

# OS-Lab-1

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Section: 4B

## 1. UBUNTU INSTALLATION:

Ubuntu in a dual-boot setup alongside Windows.

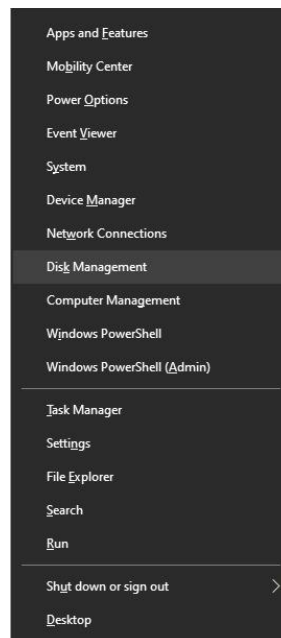
### Step 1: Prepare for Installation

#### 1. Backup Your Data

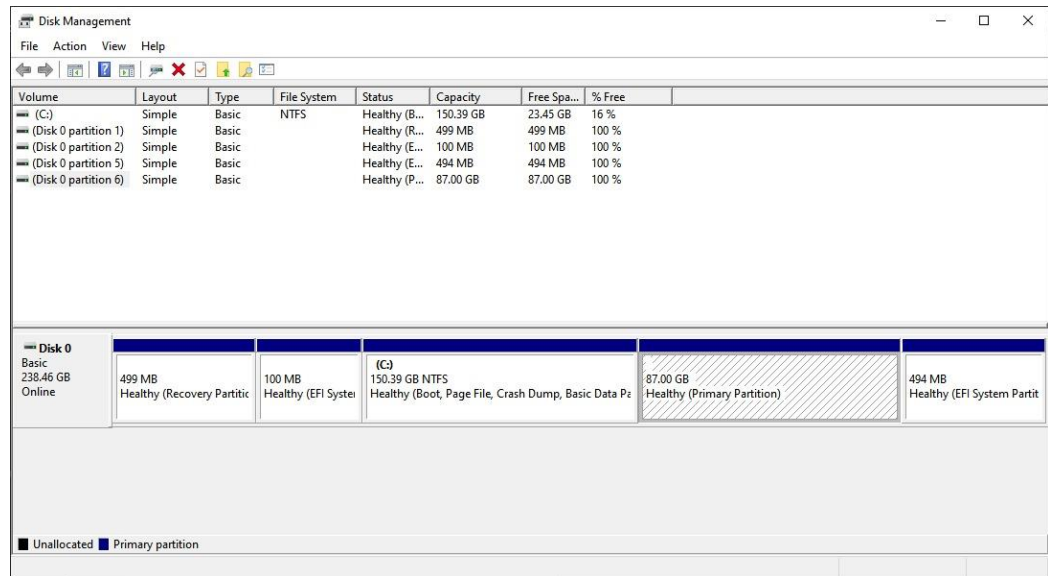
- **Important:** As I have already both **Windows and Arch** in Dual, I created a backup for both on my cloud then first erased my arch Linux from disk now going for UBUNTU installation.

#### 2. Create Free Space for Ubuntu

- Booted into Windows.
- Opened **Disk Management**:
  - By Pressing Win + X and select **Disk Management**.



