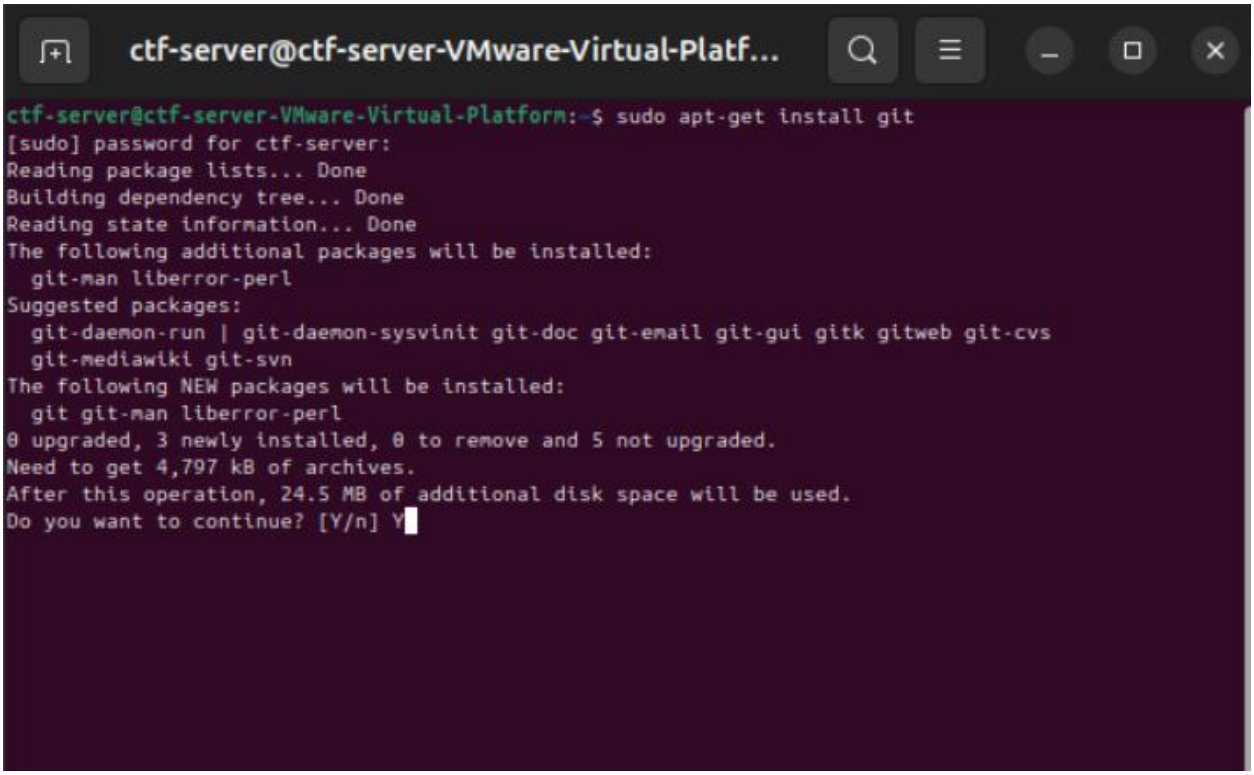
Root The Box CTF Setup on Ubuntu CLI

By: Jason Salerno & Javier Paz

Date: 5/16/2024

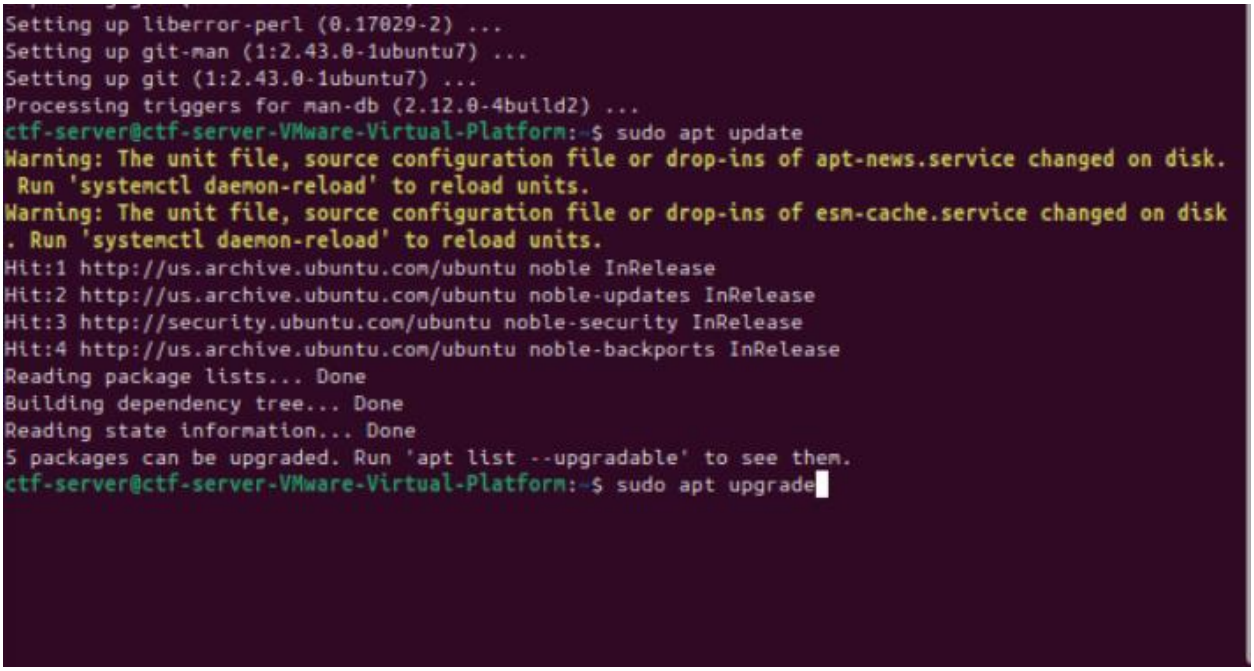
Step 1: Assuming you already have ubuntu installed, navigate to the terminal and execute the command below, once prompted type **Y** and press enter.

Command: **sudo apt-get install git**



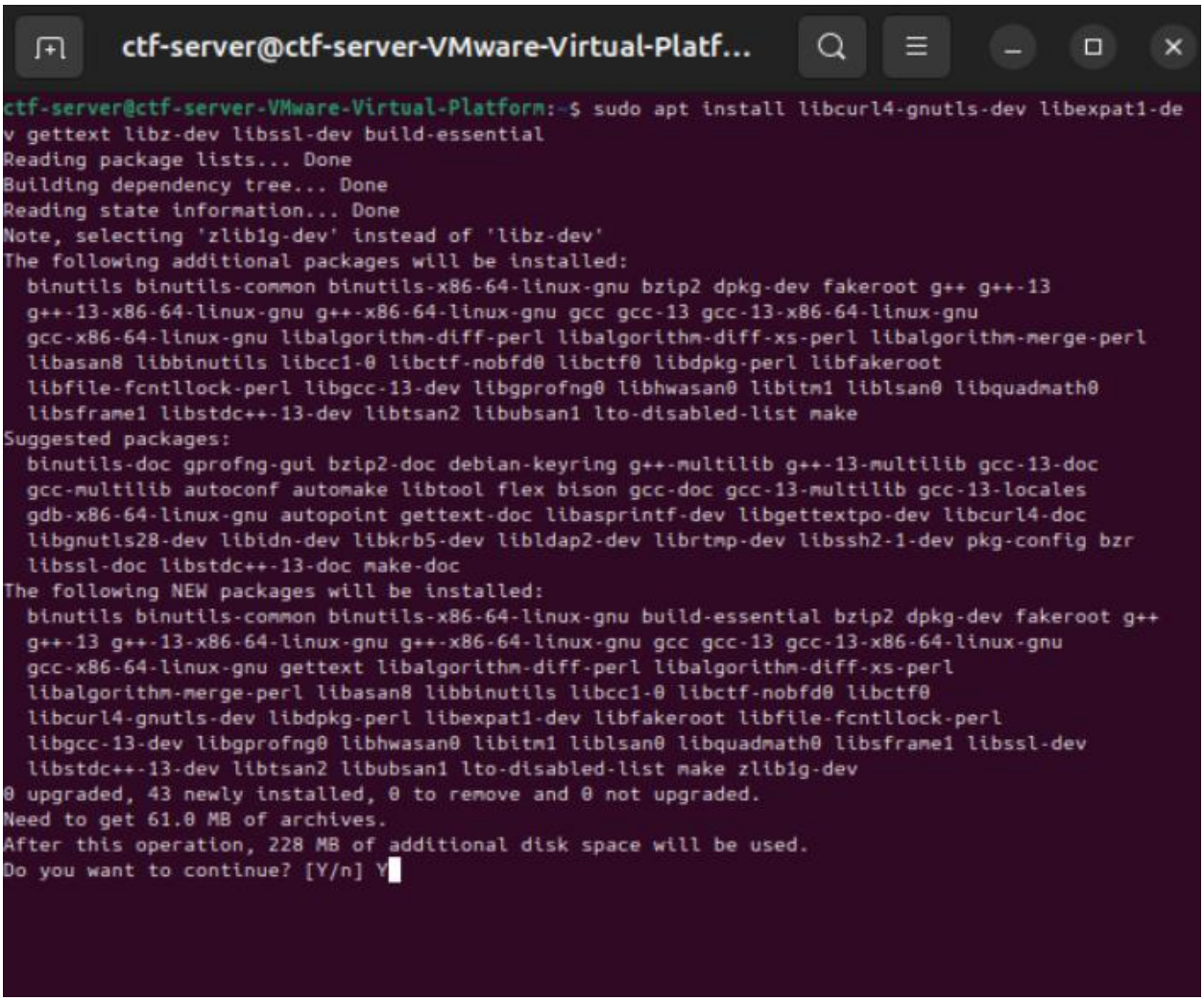
Step 2: then update the package list followed by a package list upgrade.

