## Linux Intro:

Linux is a free and open-source operating system that is widely used in servers, supercomputers, and mobile devices. It is based on the Unix operating system.

## Linux versions:

Linux distributions come in different flavors, including Ubuntu, Debian, CentOS, Fedora, and many others. These distributions typically come with a package manager, which allows users to easily install and update software from a central repository. The Linux community is very active and provides extensive support and resources for users and developers.

**The most popular Linux distributions**: -

https://en.wikipedia.org/wiki/List_of_Linux_distributions

**Ubuntu**: Ubuntu is one of the most popular Linux distributions and is designed to be easy to use and install. It comes with a graphical interface and a large repository of software packages.

**Debian:** Debian is a stable and reliable distribution that is popular among developers and system administrators. It comes with a wide range of software packages and is known for its strict adherence to open-source principles.

**CentOS**: CentOS is a free and open-source distribution that is based on Red Hat Enterprise Linux. It is popular among businesses and is known for its stability and security.

**Fedora:** Fedora is a community-driven distribution that is known for being on the cutting edge of technology. It is popular among developers and enthusiasts and is often used as a testbed for new features.

**Red Hat Enterprise Linux**: Red Hat Enterprise Linux is a commercial distribution that is popular among businesses and enterprises. It is known for its stability, security, and support.

**Arch Linux:** Arch Linux is a lightweight and customizable distribution that is popular among advanced users. It is known for its minimalist approach and its rolling-release model, which provides frequent updates.

**Mint:** Mint is a user-friendly distribution that is designed to be easy to use and install. It comes with a variety of software packages and is known for its polished interface.

## create a Linux server in local desktop/laptop: -

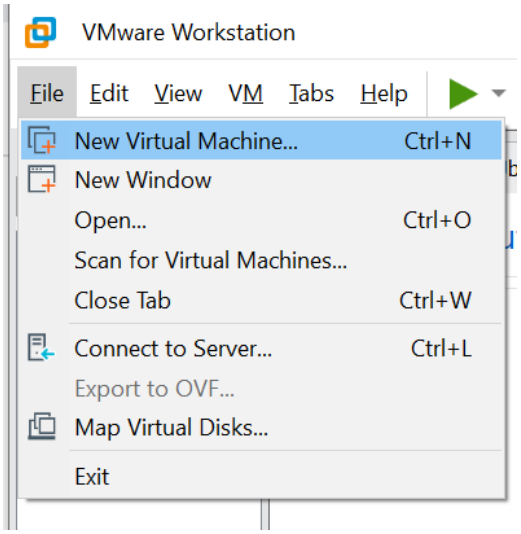
- Download and install VMware Workstation Player or VMware Workstation Pro on your local desktop or laptop.

  https://www.vmware.com/in/products/workstation-pro/workstation-pro-evaluation.html

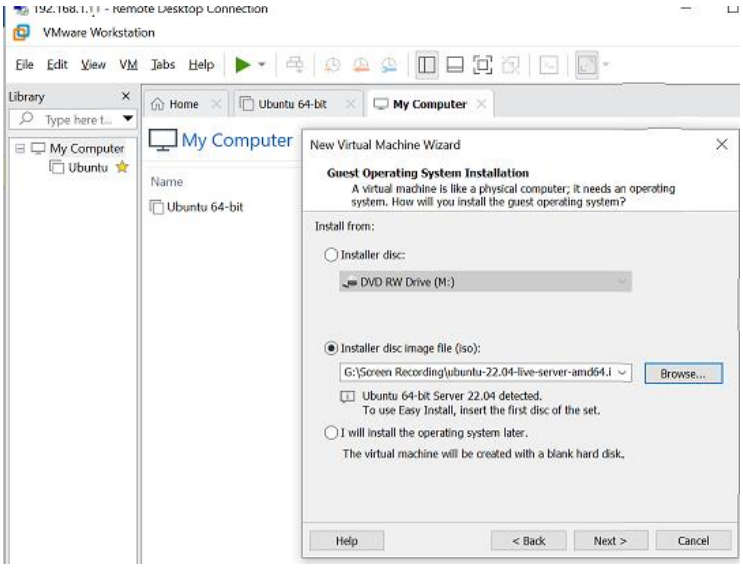

- Download the ISO image for the Linux distribution that you want to use for your server.

