

How to Install Windows 11

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Steps to Install Windows 11

1. Check System Requirements

After ensuring the PC meets the following minimum requirements;

- 1 GHz CPU with 2 cores
- 4 GB RAM
- 64 GB storage
- UEFI firmware with Secure Boot
- TPM 2.0
- DirectX 12 compatible graphics
- HD display
- Internet connection

2. Backup Your Data

Back up important files to an external drive or cloud storage.

3. Download Installation Media

Use the Media Creation Tool software like Rufus to create a bootable USB drive or by downloading an ISO file.

4. Install Windows 11

- **Upgrade:** Running the Installation Assistant on the current Windows 10.
- **Clean Install:**

- Inserting the USB drive, restarting the PC, and enter BIOS/UEFI to boot from USB.
- Following the setup prompts: select language, time, and keyboard preferences, then clicking *Install now*.
- Enter the product key or skipping to activate later.
- Accepting the license terms.
- Choosing *Custom: Install Windows only (advanced)* for a clean install.
- Selecting the partition to install Windows 11 and click *Next*.

5. Setup and Updates

Completing the initial setup: configuring user accounts, privacy settings, and connect to Wi-Fi.[12pt] Checking for updates: Going to *Settings > Update & Security > Windows Update* and install all updates.

6. Install Essential Software

Reinstalling essential applications and restore files from the backup.
How to Install Visual Studio Code on Windows 11

Steps on Installing Visual Studio Code on Windows 11

1. Download the Installer

Click the *Windows* download link to download the installer.

2. Run the Installer

- Locate the downloaded installer file `VSCoDeSetup-x64.exe`.
- Double-clicking the installer to run it.
- Prompted by the User Account Control (UAC), clicking *Yes* to allow the installer to make changes to the device.

3. Following the Installation Wizard

- Reading and accepting the license agreement, then clicking *Next*.
- Choosing the destination folder for the installation then click *Next*.
- Selecting additional tasks, such as creating a desktop icon, adding *Open with Code* actions to the context menu, and adding Visual Studio Code to the PATH.

- Click *Next*, then click *Install* to begin the installation.

4. Completing the Installation

- Once the installation is complete, click *Finish*.

Setting Up Git on The PC

Steps of Setting Up Git on the PC

1. Download Git

Visiting the Git downloads page and downloading the appropriate version for the operating system.

2. Install Git

- Run the downloaded installer (.exe file).
- Following the installation wizard, leaving the default settings as recommended.
- Optionally, enable *Git Bash* and *Git GUI* context menu options.

3. Verify the Installation

Open a terminal or command prompt and type the following command:

```
git --version
```

4. Configure Git

Setting up my username and email address, which will be associated with my commits:

```
git config --global user.name "Chard Odhiambo"
git config --global user.email "chardodhiambo@gmail.com"
```

5. Create and Clone Repositories

- Creating a new repository:

```
mkdir my-repo
cd my-repo
git init
```

- Cloning an existing repository:

```
git clone git@github.com:Chard Odhiambo/repo.git
```

How to Install Python on Windows 11

Steps of Installing Python on Windows 11

1. Download the Installer

Going to the download page and click the *Download Python 3.x.x* button to download the latest version of Python.

2. Run the Installer

- Locate the downloaded installer file.
- Double-click the installer to run it.

3. Customize the Installation

- Checking the box that says *Add Python 3.x to PATH* on the first screen.
- clicking *Install Now* to install with default settings.

4. Install Python

- Click *Install* to begin the installation.
- If prompted by User Account Control (UAC), click *Yes* to allow the installer to make changes to your device.

5. Installing pip

- Pip, the Python package installer, is included by default. Verify pip installation:

```
pip --version
```

- If it returns the version of pip, the installation is successful.

8. Install Virtual Environment (Optional)

To manage project dependencies, you may want to use virtual environments:

```
pip install virtualenv
```

9. Create and Activate a Virtual Environment (Optional)

- Create a virtual environment:

```
python -m venv myenv
```

- Activate the virtual environment:

- On the Windows 11:

```
myenv\Scripts\activate
```

Reflection on Software Setup Challenges on Windows 11

Challenges Faced

1. **Compatibility Issues:** Ensuring that software versions and system requirements align correctly with Windows 11 was challenging, especially with older software versions that may not fully support the new operating system.
2. **Installation Errors:** Encountering errors during installations, such as incomplete downloads, permission issues, or conflicting software, disrupts the set-up process and requires troubleshooting.
3. **Configuration Complexity:** Configuring settings like environment variables, PATH configurations, and optional features during installations can be complex and confusing, particularly for users unfamiliar with these technical aspects.
4. **Documentation Gaps:** Depending solely on online documentation sometimes leads to misunderstandings or incomplete information, particularly when troubleshooting specific issues not covered in standard guides.

Strategies Employed to Overcome Challenges

1. **Thorough Research and Preparation:** Prior to installation, comprehensive research on system requirements and software compatibility helps anticipate potential issues and ensures a smoother set-up process.
2. **Backup and Restore Points:** Creating system restore points and backing up critical data before installations provides a safety net in case of installation errors or system instability.
3. **Step-by-Step Guides:** Following detailed, step-by-step installation guides or official documentation from software developers ensures adherence to recommended procedures and minimizes configuration errors.

4. **Troubleshooting and Problem-Solving:** When encountering errors, using built-in troubleshooting tools like Windows Event Viewer or searching for error messages online helps identify and resolve issues promptly.
5. **Engagement with Community:** Seeking assistance from online forums, communities, or experienced users for specific issues not covered by standard documentation provides valuable insights and solutions.
6. **Validation and Testing:** After installation, validating software functionality through testing ensures that installed tools and features operate correctly within the Windows 11 environment.