Command: **sudo apt update, sudo apt upgrade**



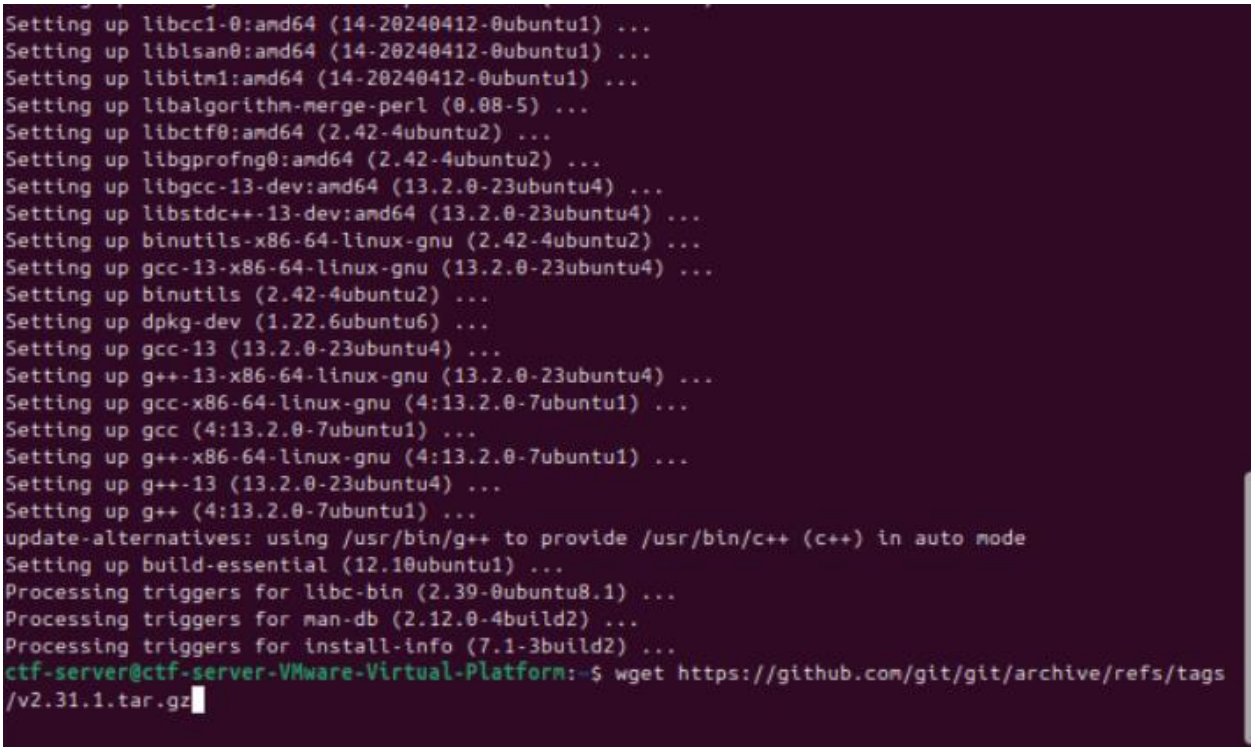
Step 3: Install the requirements needed to install git, when prompted press **Y**.

Command: **sudo apt install libcurl4-gnutls-dev libexpat1-dev gettext libz-dev libssl-dev build-essential**



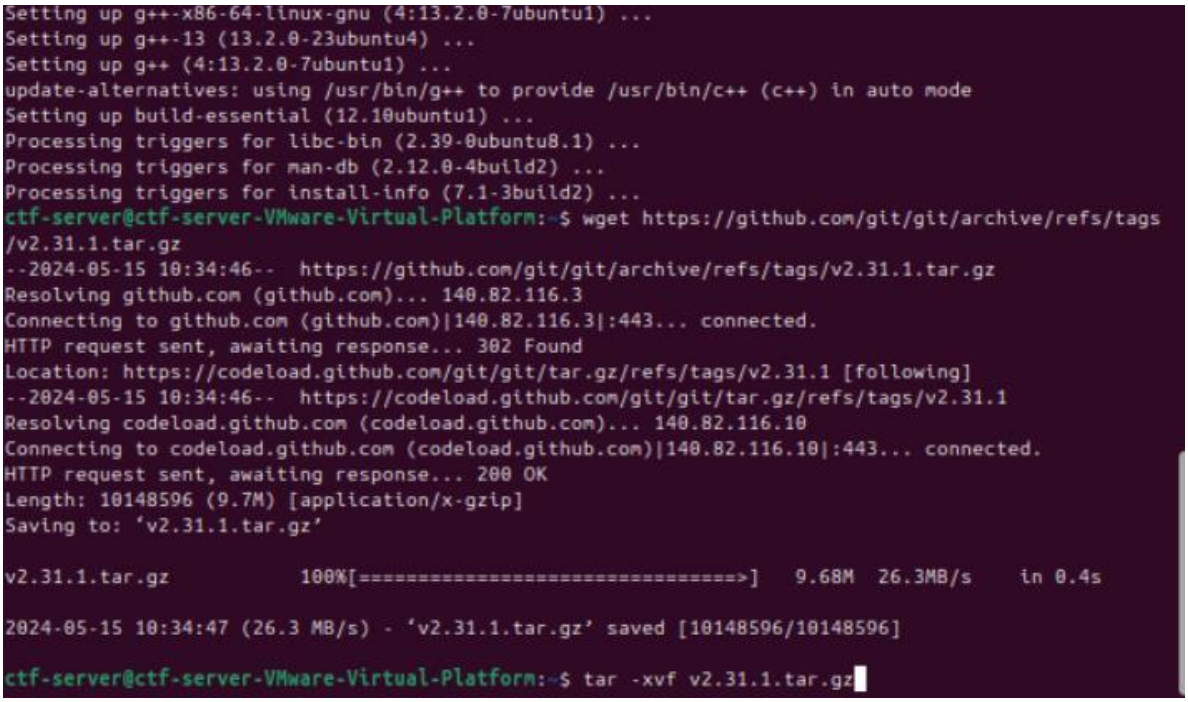
Step 4: Download the git source code from the GitHub website.