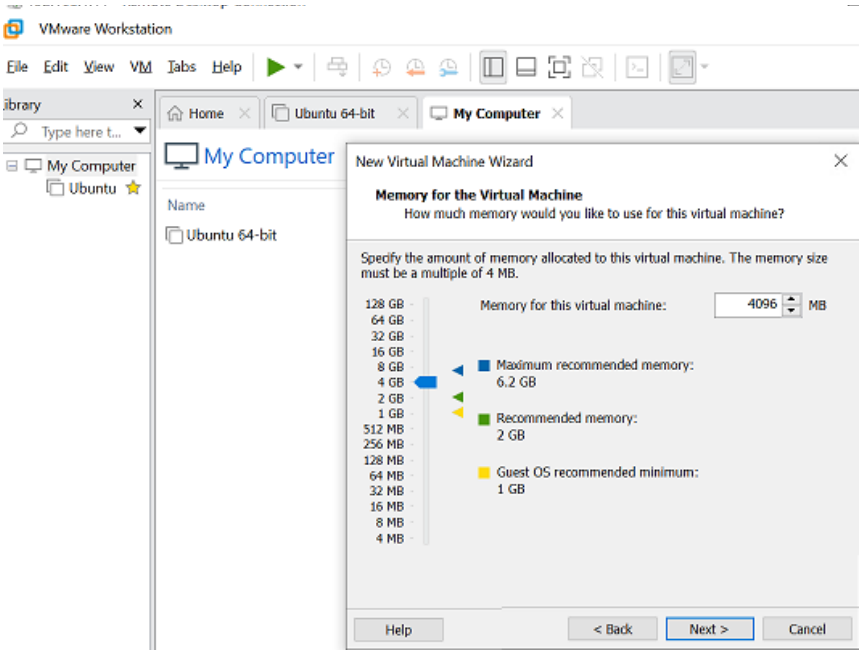
https://ubuntu.com/download/server

- Open VMware Workstation and click on "Create a New Virtual Machine" to start the New Virtual Machine Wizard.

