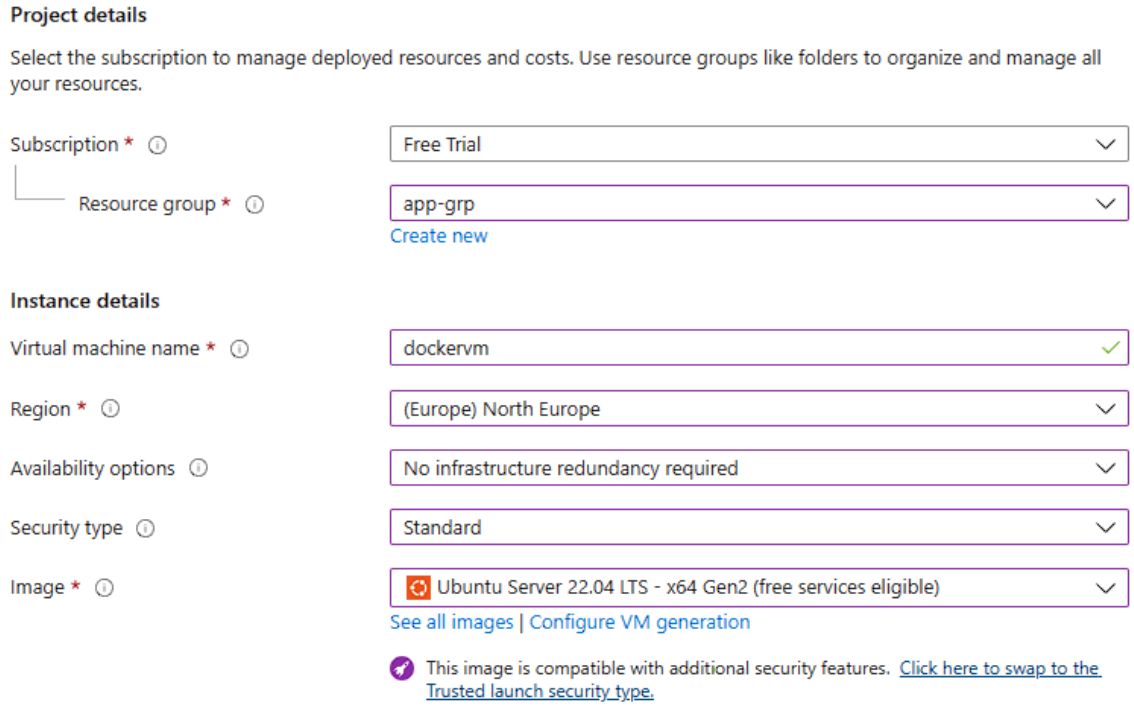
