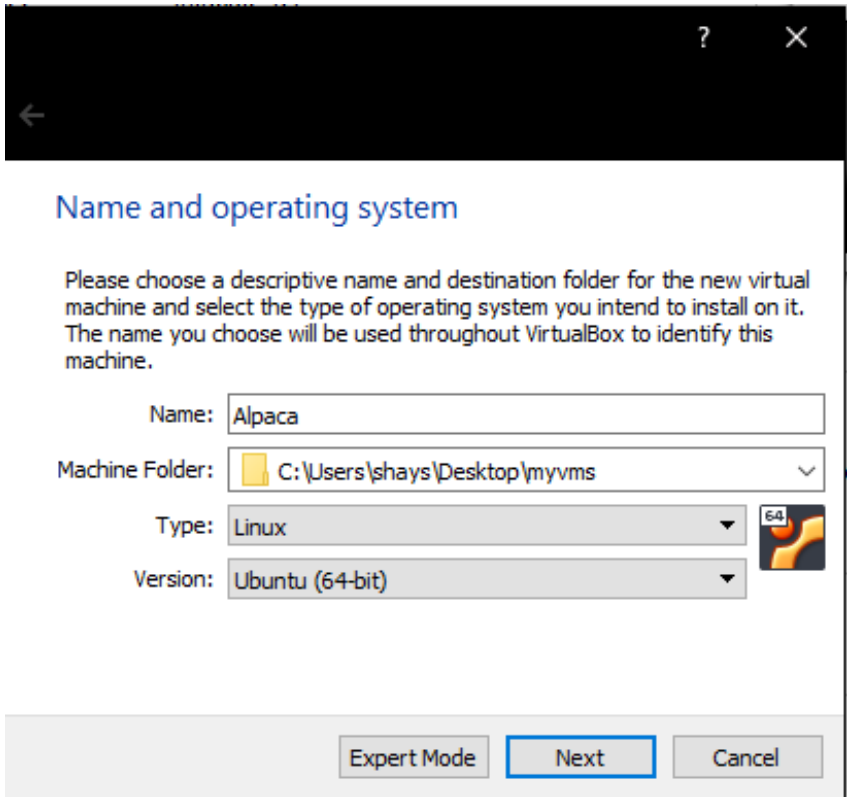
COSC301 Assignment #3

Step 1: Create a new Ubuntu 20.04 Client.



Step 2: Enter sudo

sudo -i

Step 3: Install Docker

Set up docker repository

```
sudo apt-get update

sudo apt-get install \
    ca-certificates \
    curl \
    gnupg \
    lsb-release

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

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
```

Install docker engine

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

sudo apt-get install docker-ce=5:20.10.16~3-0~ubuntu-focal docker-ce-cli=5:20.10.16~3-0~ubuntu-focal containerd.io docker-compose-plugin

Test docker

Sudo docker run hello-world

```
ubuntu@ubuntu:~$ sudo docker run hello-world

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
 1. The Docker client contacted the Docker daemon.
 2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
    (amd64)
 3. The Docker daemon created a new container from that image which runs the
    executable that produces the output you are currently reading.
 4. The Docker daemon streamed that output to the Docker client, which sent it
    to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
 $ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
 https://hub.docker.com/

For more examples and ideas, visit:
 https://docs.docker.com/get-started/
```