Command: **wget https://github.com/git/git/archive/refs/tags/v2.31.1.tar.gz**



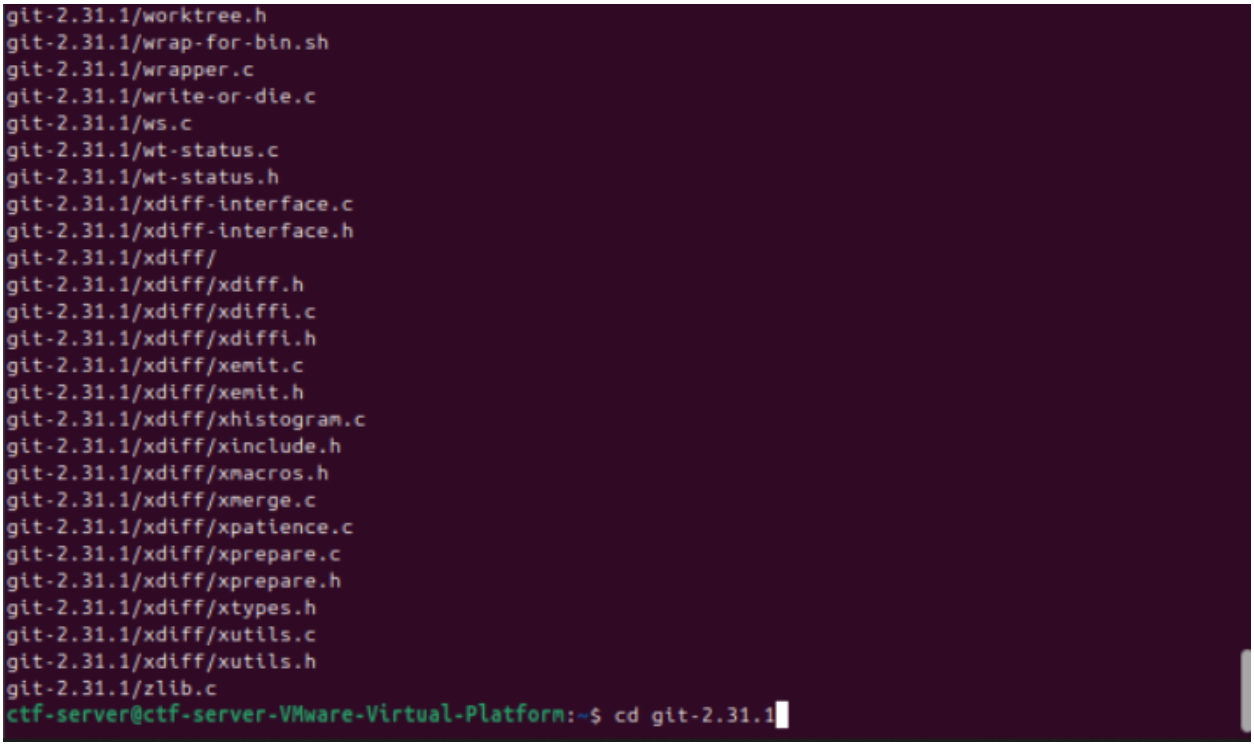
Step 5: Next we need to extract the downloaded archive by using the tar command.

Command: **tar -xvf v2.31.1.tar.gz**



Step 6: Change directory to git-2.31.1 by using the cd command.

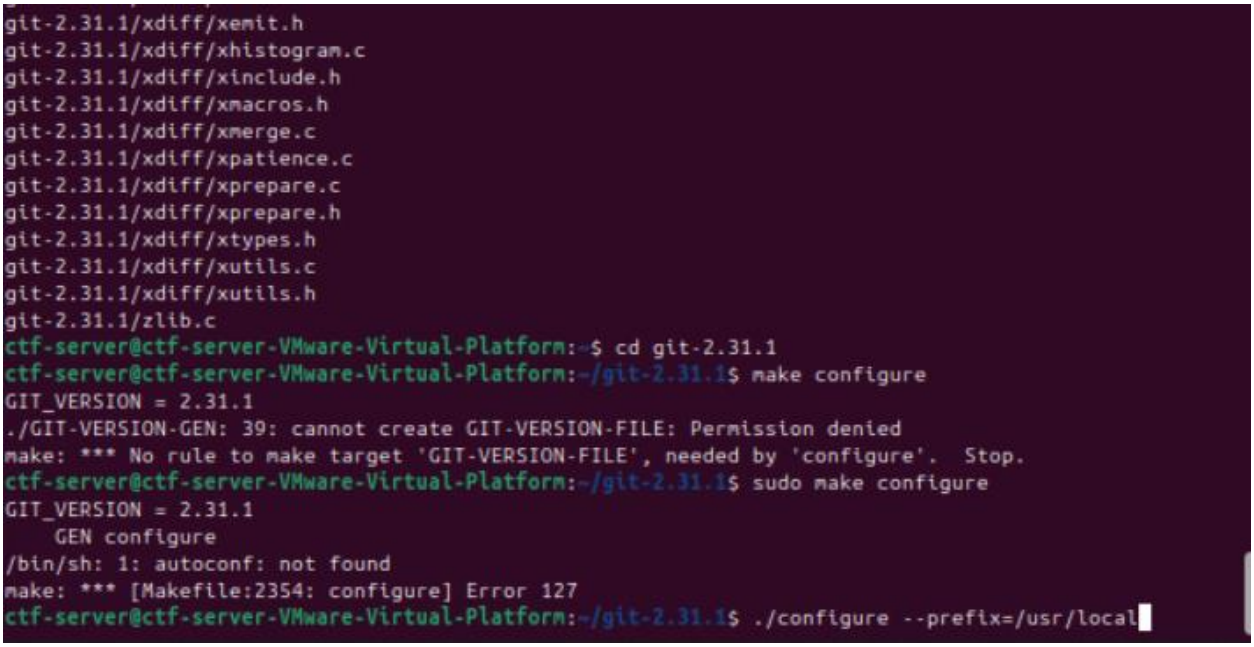
Command: **cd git-2.31.1**



Step 7: Run the following command to configure the build.

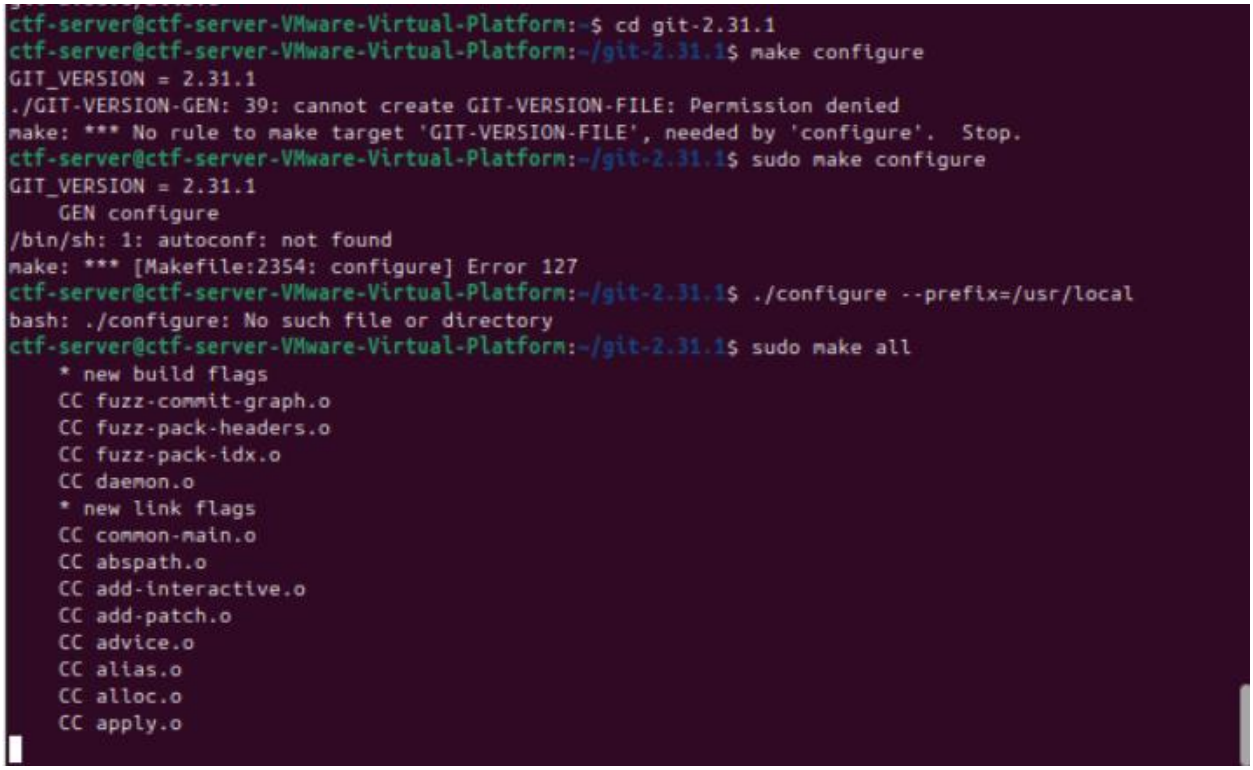
Command: **make configure**

Note: make configure will give you error messages but the command makes all will download everything