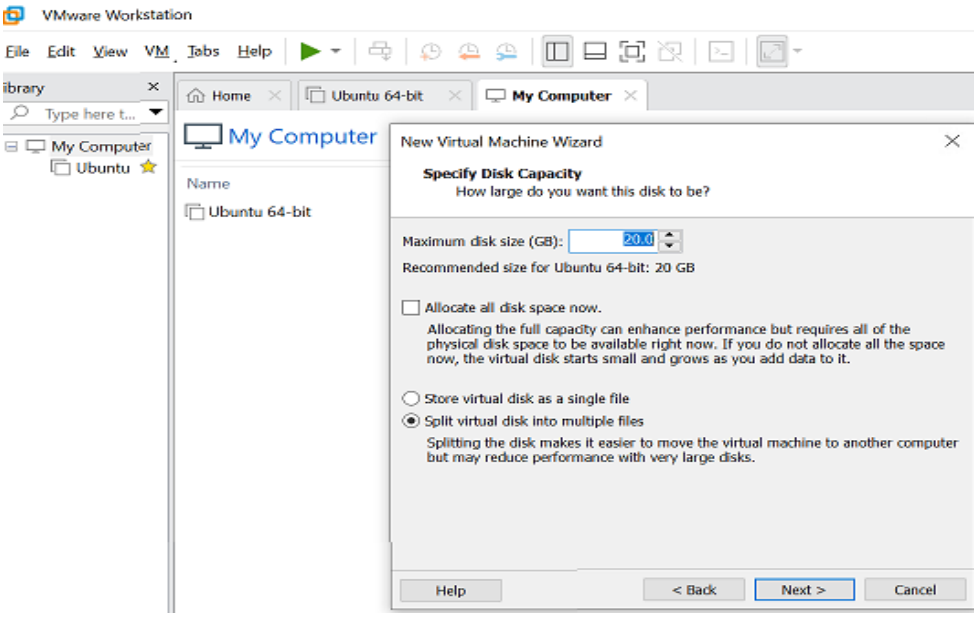


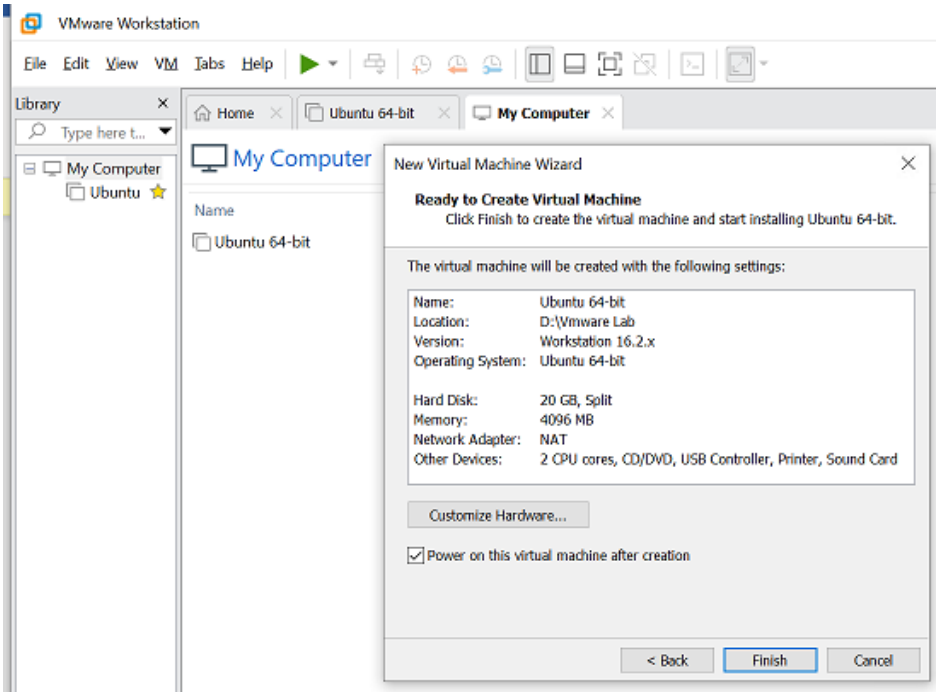

- Choose "Typical" as the configuration type and click "Next".
- Select the location of the Ubuntu ISO image that you downloaded and click "Next".