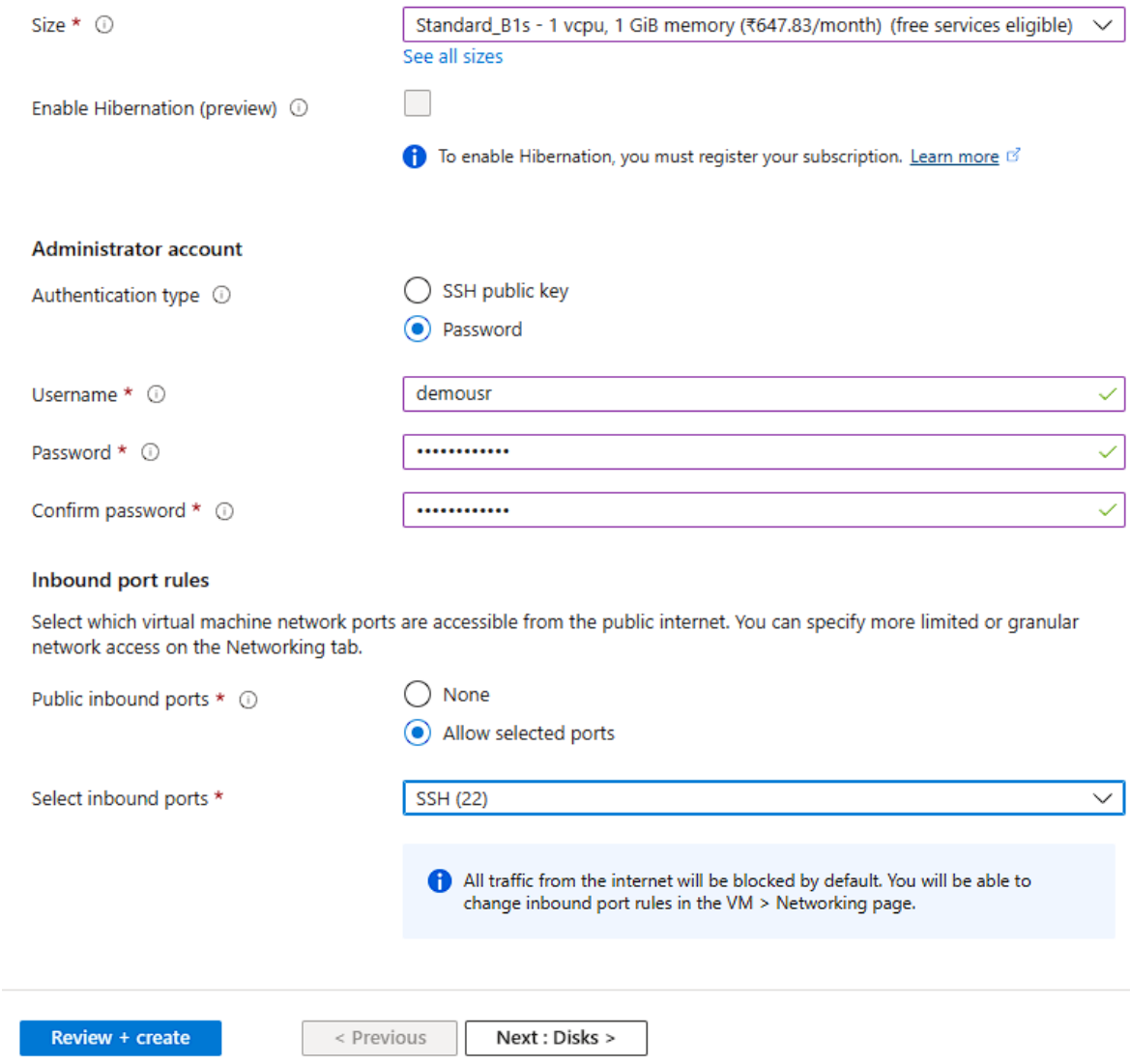
LAB: DEPLOYING DOCKER