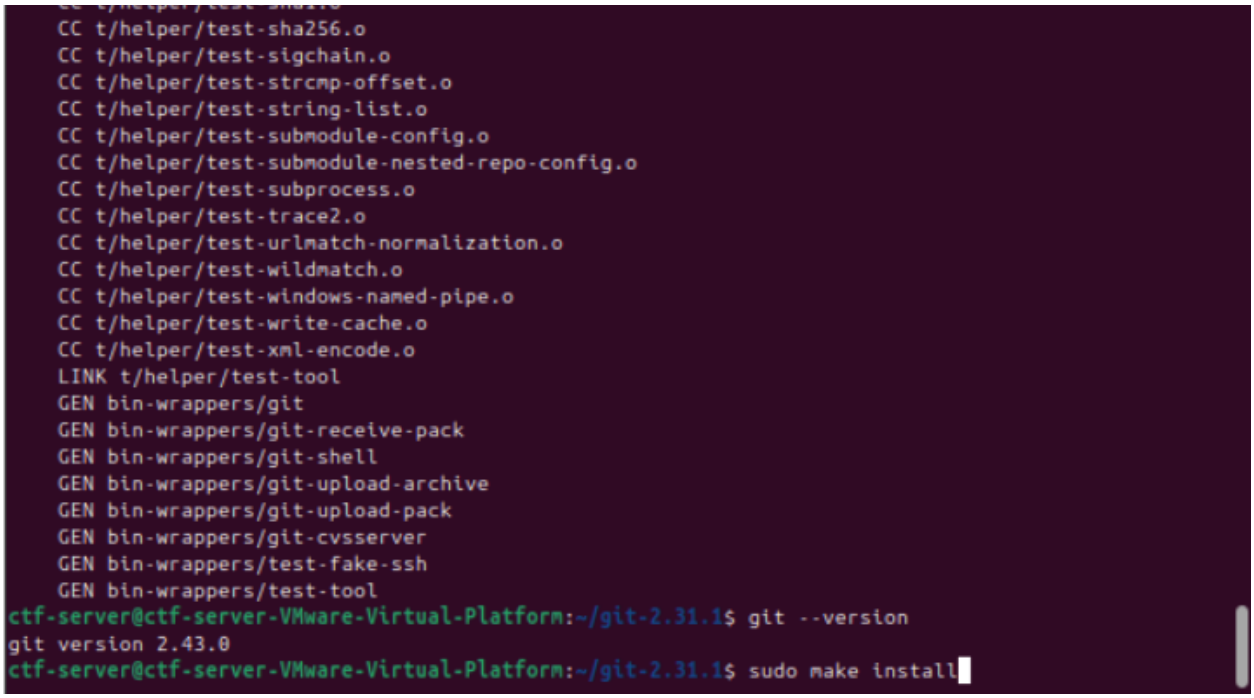
Step 8: Install Git by using the following command.

Command: **sudo make all**



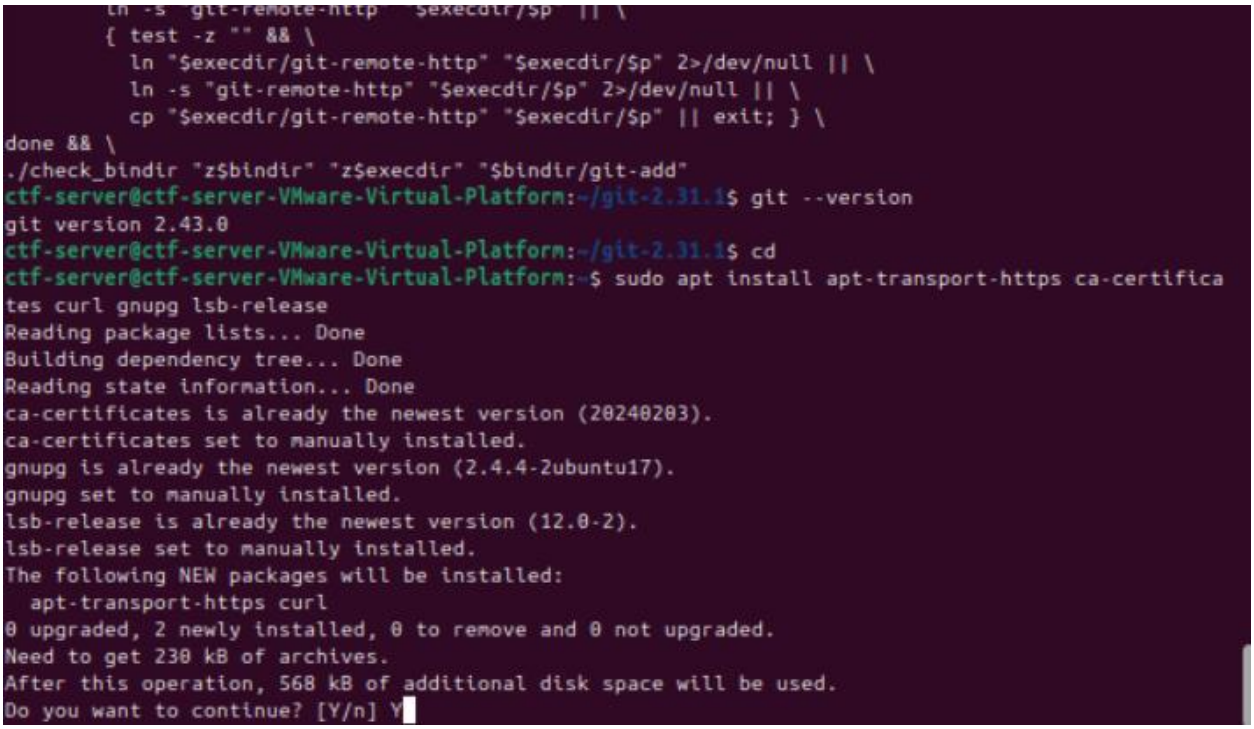
Step 9: Confirm that git has been installed by checking the version, and after checking the version make sure to change back to the home directory.

Command: **git –version, cd**



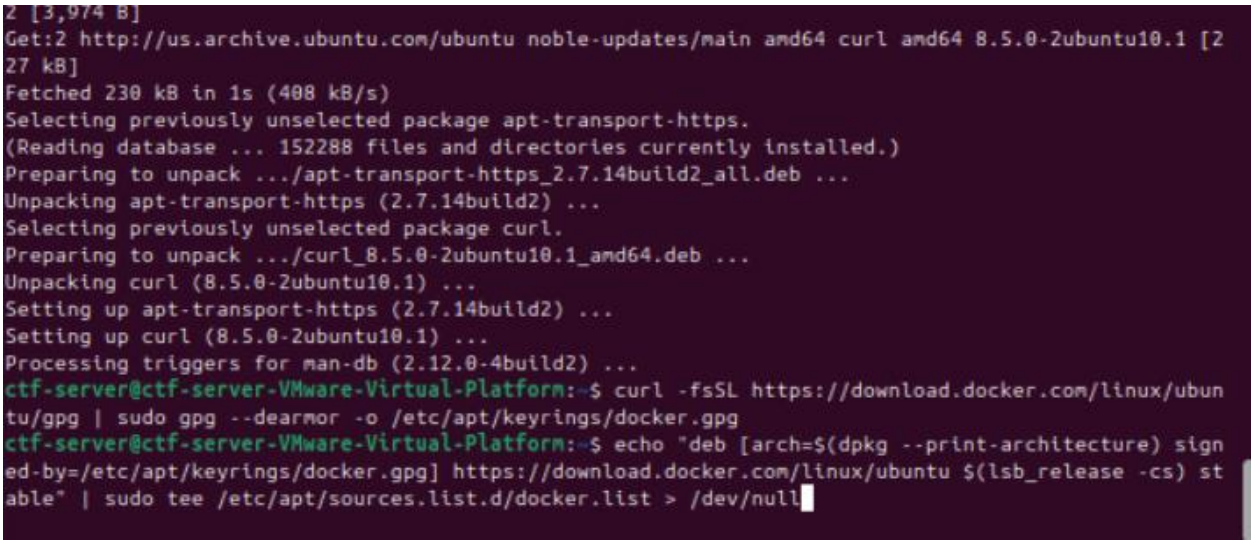
Step 10: Next we need to install the docker prerequisites and press **Y**.

Command: **sudo apt install apt-transport-https ca-certificates curl gnupg lsb-release**



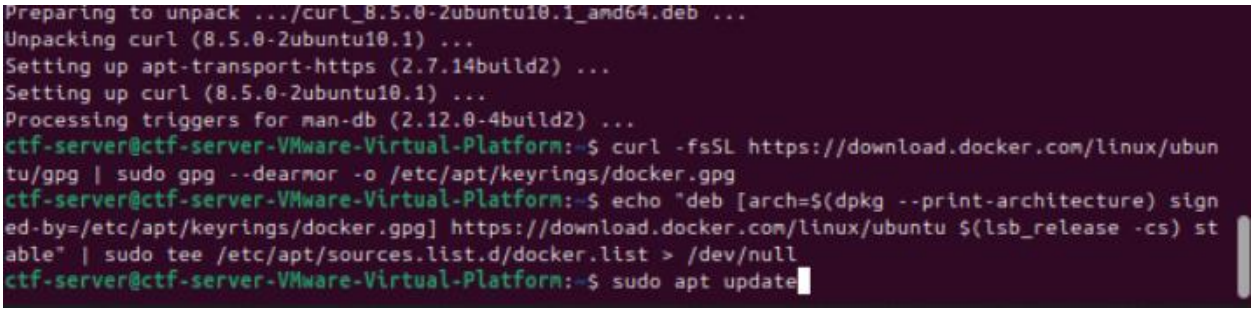
Step 11: Then import the docker GPG repository key to your ubuntu system. This security feature ensures that the software you're installing is authentic.