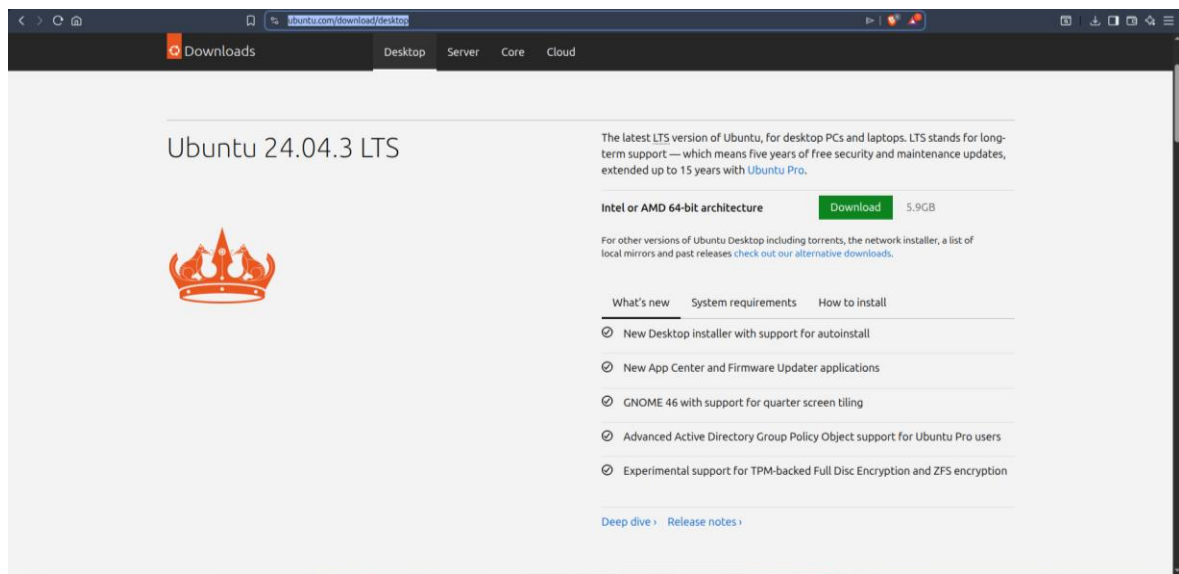
- Shrunk a partition to free up space for Ubuntu by Right-click the partition, choosing **Shrink Volume**, and allocated space almost 87Gb.



- Leave the space as **unallocated**.

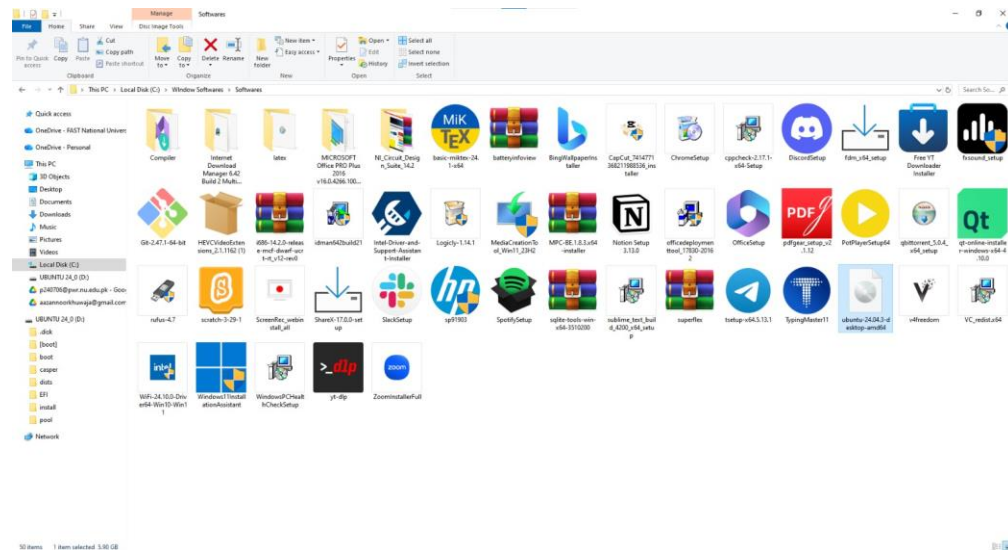
### 3. Download Ubuntu

- Then I Downloaded Ubuntu From [Ubuntu's website](https://ubuntu.com/download/desktop) and downloaded the ISO file.