Step 4: Install python

apt-get install python3 python3-pip

pip3 install docker-compose

Step 5: Clone repository

Git clone https://github.com/RUB-NDS/alpaca-code.git

Step 6: Run ./setup.sh

chmod +x setup.sh

./setup.sh

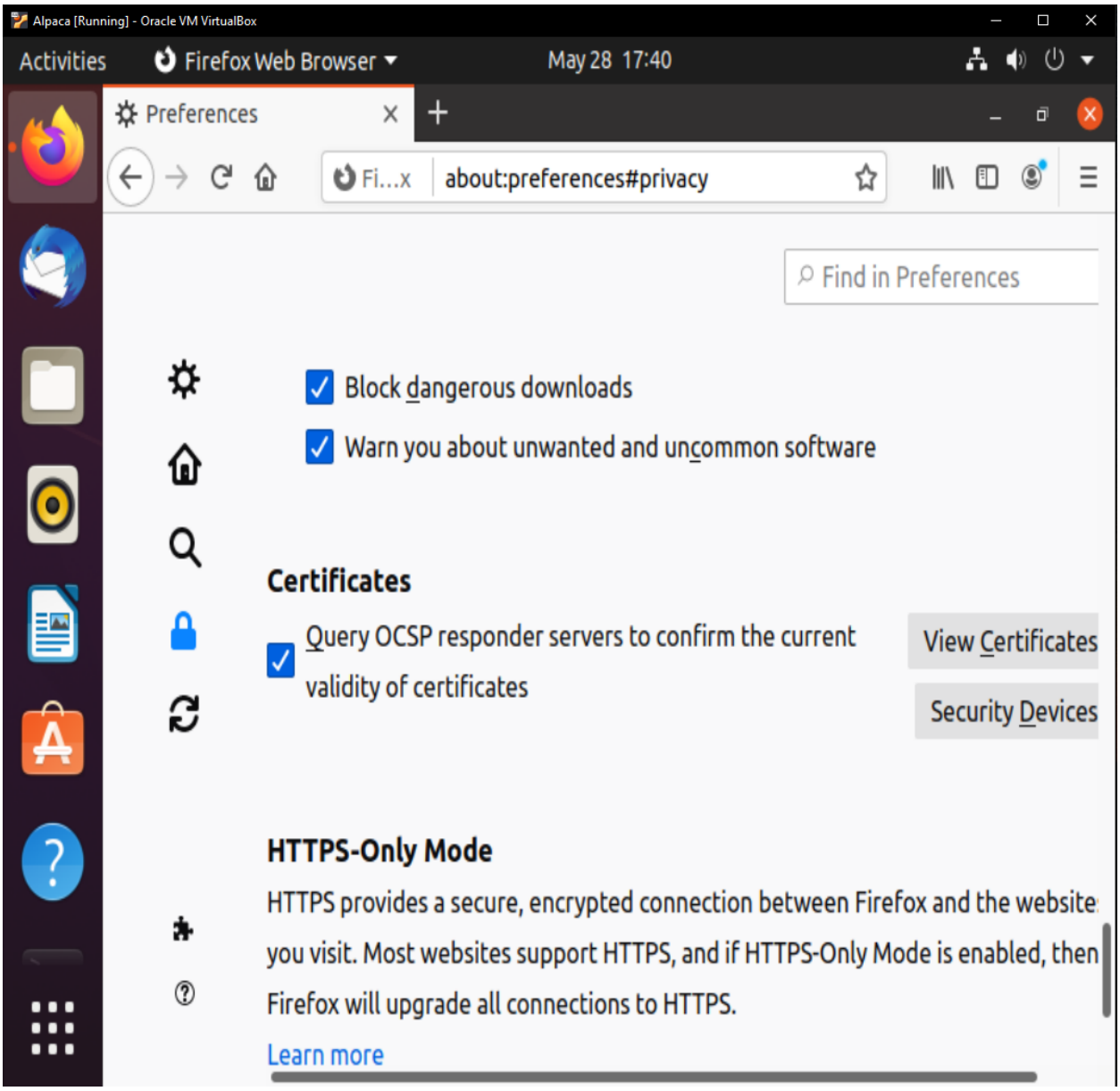
Step 7: Add ca.crt to firefox trusted CA's