Command: **curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /etc/apt/keyrings/docker.gpg**



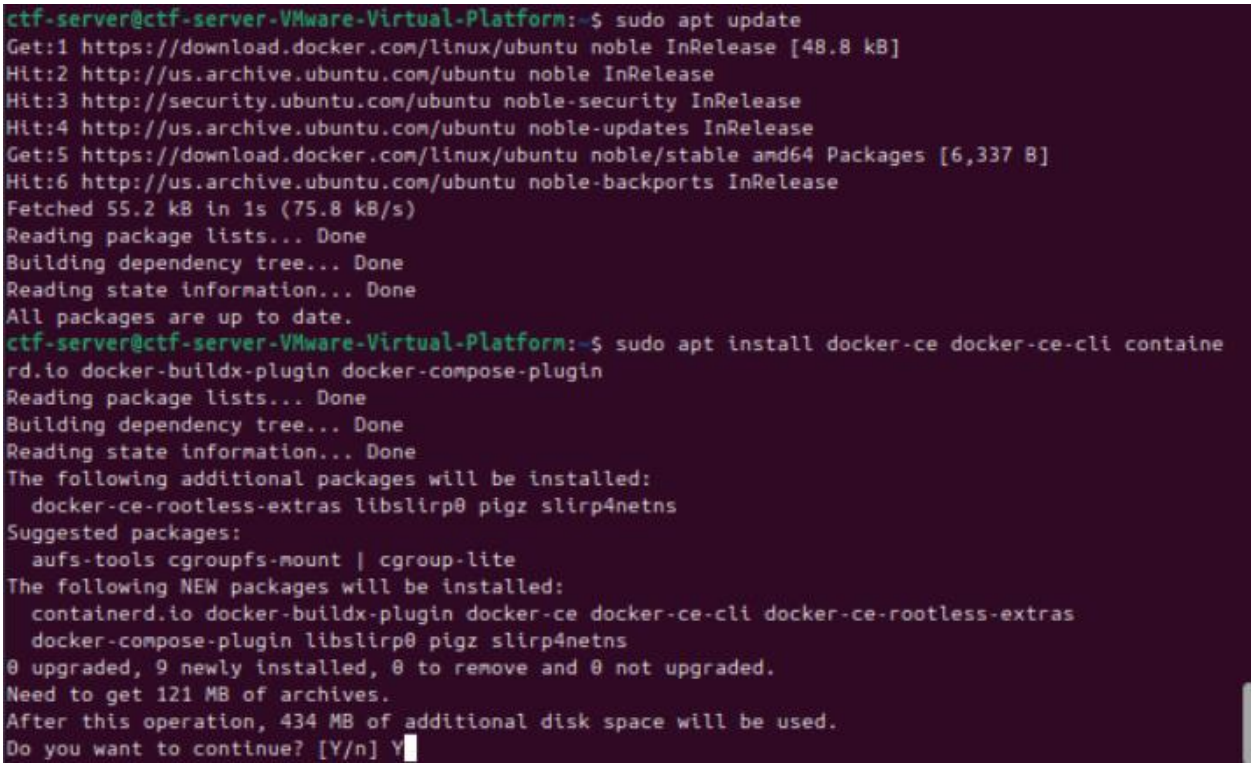
Step 12: after importing GPG keys, the Docker repository is added to Ubuntu 22.04. Updates for Docker will then be included in regular system updates, then refresh the apt package list by running the command **sudo apt update**.

Command: **echo "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.gpg] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null , sudo apt update**



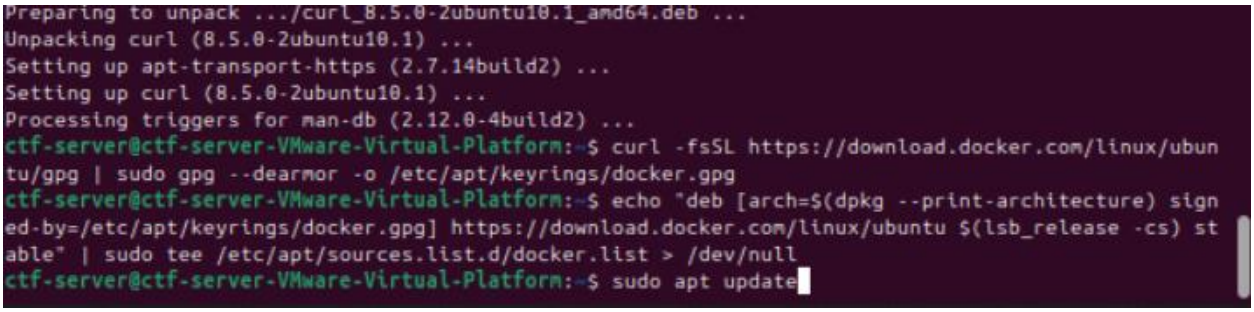
Step 13: Install docker to the latest up-to-date version, and press **Y**.

Command: **sudo apt install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin**



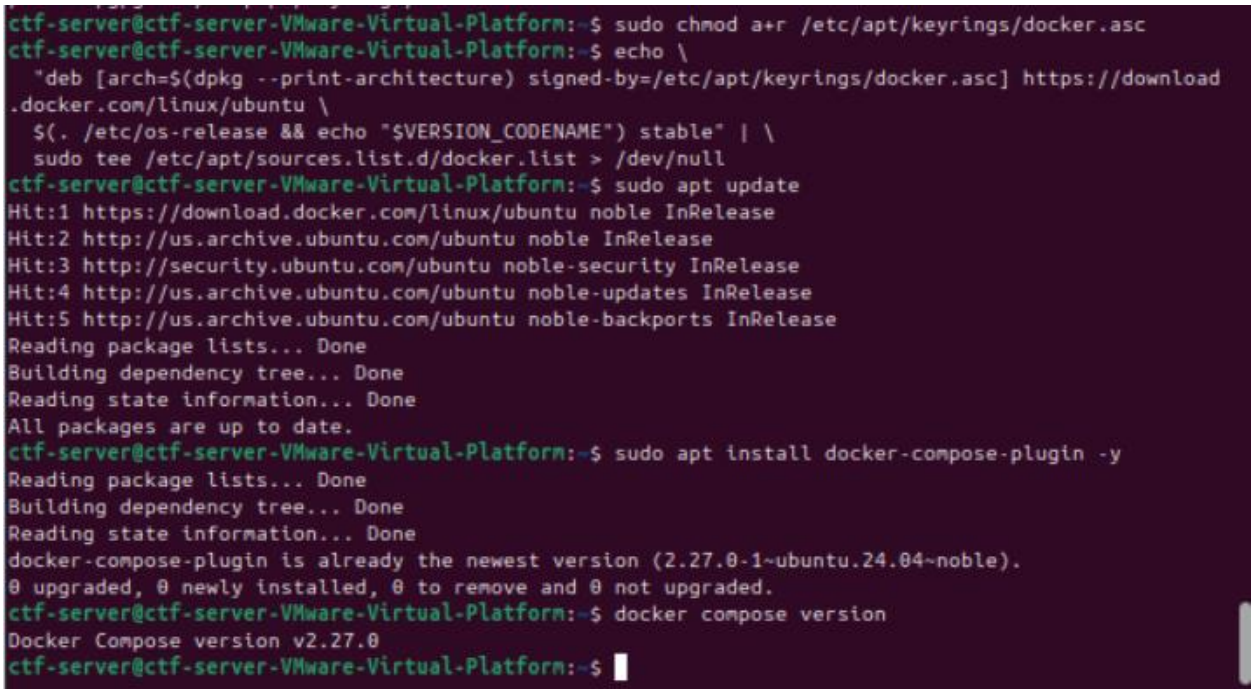
Step 14: This command adds Docker's stable repository to your system's APT sources, allowing you to install and update Docker packages from Docker's official repository. Refresh the apt package list by executing the command sudo apt update.

Command: **echo "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.asc] 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 update**



Step 14: Next simply install docker compose, then verify that it has been installed by checking its version.

Command: **sudo apt install docker-compose-plugin –y , docker compose version**



Step 15: Now execute a test run on docker compose, then create a new directory and change to the directory. After that create a .yml file and add the following code below.