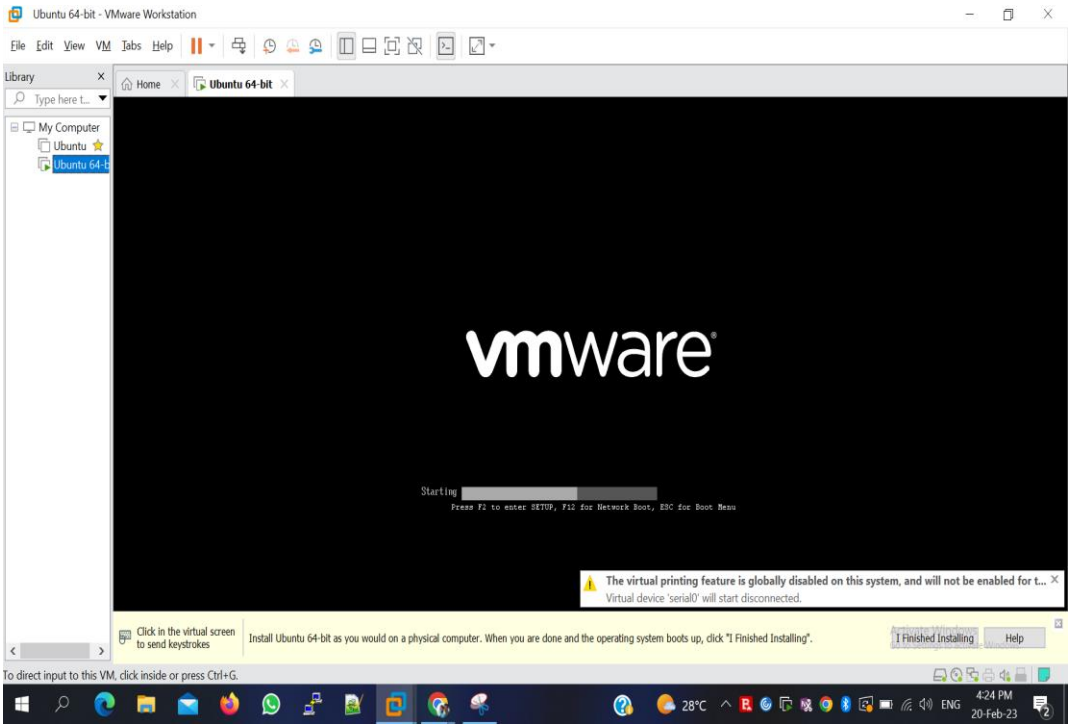



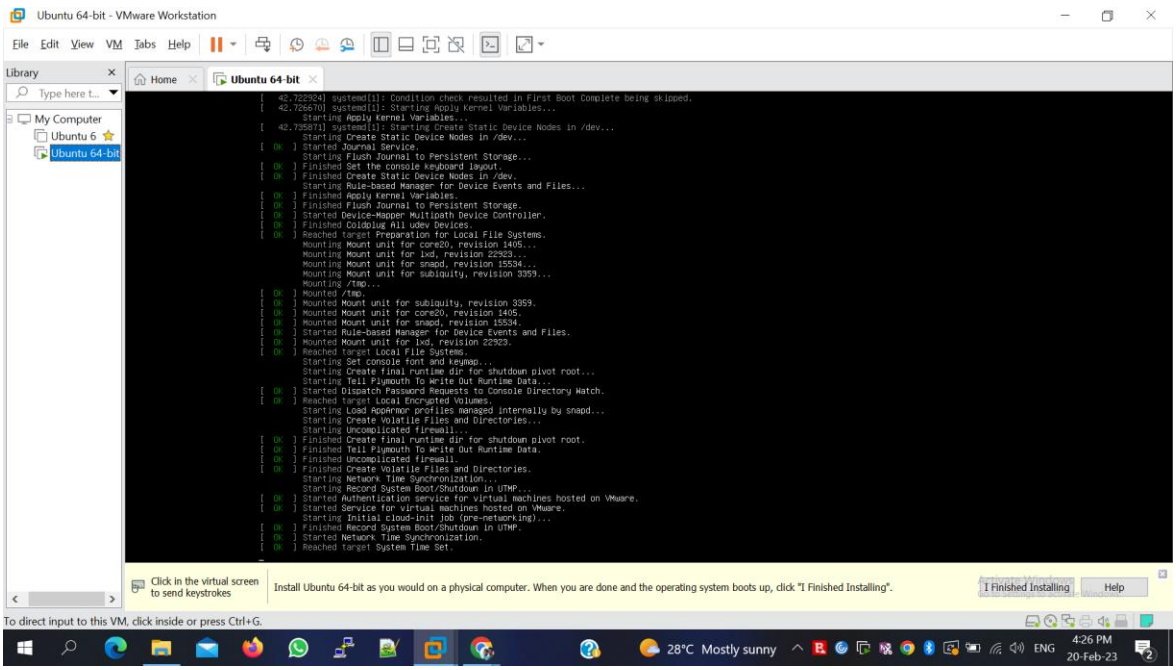

- Choose the guest operating system as Linux and the version as the specific distribution that you downloaded. If your distribution is not listed, you can choose "Other Linux" and specify the version manually. Click "Next".
- Choose a name and location for the virtual machine files and click "Next".
- Specify the disk capacity and choose either "Store virtual disk as a single file" or "Split virtual disk into multiple files". Click "Next".



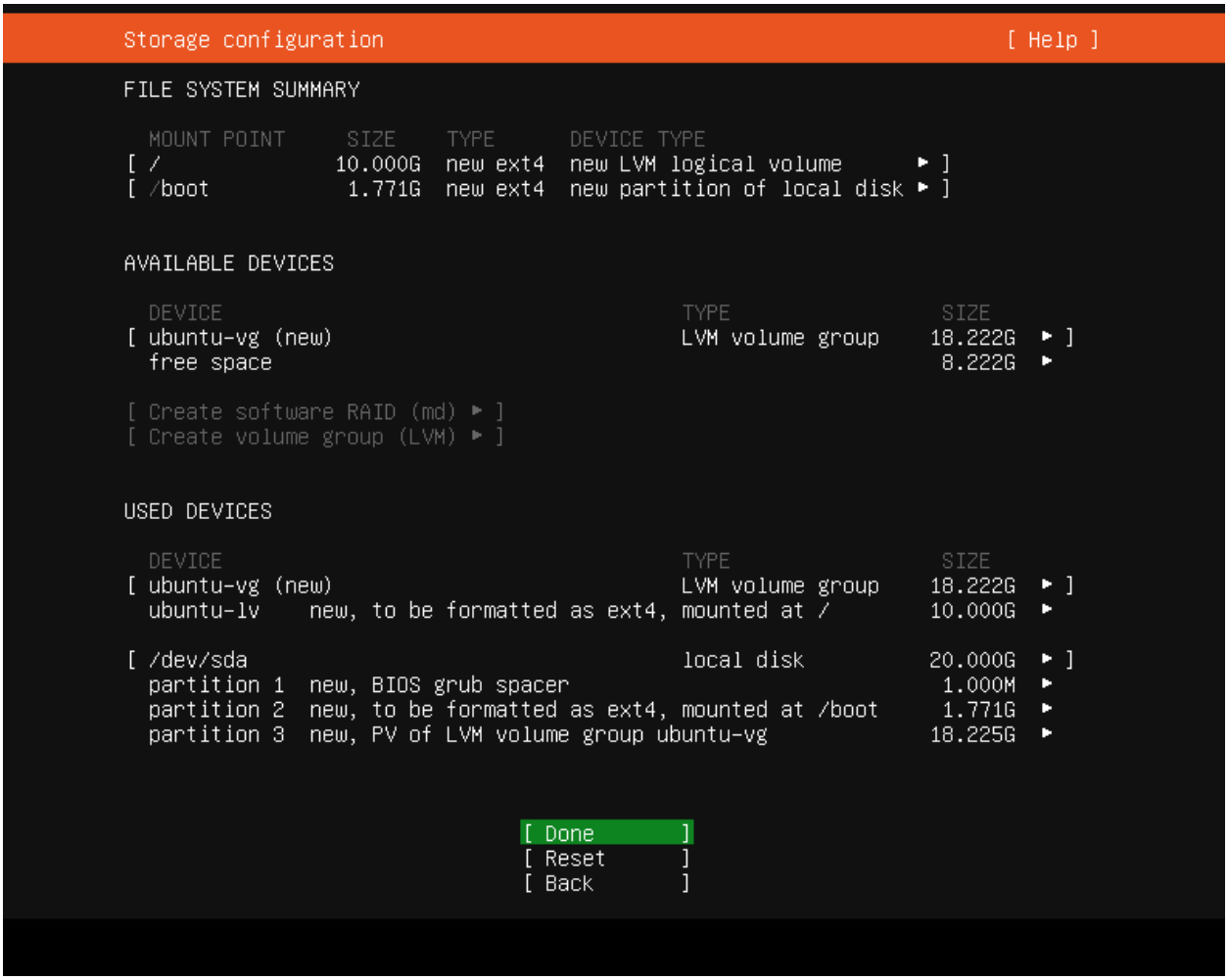




- Review the settings and click "Finish" to create the virtual machine.