Copy ca.crt to user mal since firefox doesn't run with root and give permissions

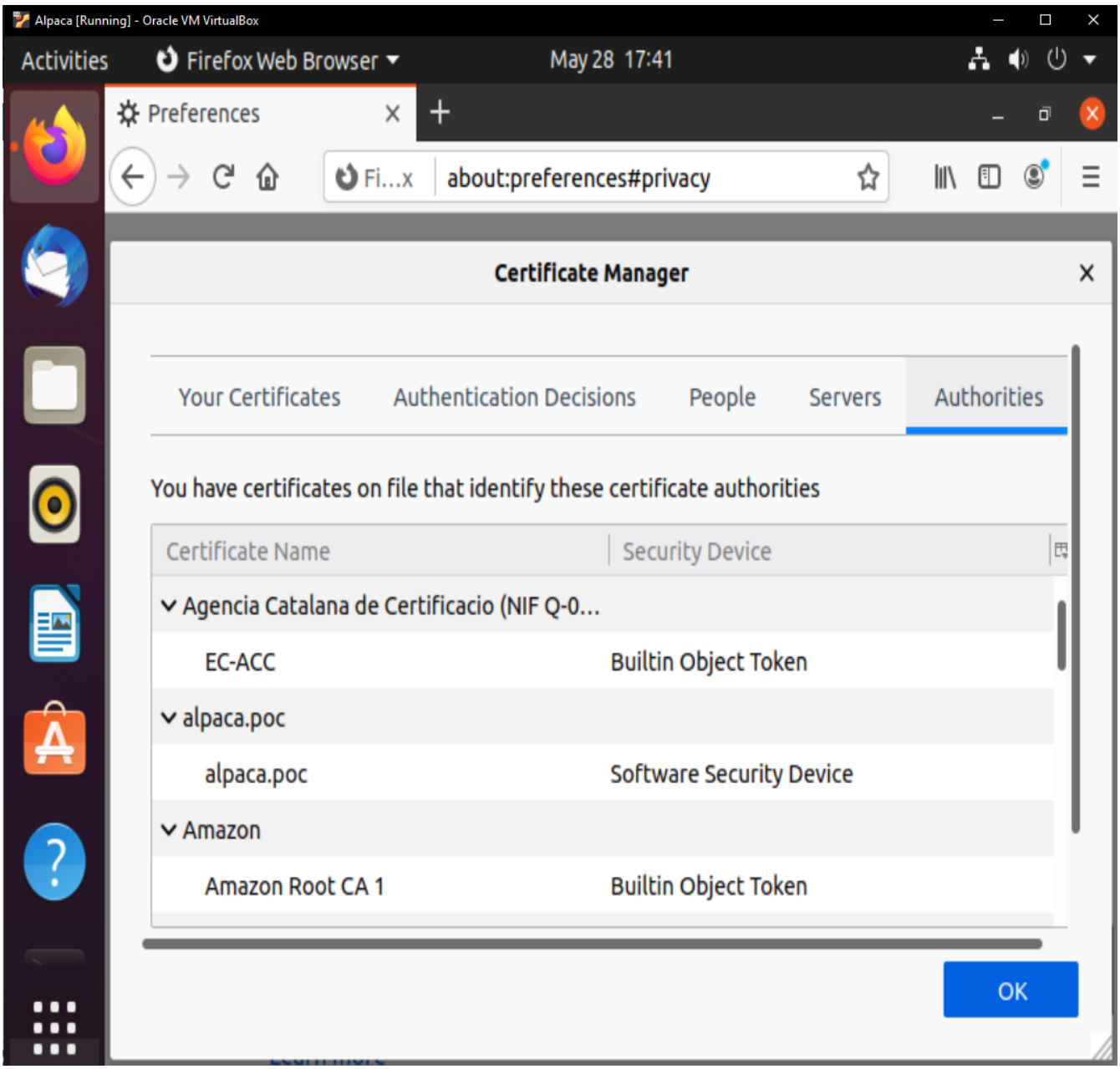
cp ./pki/ca.crt /home/mal/

chmod 775 /home/mal/ca.crt

To add ca.crt to firefox's trusted CA's go to firefox>preferences>padlock then scroll down and click "View Certificates"