Command: **mkdir hello-world && cd hello-world, sudo nano compose.yml**

version: '2'

services:

hello-world:

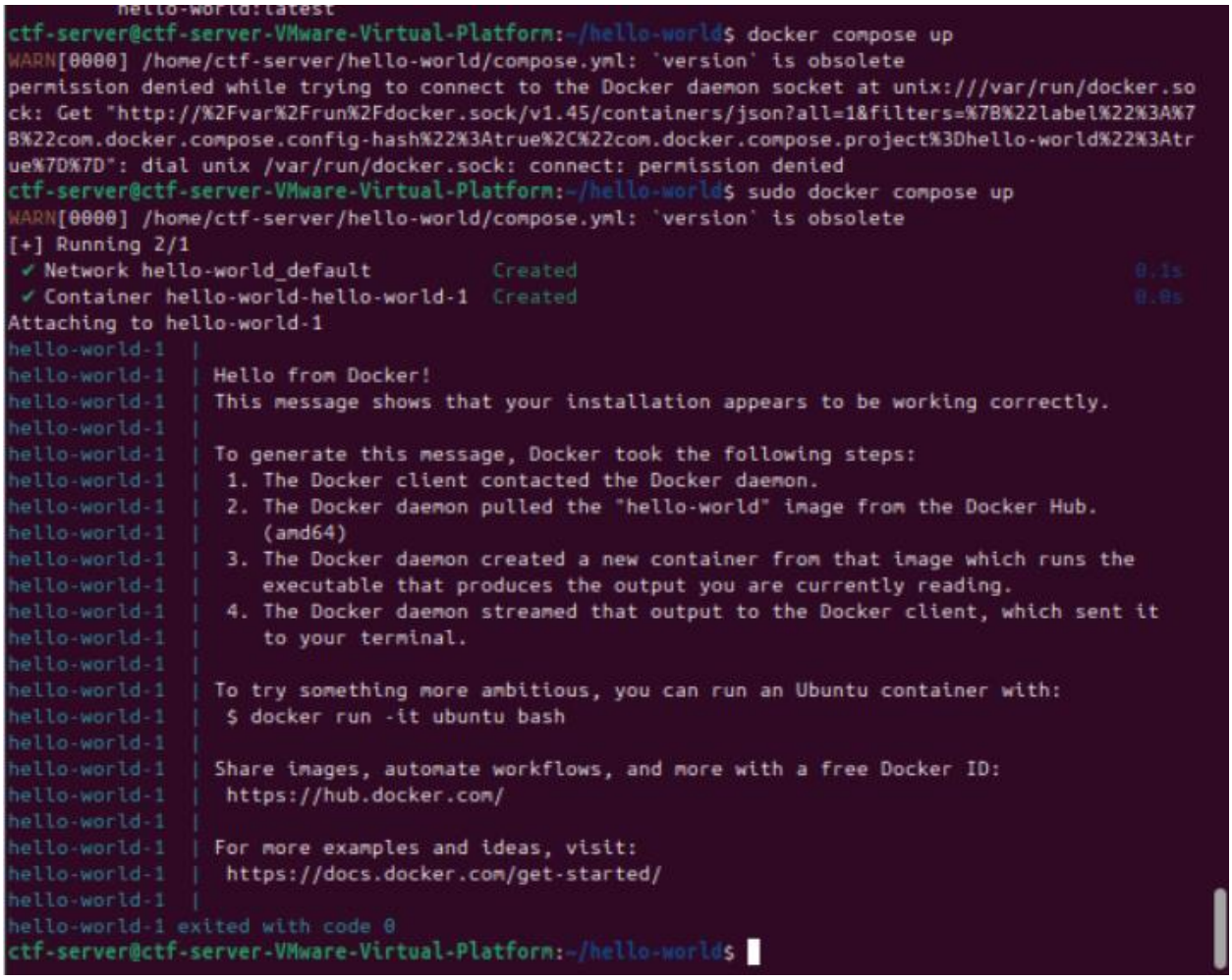
image:

hello-world:latest

```
ctf-server@ctf-server-VMware-Virtual-Platform:~$ docker compose version
Docker Compose version v2.27.0
ctf-server@ctf-server-VMware-Virtual-Platform:~$ sudo mkdir hello-world && cd hello-world
ctf-server@ctf-server-VMware-Virtual-Platform:~/hello-world$ nano compose.yml
ctf-server@ctf-server-VMware-Virtual-Platform:~/hello-world$
ctf-server@ctf-server-VMware-Virtual-Platform:~/hello-world$ sudo nano compose.yml
ctf-server@ctf-server-VMware-Virtual-Platform:~/hello-world$ cat compose.yml
version: '2'
services:
   hello-world:
      image:
         hello-world:latest
ctf-server@ctf-server-VMware-Virtual-Platform:~/hello-world$
```

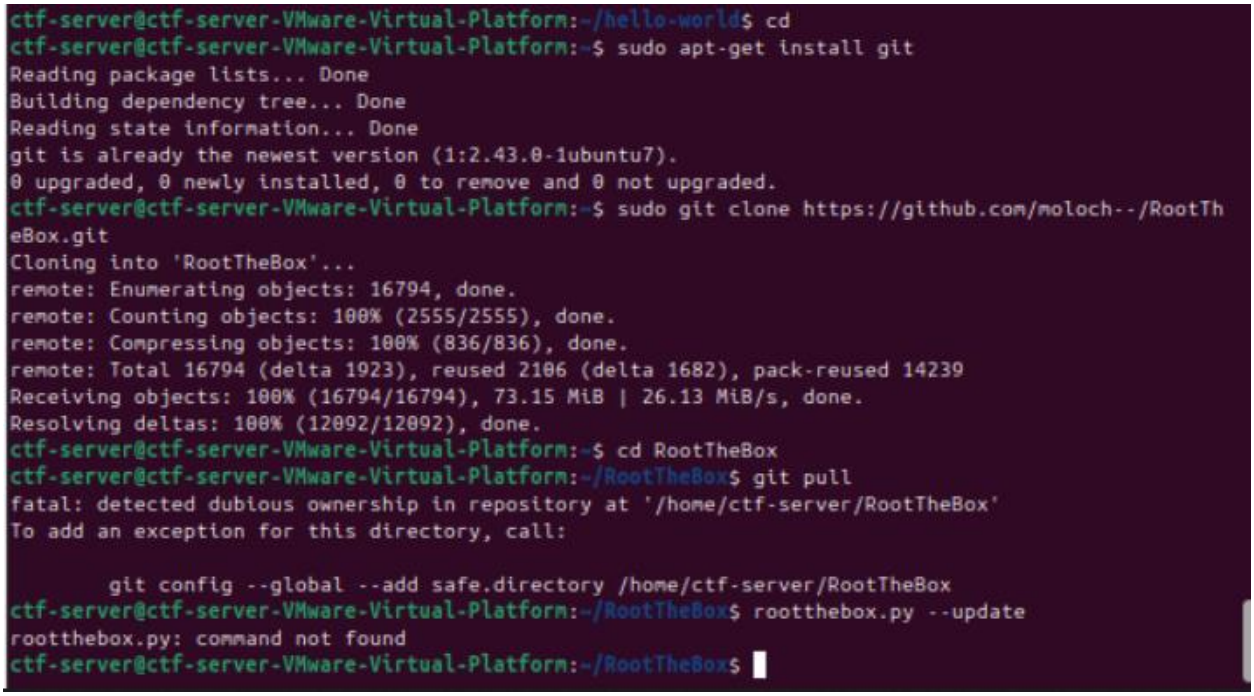
Step 16: Run the docker compose by running the command below.