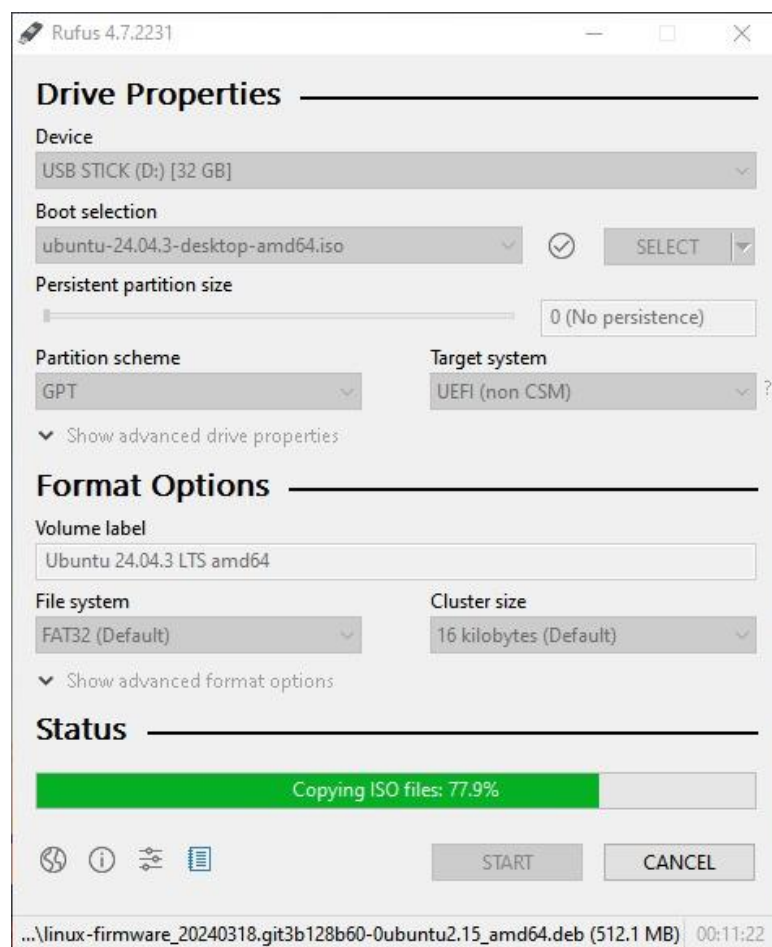


### 4. Create a Bootable USB Drive

- Used a tool like **Rufus** (Windows) for this:
  1. Insert a USB drive (at least 8 GB).
  2. Open Rufus, select the Ubuntu ISO file, and create the bootable drive.



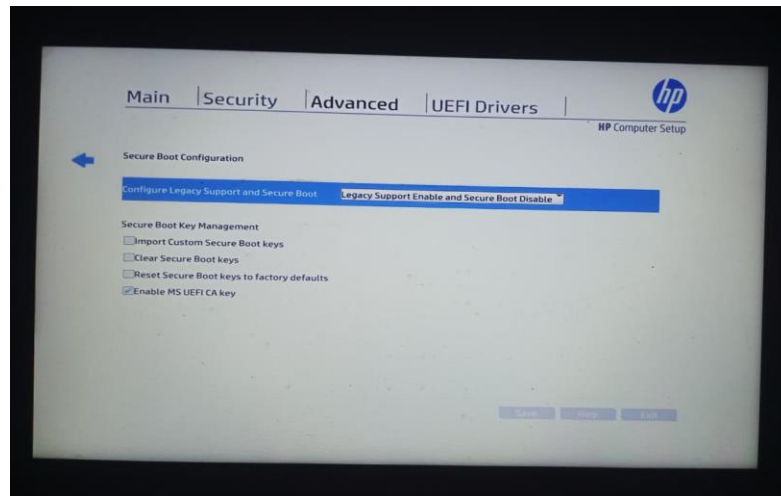
- And here it's your Choice What Partition method you Choose Either MBR or GPT but I Chooosed GPT Because my partitioning scheme is GPT.



- Then just started and waited!

## Step 2: Disable Secure Boot (If Necessary)

- Restart your computer and enter the BIOS/UEFI setup (usually by pressing F2, F12, Del, or Esc during boot).
- Locate **Secure Boot** in the BIOS settings and disable it.