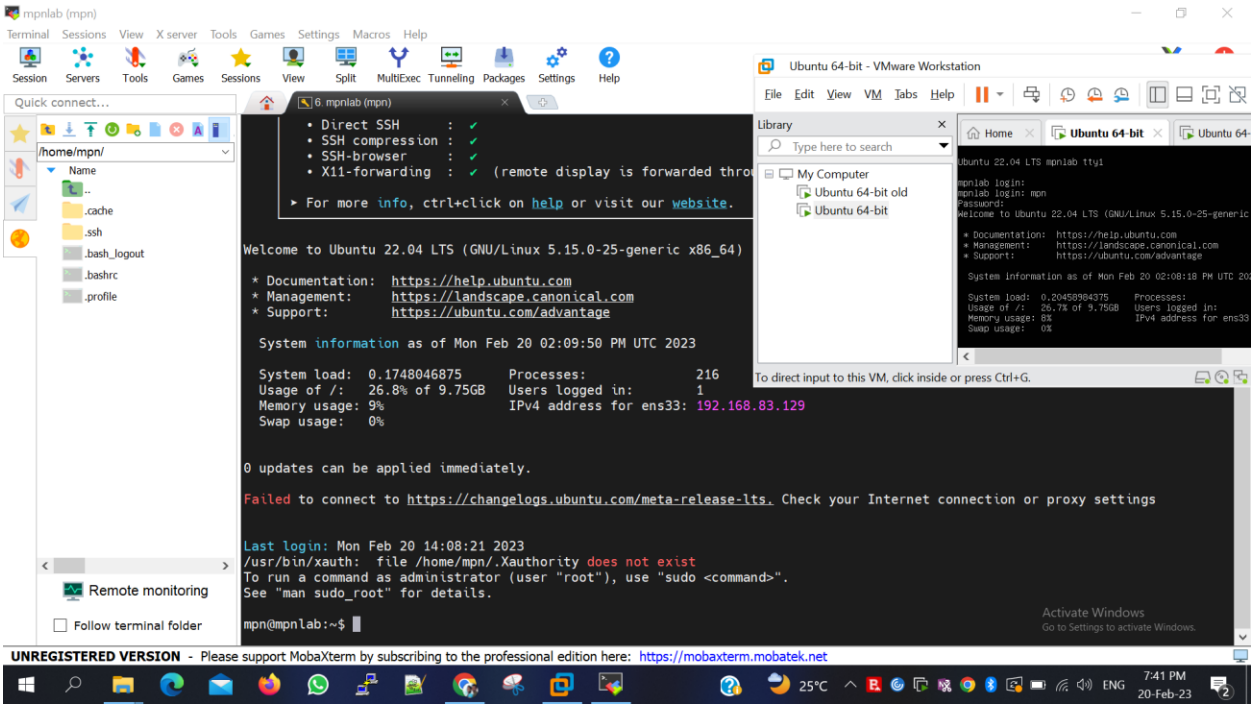



- Power on the virtual machine and follow the installation wizard for your chosen Linux distribution. Choose the appropriate options, such as the language, time zone, partitioning, and root password.