Command: **sudo docker compose up**



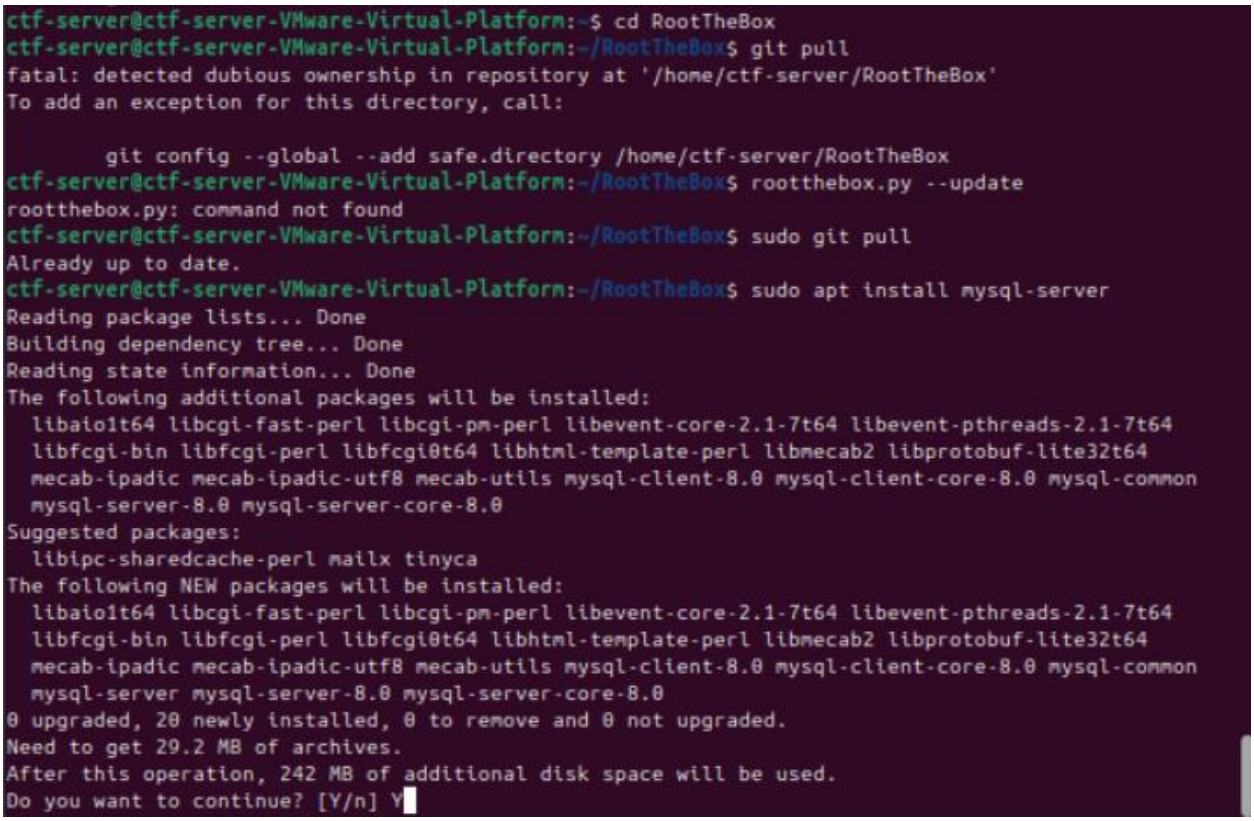
Step 17: Change back to the home directory then install git and clone the RootThebox repository from GitHub. After that change to the RootTheBox directory, then update the local GitHub repository

Command: **sudo apt-get install git , git clone https://github.com/moloch--/RootTheBox.git , git pull**



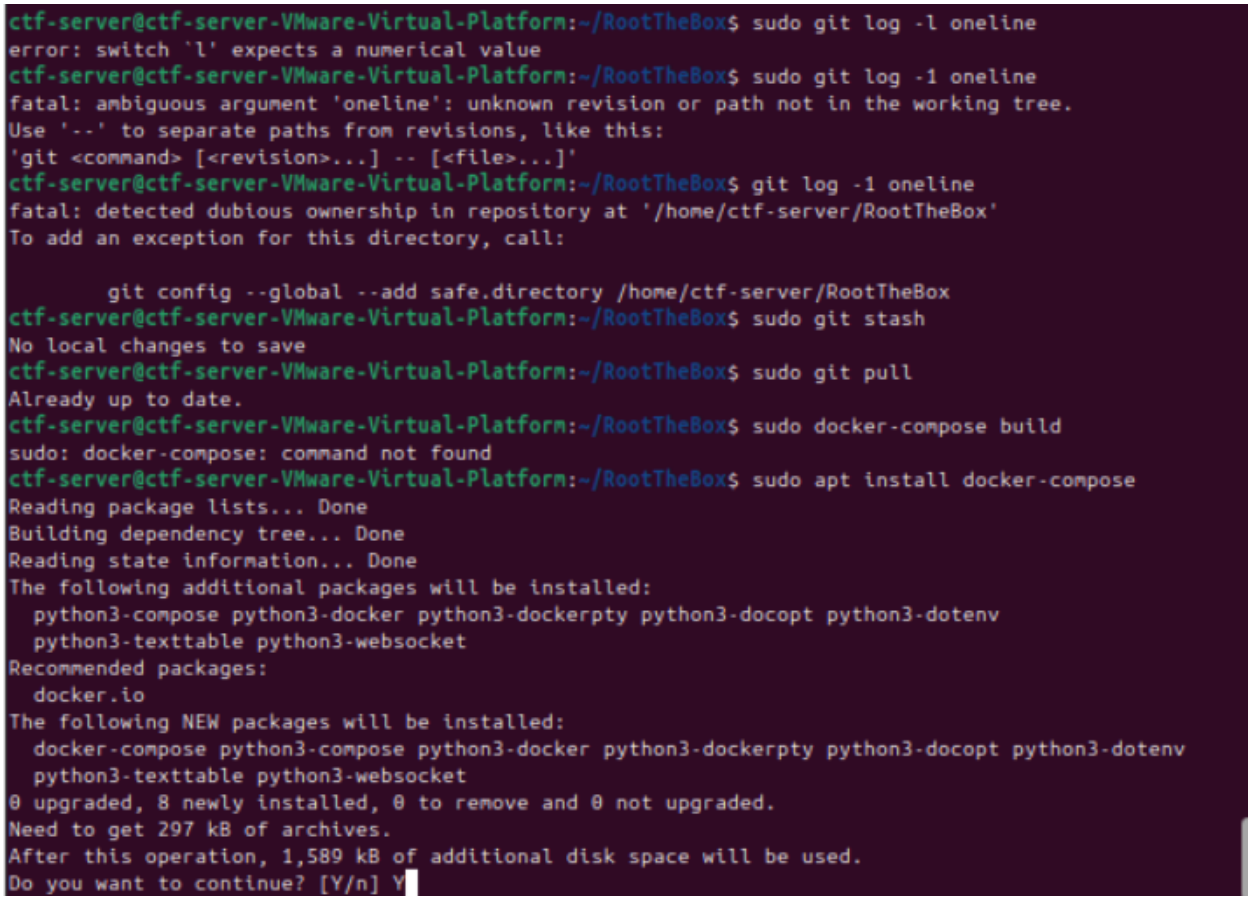
Step 17: Next simply Install mysql server by executing the command below and pressing Y.

Command: **sudo apt install mysql-server**



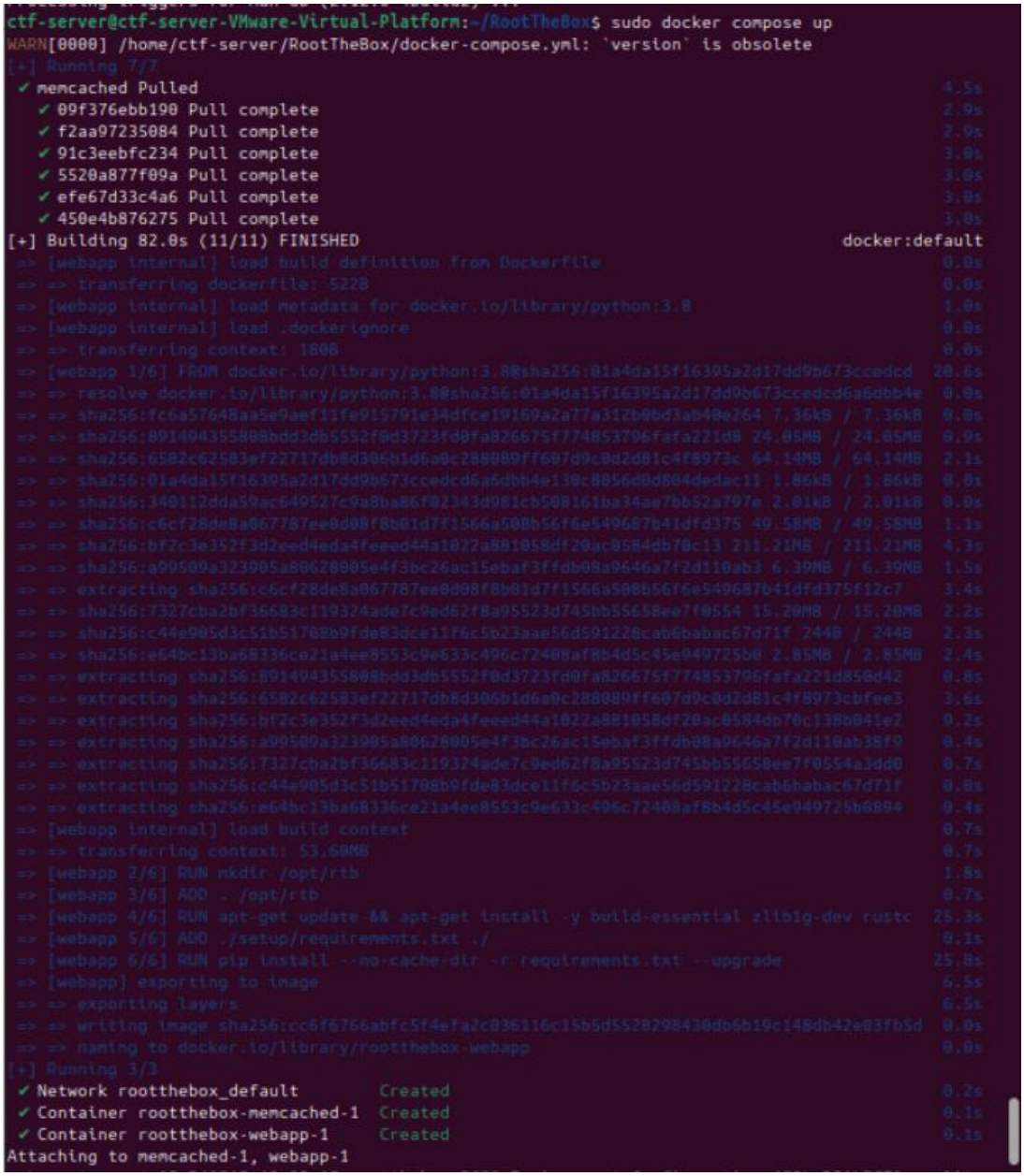
Step 18: Then save the changes of git and update the local repository with changes from the remote repository. After that build a docker image based on the composed.yml file that was created earlier.