- Saved changes and exited.

## Step 3: Boot from USB

1. Inserted the bootable USB drive into PC.
2. Restarted PC and entered into the **boot menu** (usually by pressing F12, F9, or a similar key).
3. Selected USB drive as the boot device.

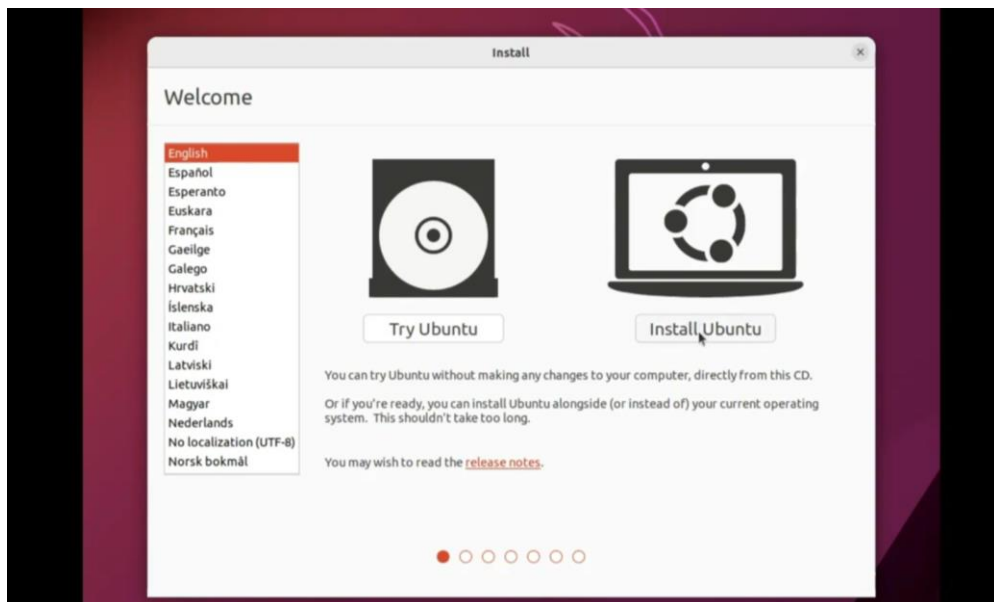
## Step 4: Install Ubuntu

1. **Choose "Try Ubuntu":**
  - From the GRUB menu, I selected **Try Ubuntu** to boot into the live environment.



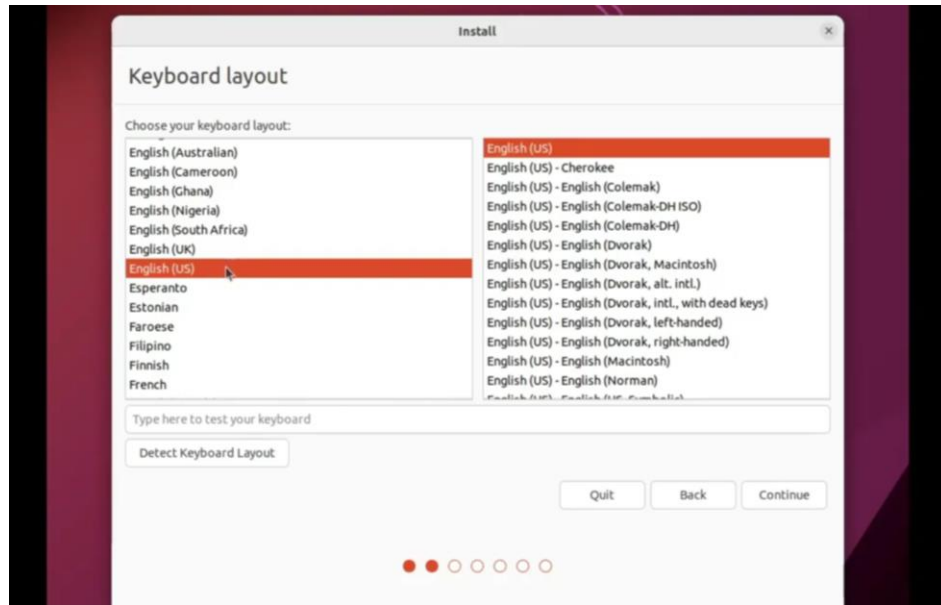
## 2. Start the Installer:

- Double-click the **Install Ubuntu** icon on the desktop.

