: Step-by-Step Guide to Installing Visual Studio Code**

**Step 1: Download Visual Studio Code**

1. Go to the Visual Studio Code official website at <https://code.visualstudio.com/>.
2. Click on the "Download" button. The website will automatically detect your operating system and provide the appropriate download link.

**Step 2: Install Visual Studio Code**

* + Once the download completes, run the installer (.exe file).
  + Follow the setup wizard instructions. You can usually accept the default settings unless you need to customize the installation location.
  + Click "Finish" to complete the installation. VS Code will launch automatically after installation.

**Step 3: Configure Visual Studio Code**

* + Open VS Code, navigate to the Extensions view (Ctrl+Shift+X), and search for extensions you need (e.g., for programming languages, themes, or tools).
  + Modify settings via the settings (Ctrl+,) or settings.json file to tailor VS Code to your preferences (e.g., font size, key bindings).

**Step 4: Verify Installation**

1. Open Visual Studio Code from your desktop or applications menu.
2. Create a new file, type some text, and save it to ensure VS Code is functioning correctly.
3. Verify that installed extensions are working properly and appear in the Extensions view.

**Title: Step-by-Step Guide to Installing Git**

**Step 1: Download Git**

1. Go to the Git official website: <https://git-scm.com/>
2. Click on the "Download" link. The website will automatically detect your operating system and provide the appropriate download link.
   * Once the download completes, run the Git installer (.exe file).
   * Follow the setup wizard instructions. You can usually accept the default settings unless you need to customize the installation location or components.
   * Select the option "Use Git from the Windows Command Prompt" to add Git to your PATH. This allows Git to be used from the command line.
   * Select the option "Use the OpenSSL library" for HTTPS connections.
   * Choose the option "Checkout Windows-style, commit Unix-style line endings" for consistency in line endings.

**Step 3: Configure Git**

1. **Set Up User Information:**
   * Open a terminal or command prompt.
   * Set your name: git config --global user.name "Your Name"
   * Set your email address: git config --global user.email "your.email@example.com"
2. **Verify Configuration:**
   * Check your Git configuration: git config --list

**Step 4: Verify Installation**

1. **Verify Git Installation:**
   * Open a terminal or command prompt.
   * Type git --version and press Enter. You should see the installed Git version.

**Title: Step-by-Step Guide to Installing Python**

**Step 1: Download Python**

1. Go to the Python official website: <https://www.python.org/>
2. Click on the "Downloads" tab. The website will automatically suggest the latest version for your operating system.

**Step 2: Install Python**

* + **Run the Installer:**
    - Once the download completes, run the Python installer (.exe file).
  + **Setup Wizard:**
    - Check the box "Add Python to PATH" to allow Python to be run from the command line.
    - Customize the installation by selecting optional features if needed.
    - Choose the installation location or accept the default.
    - Click "Install" to start the installation process.
  + **Verify Installation:**
    - Open Command Prompt and type python --version to verify the installation. You should see the installed Python version

**Step 3: Configure Python Environment (Optional)**

* + Install virtualenv if not already installed: pip install virtualenv
  + Create a new virtual environment: python -m venv myenv
  + Activate the virtual environment:
    - Windows: myenv\Scripts\activate
  + Install packages and manage dependencies within the virtual environment.

**Step 4: Verify Python Installation**

* + Type python --version press Enter. You should see the installed Python version.

**Title: Step-by-Step Guide to Installing MySQL**

**Step 1: Download MySQL**

1. Go to the MySQL official website: <https://dev.mysql.com/downloads/mysql/>
2. **Download the Installer:**
   * Select the appropriate MySQL Community Server version for your operating system.
   * Click on the "Download" button to proceed with the download.

**Step 2: Install MySQL**

* + **Run the Installer:**
    - Once the download completes, run the MySQL installer (.msi file).
  + **Setup Wizard:**
    - Choose "Custom" setup type for more control, or "Server Only" for a basic installation.
    - Select the installation directory or use the default.
    - Choose the configuration type: "Standalone MySQL Server / Classic MySQL Replication" is recommended for most users.
    - Set up MySQL server as a Windows service: Select "Server data files" location, MySQL Root password and Windows Service Name, and click "Next."