Command: **sudo git stash , sudo git pull , sudo docker-compose build , sudo apt install docker-compose**



Step 18: Finally, it's time to get the RootTheBox CTF up and running.

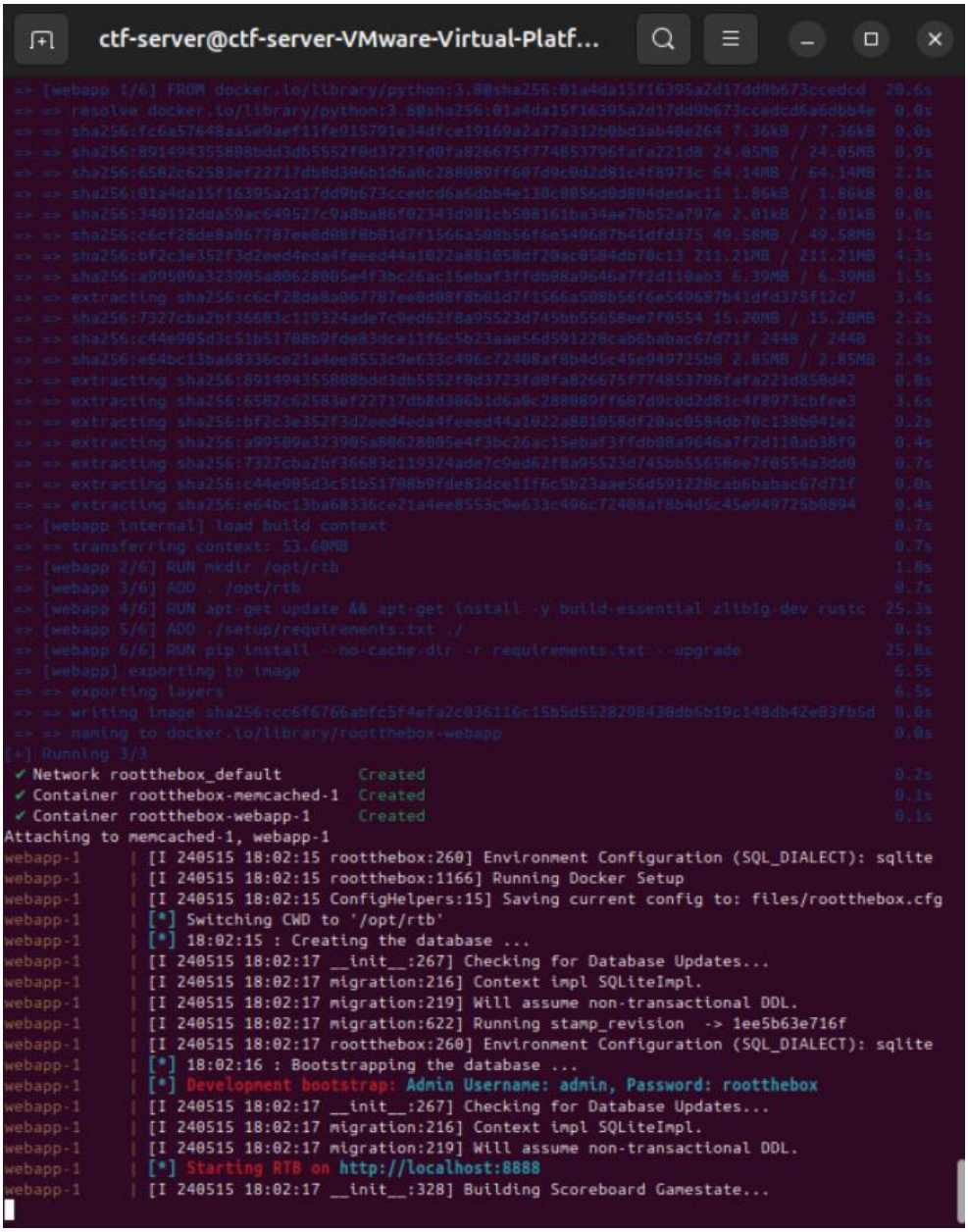
Command: **sudo docker compose up**



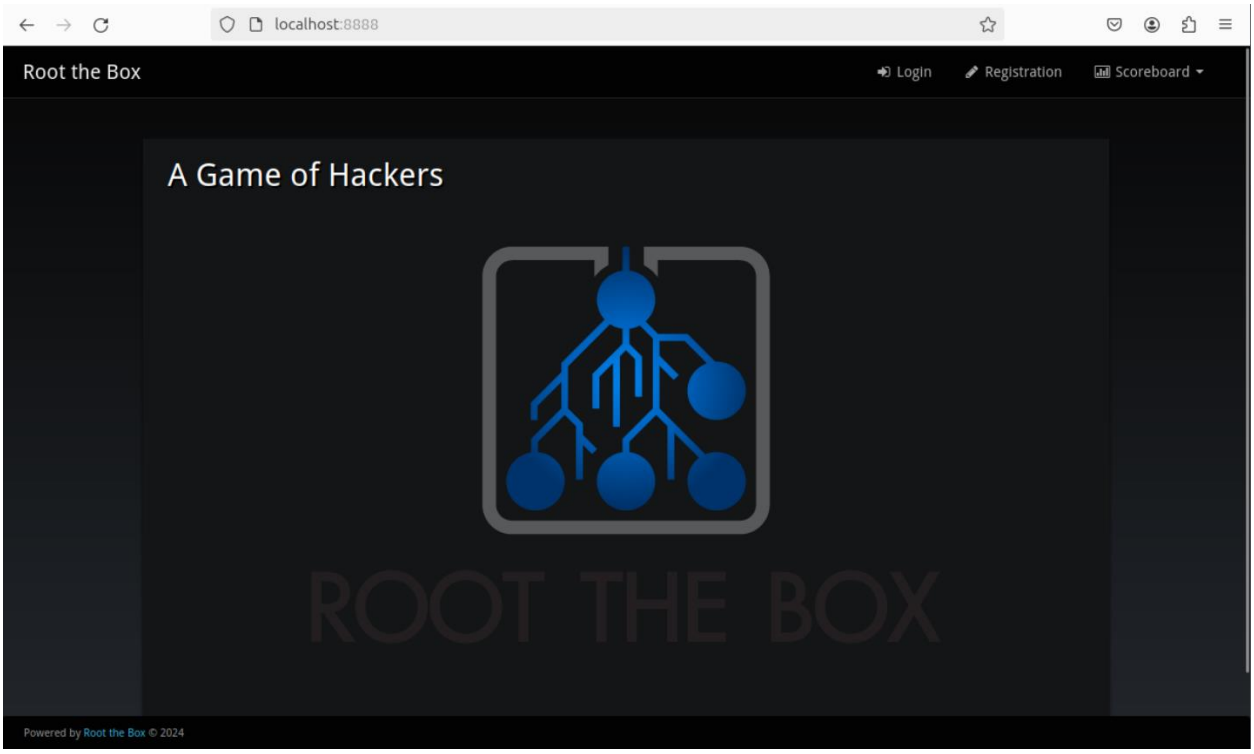
Step 19: From the output that is displayed here we can see that the RootTheBox CTF is up and running on http://localhost:8888. The admin account has been

created by default when running the RTB CTF and it's credentials are also displayed which are username: admin, password: rootthebox.

Note: This documentation is for the initial setup on a Linux machine, this documentation does not cover the networking aspects or networking configurations of it.



Step 20: Open a browser and type http://localhost:8888. Here we can see that we finally have our RTB CTF up and running, we can simple login as admin with the credentials given at the terminal output.



End of Documentation