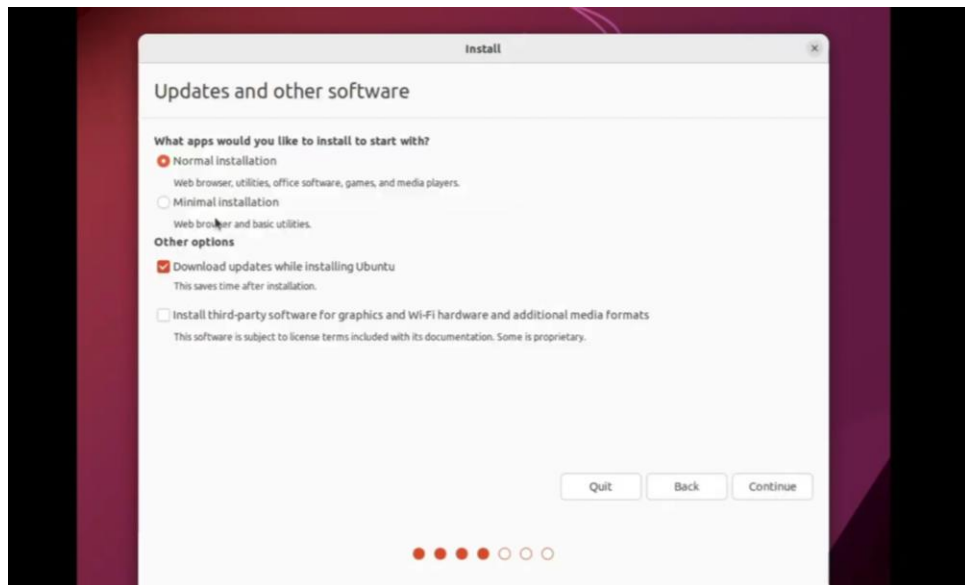


## 3. Installation Setup:

- **Keyboard Layout:** Here I Selected my keyboard layout and click **Continue**.



- **Updates and Software:** Choose **Normal Installation** and check options to download updates and install third-party software.

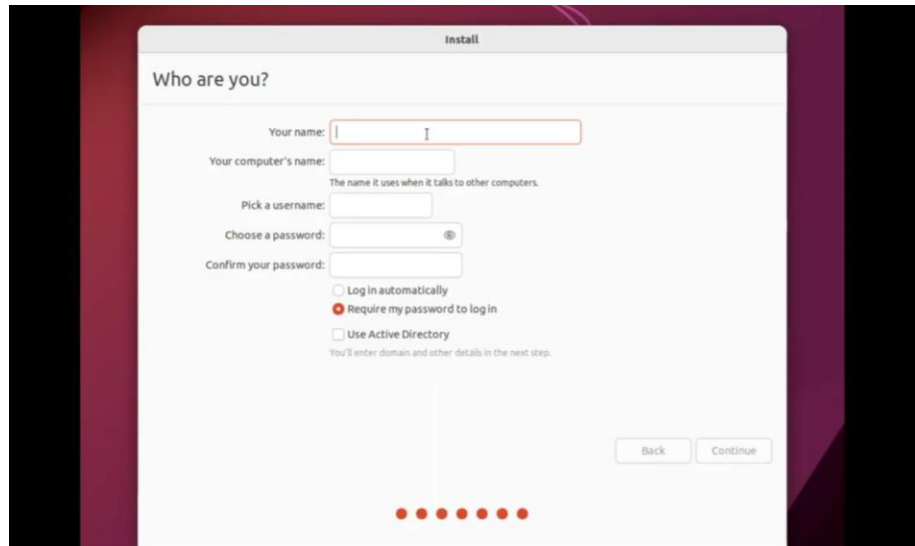


#### 4. Partitioning:

- Here Simply I choosed Install **Ubuntu Alongside Windows Boot Manager**. This will auto detect an unallocated space of 87gb from my Disk and will create a home and Efi partition itself and will auto arrange grub so later we don't need to worry.