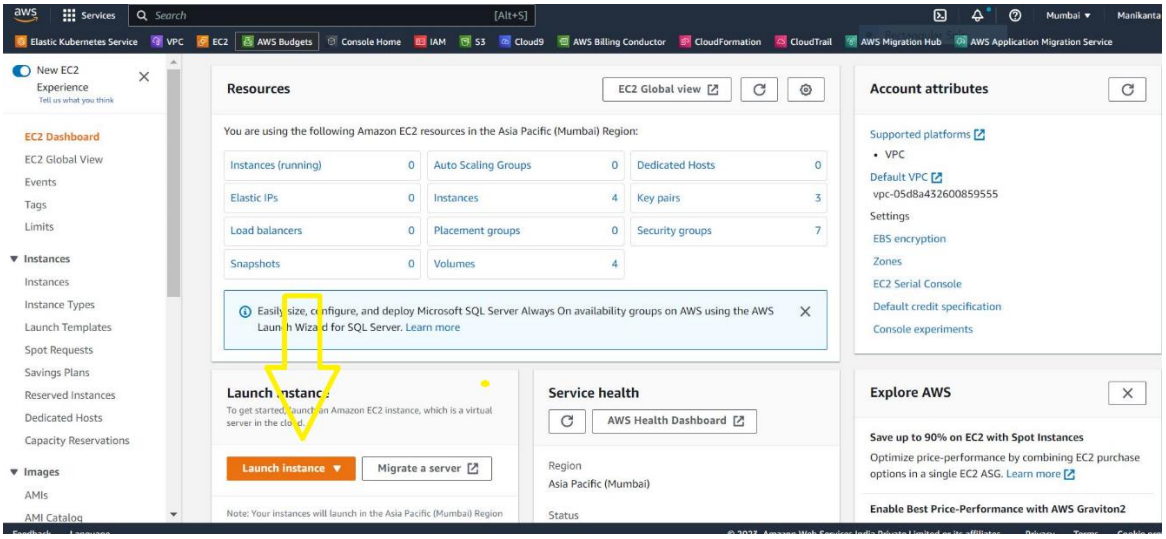

- Once the installation is complete, you can configure the server as needed. This may involve installing additional software packages, setting up a network connection, and configuring services such as SSH.



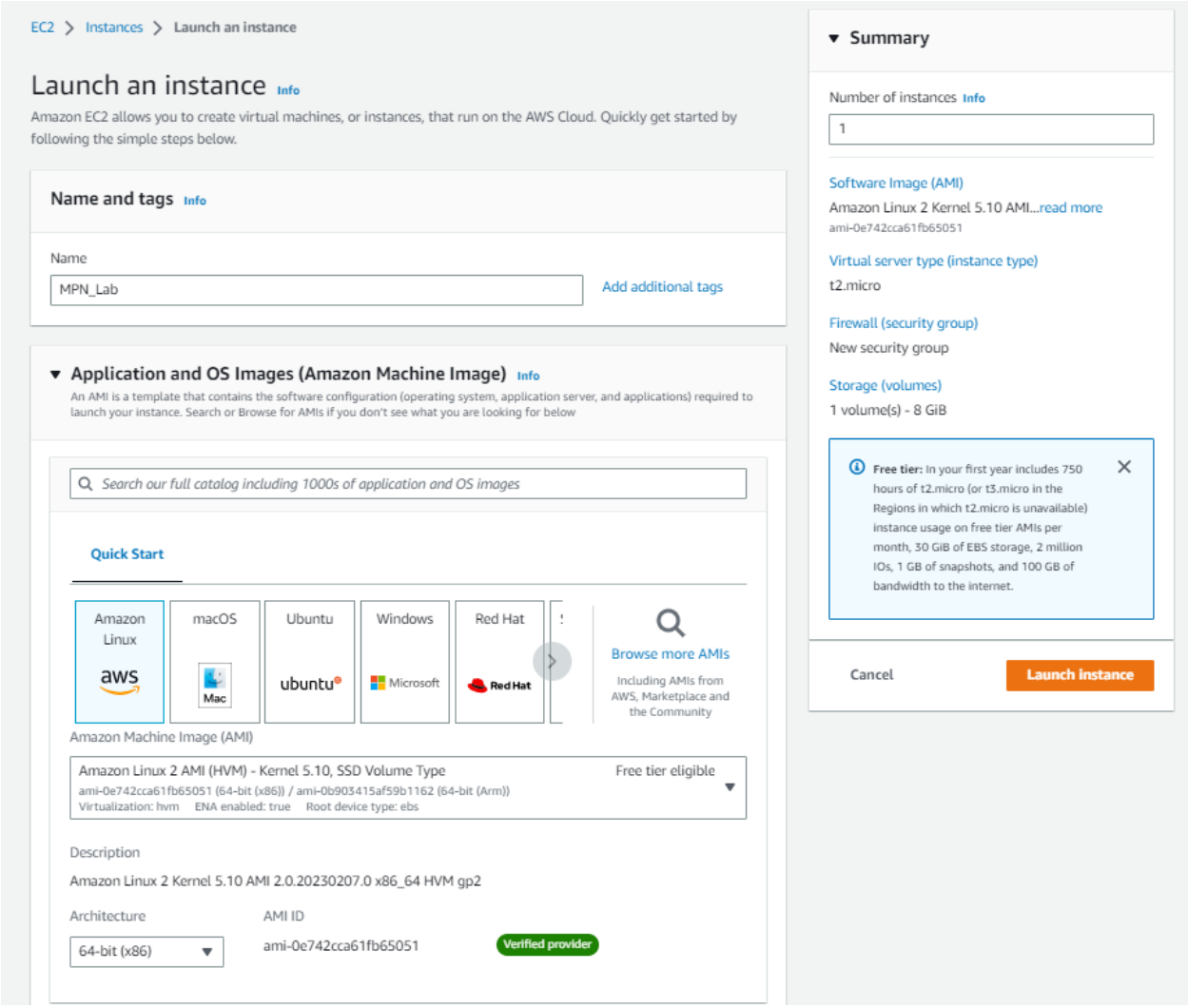

- You can then access the server through the virtual machine console or a remote connection tool like Putty/Mobixtrem.