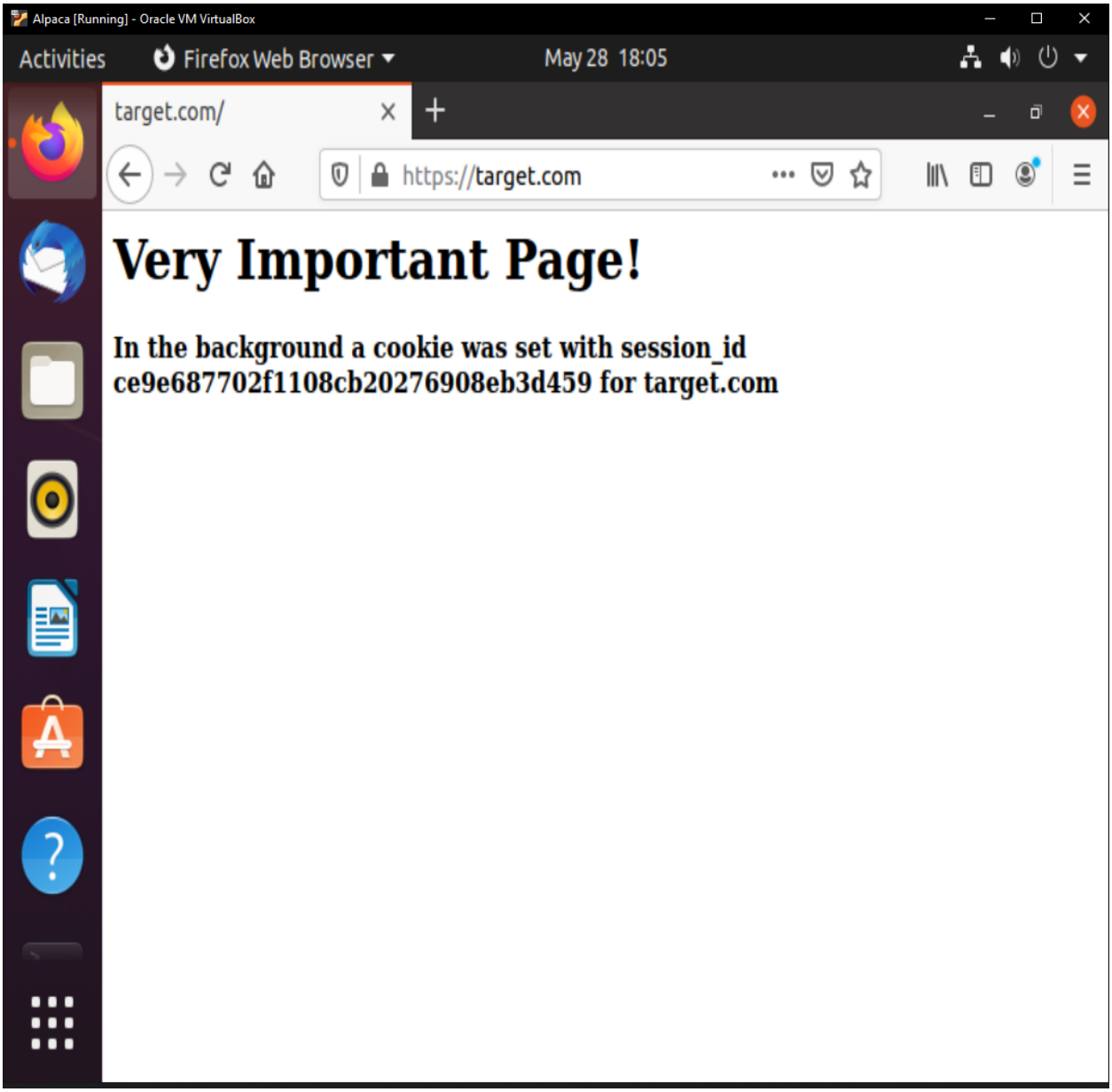
Make sure you are in the “Authorities” tab and click “import” and select ca.crt just click both boxes and click ok