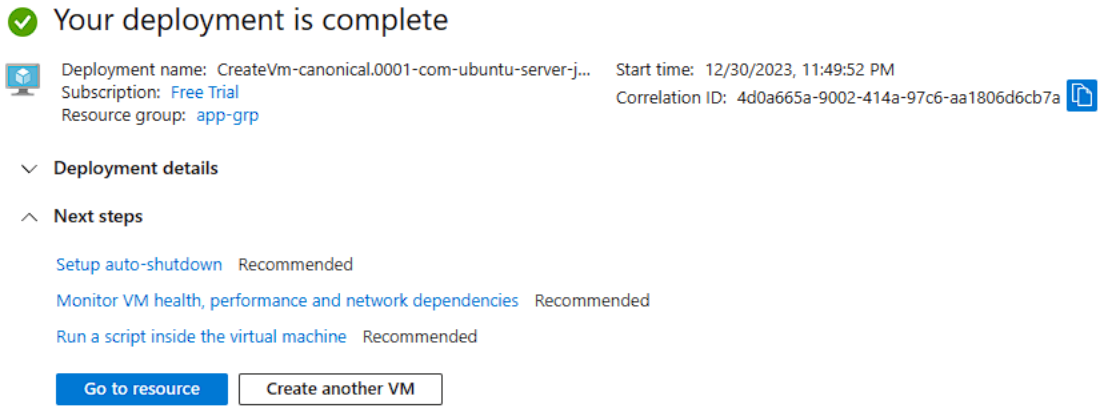
STEP 1: CREATE A VIRTUAL MACHINE

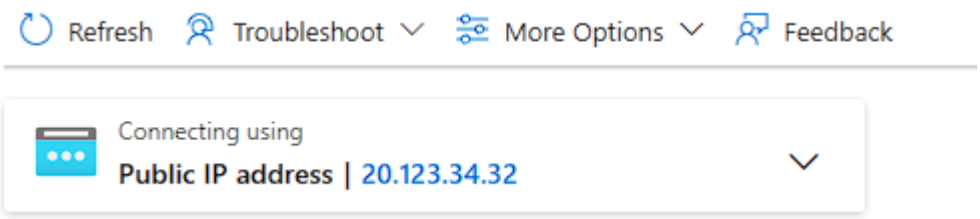
1. Log in to your Azure Portal. Then go to create resources.
2. Now you need to create a virtual machine which should be based on Linux.
3. For that follow the images below (if you know how to deploy the virtual then you can skip these steps)





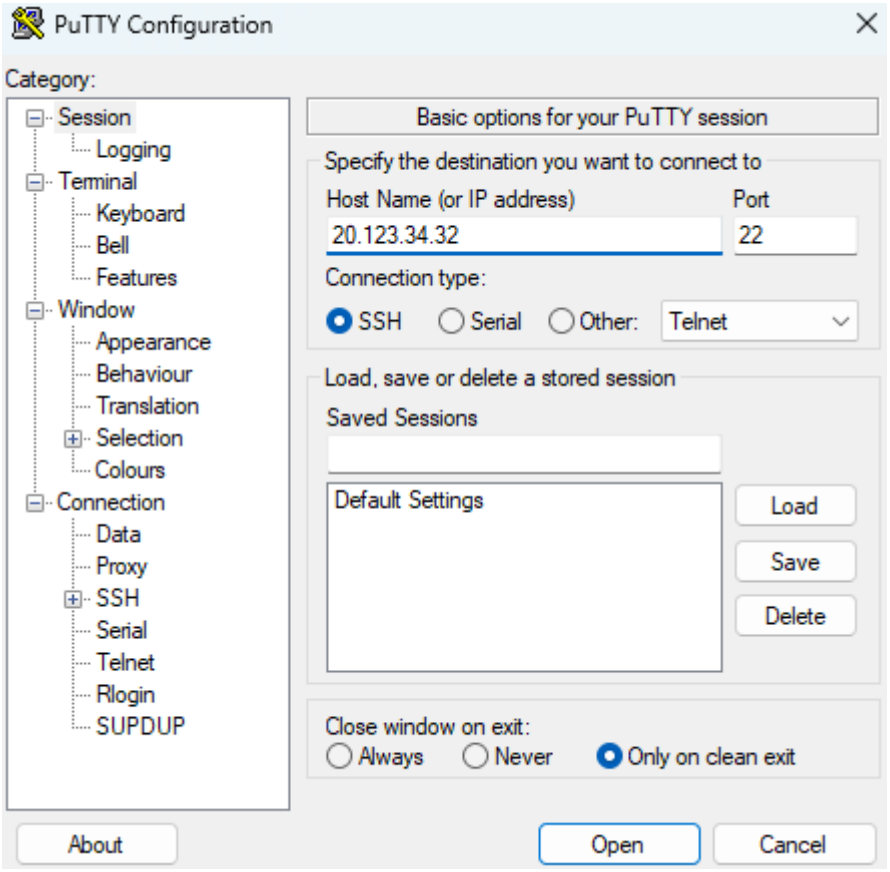
4. After these steps simply move to review page and create your virtual machine.
5. Then you need to open Putty and run your virtual machine using user name and password.
6. For that after the deployment, go to resources and copy your public IP address.