#### 5. User Setup:

- Here I Inserted username, password, and computer name.



## 6. Install Ubuntu:

- Reviewed changes and then clicked **Install Now**.

## Step 5: Finalize and Boot

1. At end I Removed the USB drive when process completed and restarted PC.
2. Entered in GRUB menu at boot, allowing me to choose between Ubuntu and Windows.

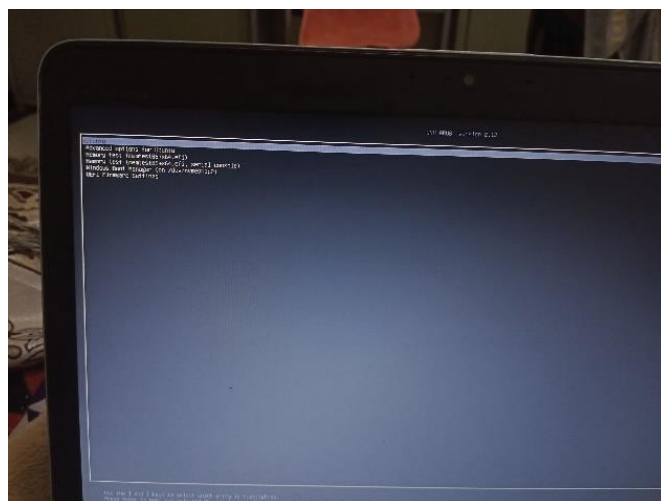


Figure 12 Dual Boot

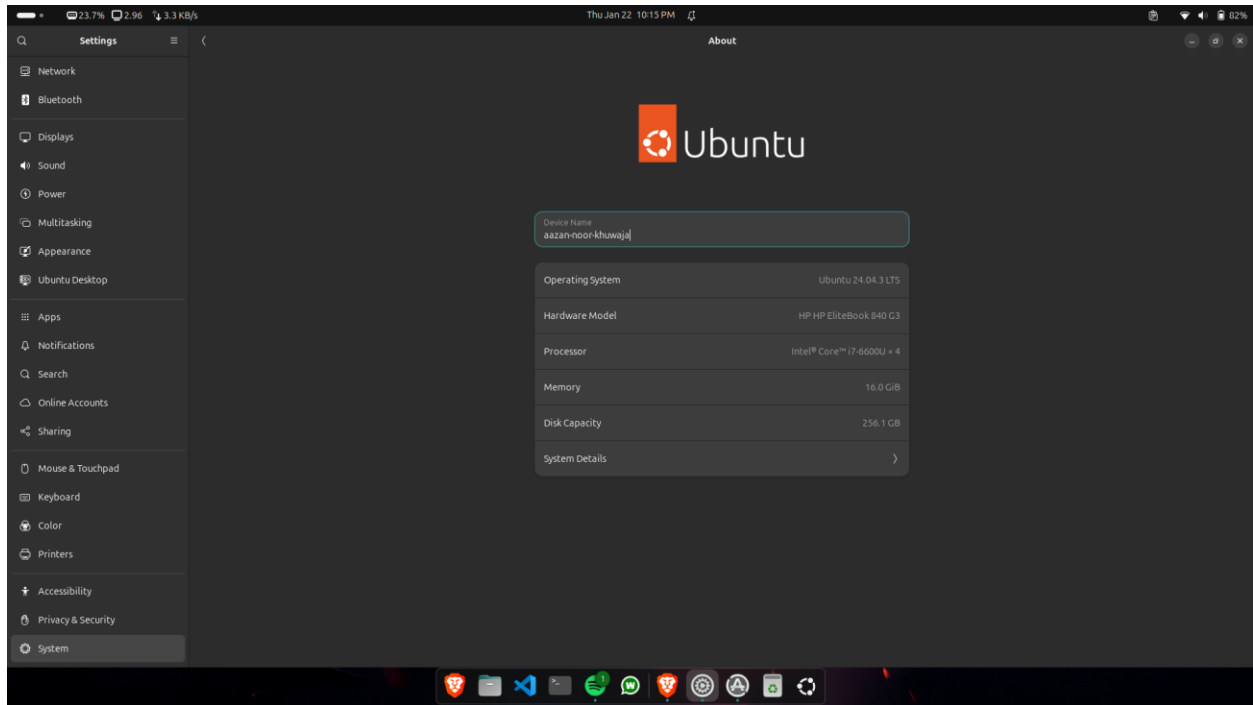


Figure 1 Ubuntu Information

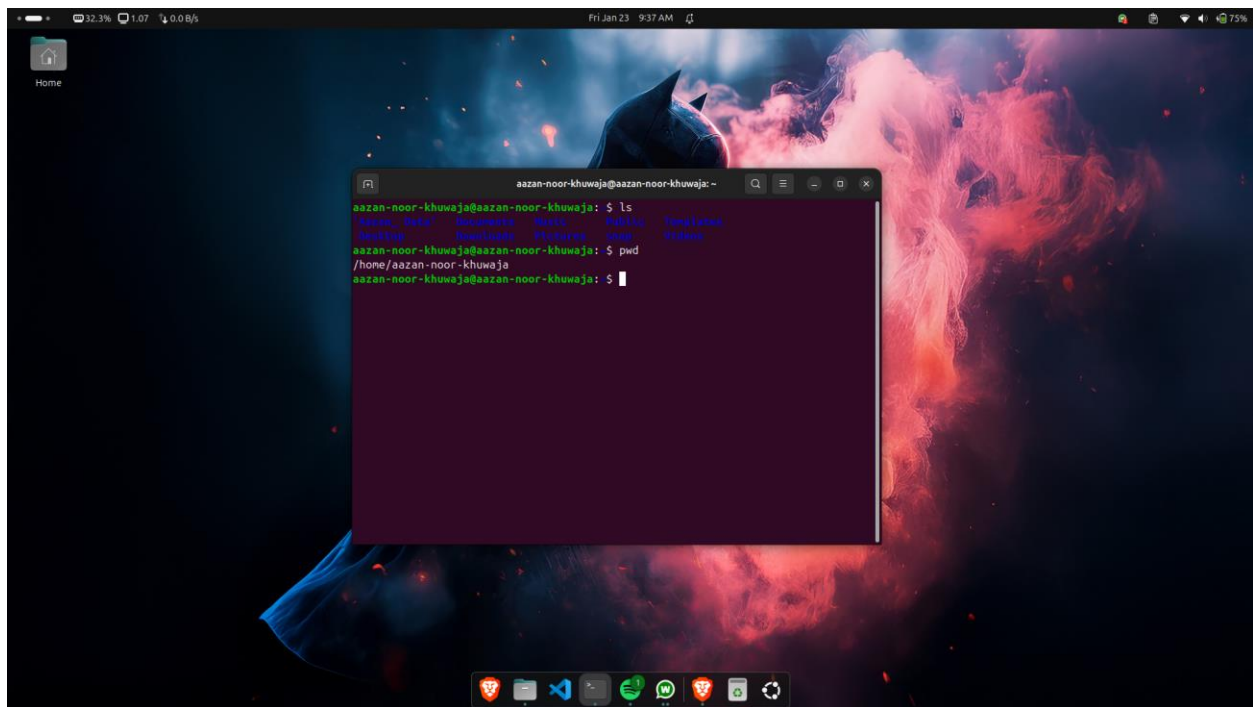


Figure 14 Terminal