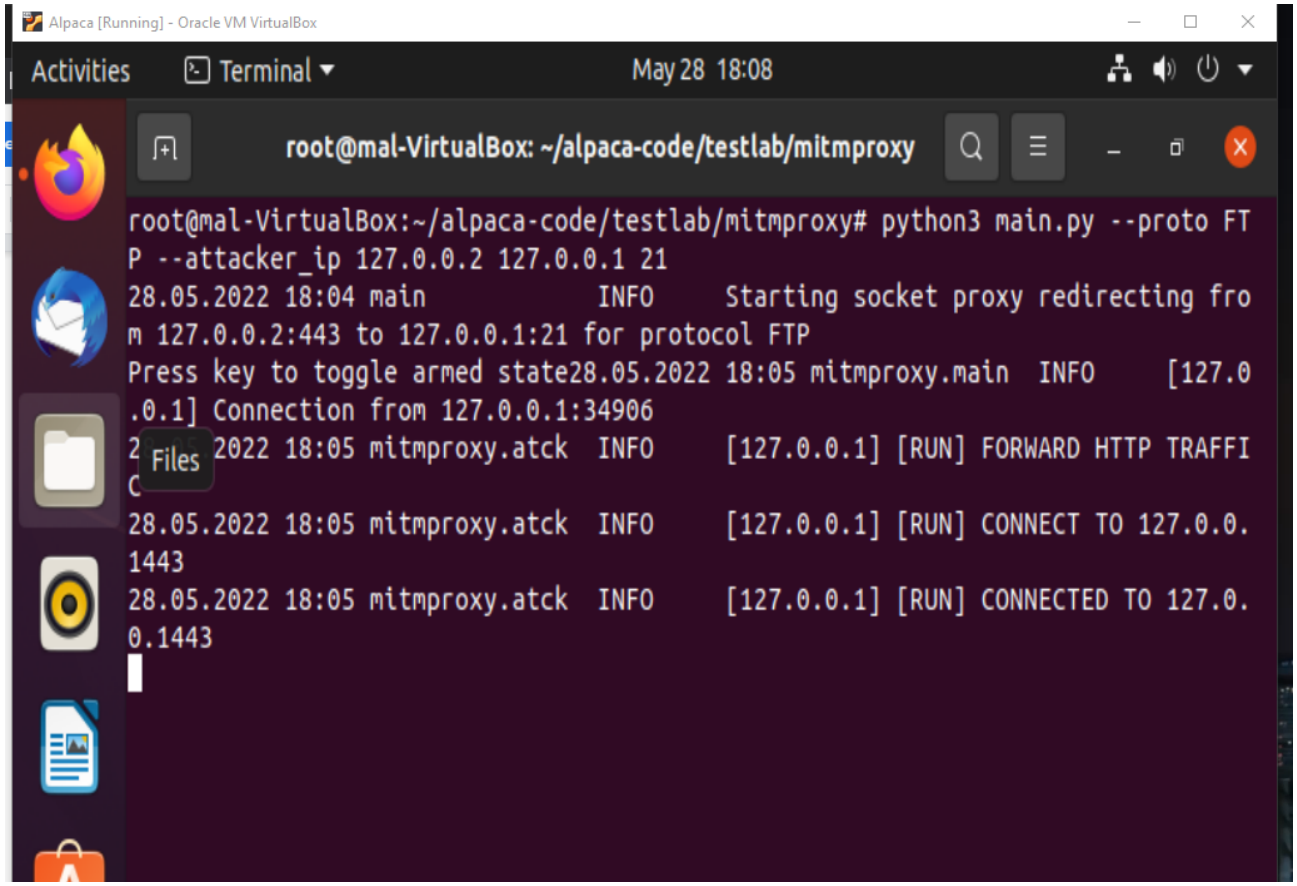


Step 8: Start docker (make sure you are in alpaca-code/testlab)
docker-compose -f servers/docker-compose.yml up -d nginx-target nginx-attacker vsftp

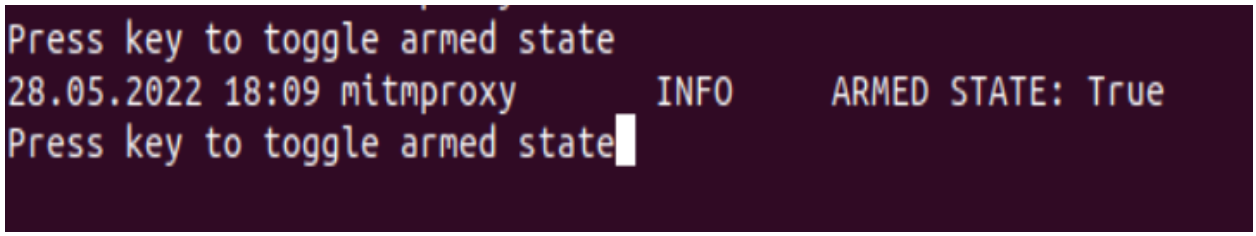
Step 9: Run the MitM-Proxy
cd mitmproxy
python3 main.py --proto FTP --attacker_ip 127.0.0.2 127.0.0.1 21

Proxy is now in unarmed mode visit https://target.com





Change Proxy to armed state



Go to https://attacker.com