

# COS432 A6 VM Guide for M1 Macs

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1. Download [UTM 2.4.1](#) and copy it to your **Applications** folder.
2. Download [cos432-a6-vm.utm.zip](#).
3. Unzip this file by double-clicking it in your filesystem. It should create another file, [cos432-a6-vm.utm](#), in the same directory. Your Download may automatically decompress so you may skip this step if this occurs.
4. Select `File -> Import Virtual Machine...`, and select the [cos432-a6-vm.utm](#) file you extracted in Step 2.
5. After the VM boots, you should be presented with the Ubuntu login screen. Log in as `student` with password `student`.
6. Running `sudo fdisk -l` should show you a 5GB disk attached at `/dev/vdb`:

```
Disk /dev/vdb: 5 GiB, 5368709120 bytes, 10485760 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: gpt
Disk identifier: C3C70CE8-7809-41C5-92EB-6ECD9A98C648

Device            Start      End Sectors  Size Type
/dev/vdb1          2048     1103871 1101824   538M EFI System
/dev/vdb2        1103872     9416703 8312832    4G Linux filesystem
/dev/vdb3          9416704    10483711 1067008   521M Linux filesystem
student@cos432-a6:~$
```

7. From here, you should be able to mount each respective disk into your filesystem. For instance:

```
# Mount disks
sudo mkdir /mnt1 && sudo mount /dev/vdb1 /mnt1
sudo mkdir /mnt2 && sudo mount /dev/vdb2 /mnt2
sudo mkdir /mnt3 && sudo mount /dev/vdb3 /mnt3
```

```
# Unmount disks
sudo umount /dev/vdb1
sudo umount /dev/vdb2
sudo umount /dev/vdb3
```

8. Once you've mounted the disk successfully, you should be able to `cd` into the mounted folder (like `cd /mnt1`) and browse it like any other directory.

## Troubleshooting

### Network is down ( `ping` doesn't work for any public IP!)

1. Run `ip a`.
  - a. There should be a network device attached with prefix `enp0s*`, like `enp0s10`.
2. Open `/etc/netplan/00-installer-config.yaml` for editing with `sudo`. The name of the device under `ethernets` should be the same as in 1.a. If it's not, edit this file so that the device name matches.
3. Run `netplan try`, and press `ENTER`.

### General VM corruption: disk boots into GRUB menu, or hangs in UTM booting screen

In this case, it's possible your disk is corrupted and we suggest you delete the VM & re-import it from the steps above. When you do this, make sure to delete all copies of the existing corrupted VM:

1. Delete from UTM (Right-click `cos432-a6-vm` in UTM and select `Delete...`)
2. Delete the both original `.zip` and extracted `.utm` file in your `Downloads` folder.

Then start again from **Step 2**.

### Any other issues?

Reach out to us on Ed!