**Name – Joshoua Simon**

**Class – LYIT (Core)**

**Enrollment Number – MITU20BTIT0030**

**Roll No – 2205011**

**Creating an Ubuntu virtual machine (VM) in VirtualBox involves several steps. Here's a step-by-step guide to help you set up an Ubuntu instance:**

**Step 1: Install VirtualBox**

If you haven't already installed VirtualBox, download and install it from the official VirtualBox website (https://www.virtualbox.org/).

**Step 2: Download Ubuntu ISO**

Download the Ubuntu ISO image that you want to use for your virtual machine from the official Ubuntu website (https://ubuntu.com/download).

**Step 3: Launch VirtualBox**

Open VirtualBox after installation.

**Step 4: Create a New Virtual Machine**

Click on the "New" button in the VirtualBox Manager window to create a new VM.

Enter a name for your VM, such as "Ubuntu."

Select the appropriate Type and Version. For Ubuntu, choose "Linux" and the version that matches your ISO (e.g., "Ubuntu (64-bit)" if you downloaded a 64-bit ISO).

Click "Next."

**Step 5: Allocate Memory (RAM)**

Choose the amount of RAM to allocate to your virtual machine. Ubuntu typically requires at least 2GB of RAM for smooth performance, but you can allocate more if your system has enough resources.

Click "Next."

**Step 6: Create a Virtual Hard Disk**

Select "Create a virtual hard disk now" and click "Create."

Choose the VDI (VirtualBox Disk Image) format and click "Next."

Select the storage type. "Dynamically allocated" is recommended because it allows the virtual hard disk to grow as needed.

Specify the size of the virtual hard disk. At least 10-20GB is recommended for a basic Ubuntu installation.

Click "Create."

**Step 7: Configure VM Settings**

In the VirtualBox Manager, select your newly created Ubuntu VM and click "Settings."

Under the "System" tab, go to the "Processor" tab and allocate the number of CPU cores you want to assign to the VM.

Under the "Display" tab, allocate video memory and enable "3D acceleration" if desired.

Under the "Storage" tab, click on the empty optical drive, then click the small disk icon next to "Controller: IDE" and select the Ubuntu ISO file you downloaded earlier.

Click "OK" to save your settings.

**Step 8: Install Ubuntu**

Start your Ubuntu VM by selecting it in the VirtualBox Manager and clicking the "Start" button.

The Ubuntu installation process should begin. Follow the on-screen instructions to install Ubuntu on your virtual machine.

During the installation, you'll be asked to create a user account and set a password.

**Step 9: Install VirtualBox Guest Additions (Optional but recommended)**

After Ubuntu is installed, it's a good idea to install VirtualBox Guest Additions for better integration between your host and guest systems. To do this:

**Start your Ubuntu VM.**

In the VirtualBox menu, go to "Devices" > "Insert Guest Additions CD image..."

Follow the on-screen instructions to install the Guest Additions. You may need to restart the VM.