😄 STEP 2: INSTALL DOCKER ON YOUR VIRTUAL MACHINE

1. Now open putty and paste your IP there.

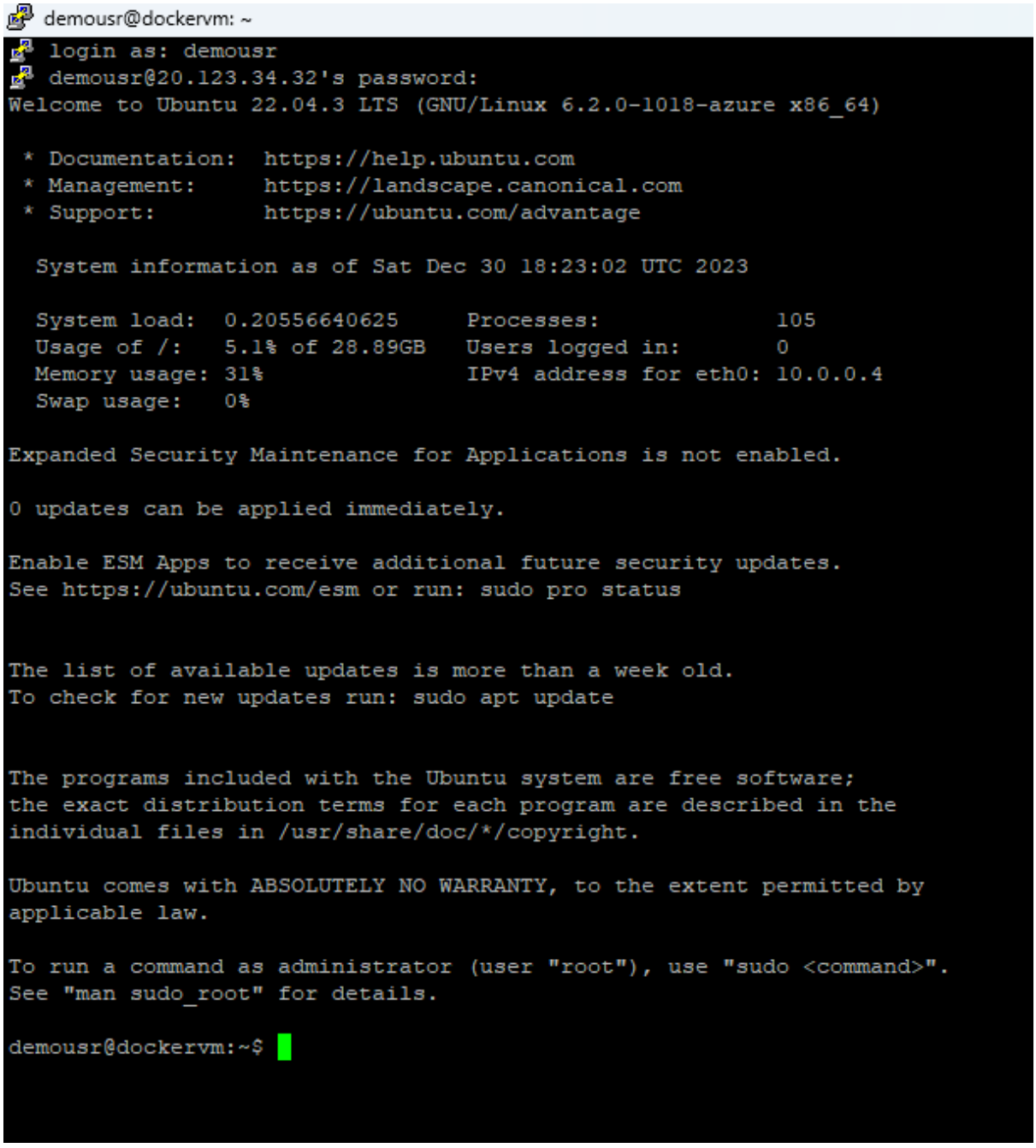


2. Click on open then give your user's name and password.
3. Once you are in your virtual machine, now you need to install docker in it.
4. For that you are going to use a link and copy all of its command step by step in the virtual machine.
5. The link to install docker is https://docs.docker.com/engine/install/ubuntu/
6. You can either use this site for the latest commands but I am putting every command step by step below or you can use these.

   sudo apt-get update

   sudo apt-get install ca-certificates curl gnupg

```
sudo install -m 0755 -d /etc/apt/keyrings

curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /etc/apt/keyrings/docker.gpg
sudo chmod a+r /etc/apt/keyrings/docker.gpg

echo \
  "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.gpg] https://download.docker.com/linux/ubuntu \
  $(. /etc/os-release && echo "$VERSION_CODENAME") stable" | \
  sudo tee /etc/apt/sources.list.d/docker.list > /dev/null

sudo apt-get update

sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin

sudo docker --version
```