## Create Linux server in AWS.

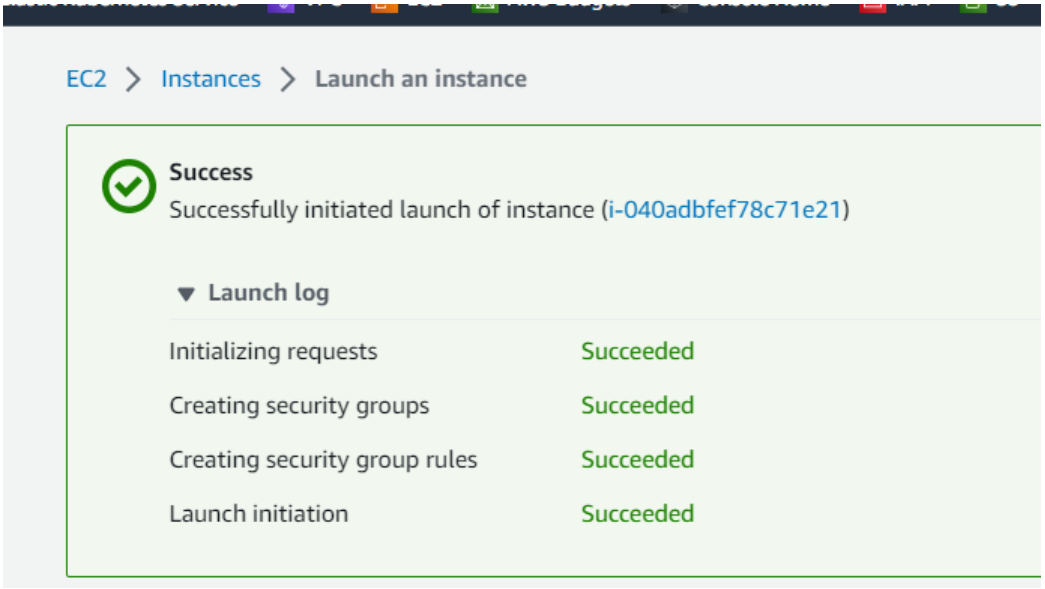
- Log in to your AWS account and navigate to the EC2 dashboard. https://signin.aws.amazon.com/
- Click "Launch Instance" to start the instance creation process.



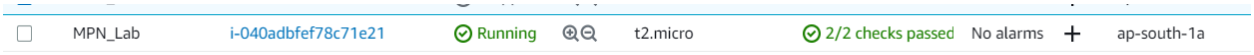
- Choose an Amazon Machine Image (AMI). For this example, we'll select "Amazon Linux 2 AMI".
- Choose an instance type. This determines the computing resources allocated to your instance.
- Configure the instance details. Here you can set options like the number of instances to launch, network settings, and storage settings.
- Add storage. By default, AWS provides an 8GB EBS volume for the root device. You can add additional volumes as needed.
- Configure security groups. Security groups control the inbound and outbound traffic for your instance. For this example, we'll allow SSH access (port 22) from any IP address.
- Review and launch the instance. Double-check your settings and launch the instance.