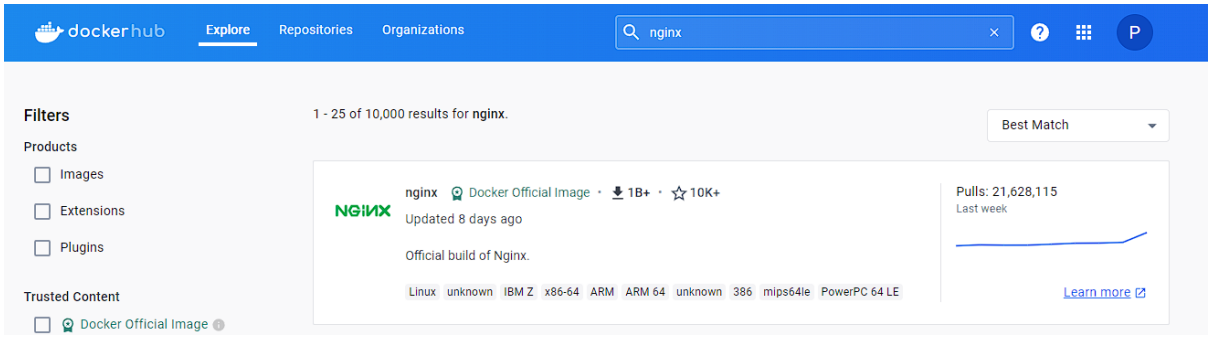


7. Hence the docker is installed successfully.

```
demousr@dockervm:~$ sudo docker --version
Docker version 24.0.7, build afdd53b
demousr@dockervm:~$
```

😄 STEP 3: INSTALL NGINX ON YOUR VIRTUAL MACHINE

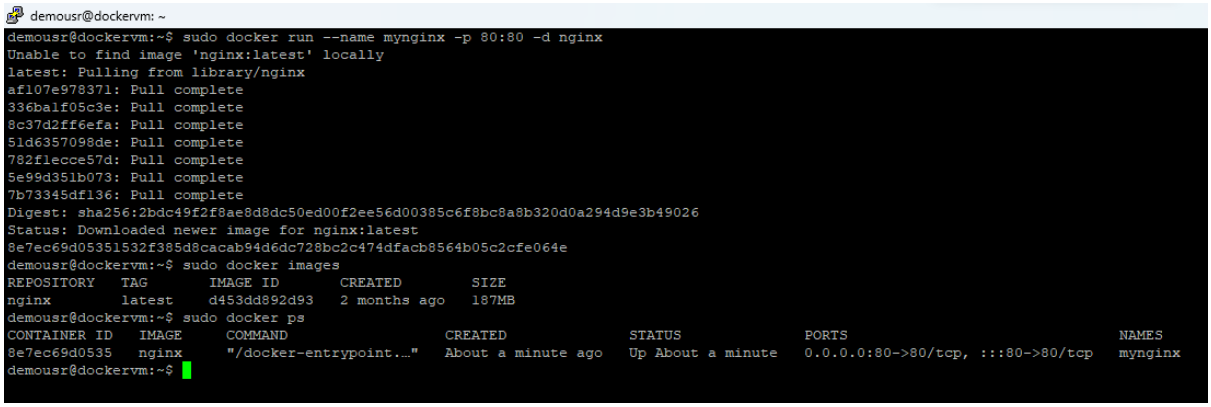
1. To install NGINX on your virtual machine you need to go to a website named **Docker Hub.**
   https://hub.docker.com/
2. On this website, first you need to create your account. Then you need to search NGINX in the search bar and open the first link.



3. After opening this you need to scroll down a little there you can see multiple commands and you can play with those as well (if you want to), but for the time being you need to use this command

   sudo docker run --name mynginx -p 80:80 -d nginx

4. I'm telling Docker, please use the nginx image that is available in Docker Hub. What is command will first do is, it will download the image from Docker Hub and then, why the run command is going to create a container out of that image. It's going to give a name to the container. So, I'm giving my own name here. I'm saying please run the process in the background. I'm doing a port mapping of 80 to 80 seasons now. My engine X server is going to run, has a container on the Azure VM.



5. So, now you need to copy your public IP address and paste it in a new tab.