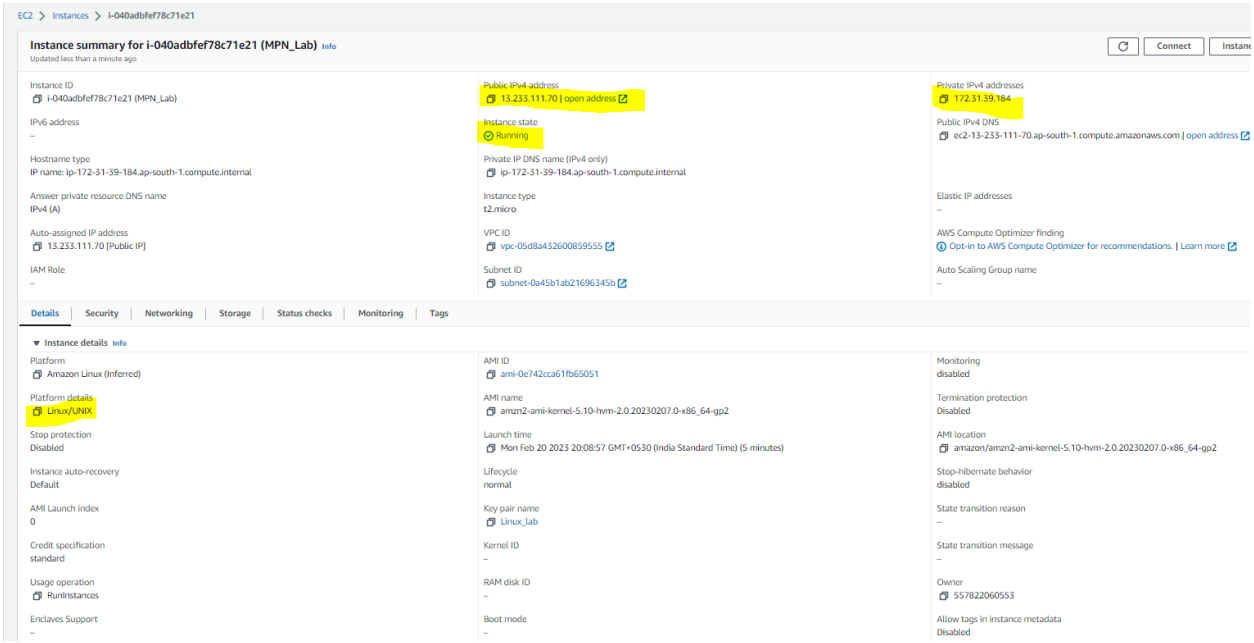


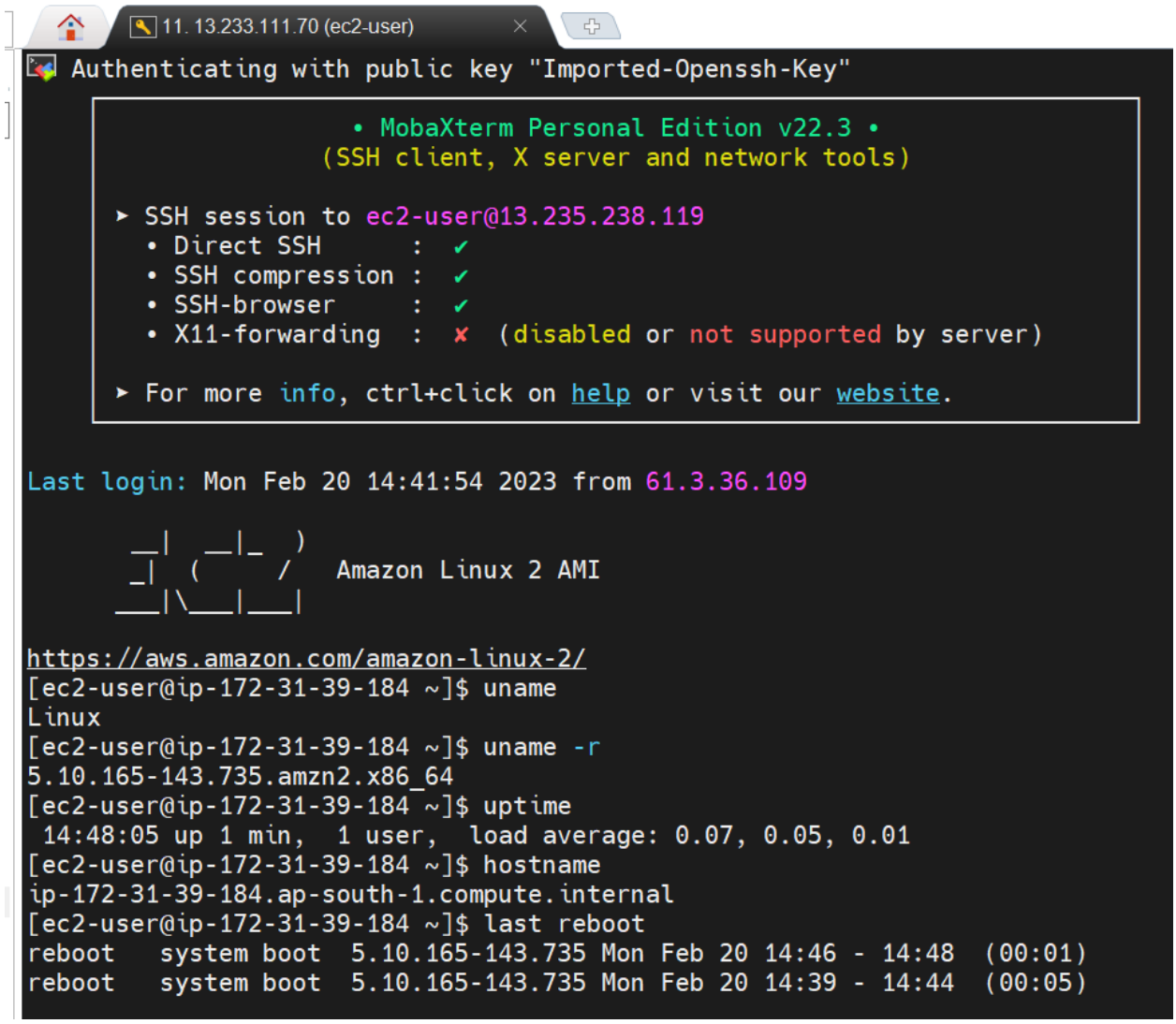

- Create a key pair. You will need to create a key pair if you plan to connect to your instance via SSH. Store the private key in a safe location, as you will not be able to download it again.




- Connect to the instance. Once the instance is running, you can connect to it using an SSH client like PuTTY/ Mobixtrem.
- Use the public IP address of your instance and the key pair you created to log in.






That's it! You now have a Linux server running in AWS