

# Virtualizing on the M1 Macs

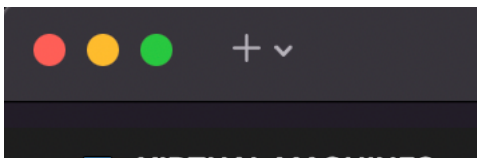
## VMware Fusion version

1. Install VMware Fusion from here:

<https://customerconnect.vmware.com/downloads/get-download?downloadGroup=FUS-PUBTP-2021H1>

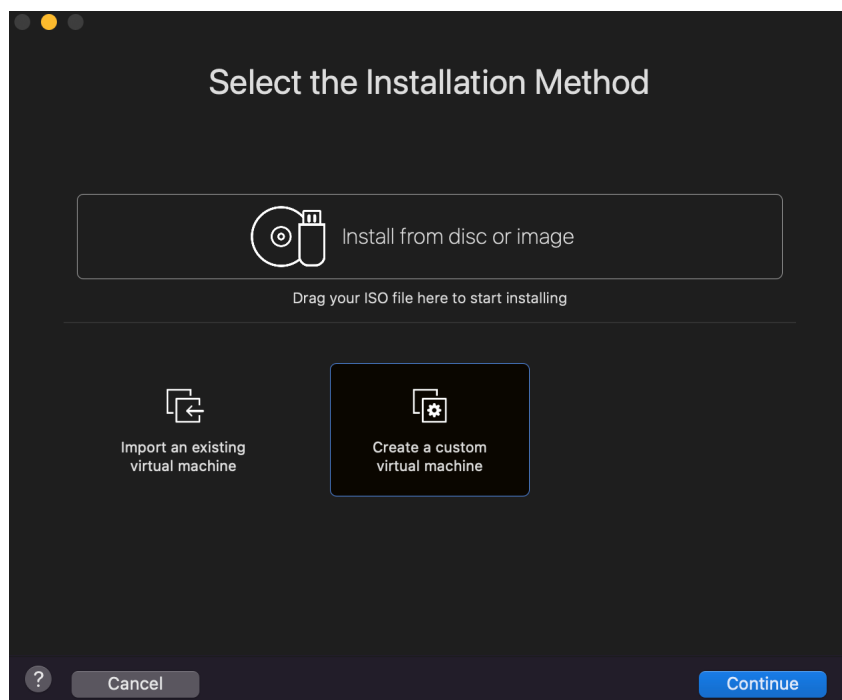
2. Install the disk image (.vmdk) from [https://studntnu-my.sharepoint.com/:u:/g/personal/shayana\\_ntnu\\_no/ETF6YhyW14pGjHc-pyKGFBsBbof7KDveipOMCM8TEs5AjQ?e=qx46PM](https://studntnu-my.sharepoint.com/:u:/g/personal/shayana_ntnu_no/ETF6YhyW14pGjHc-pyKGFBsBbof7KDveipOMCM8TEs5AjQ?e=qx46PM)

3. Open VMware Fusion, and click the “+”



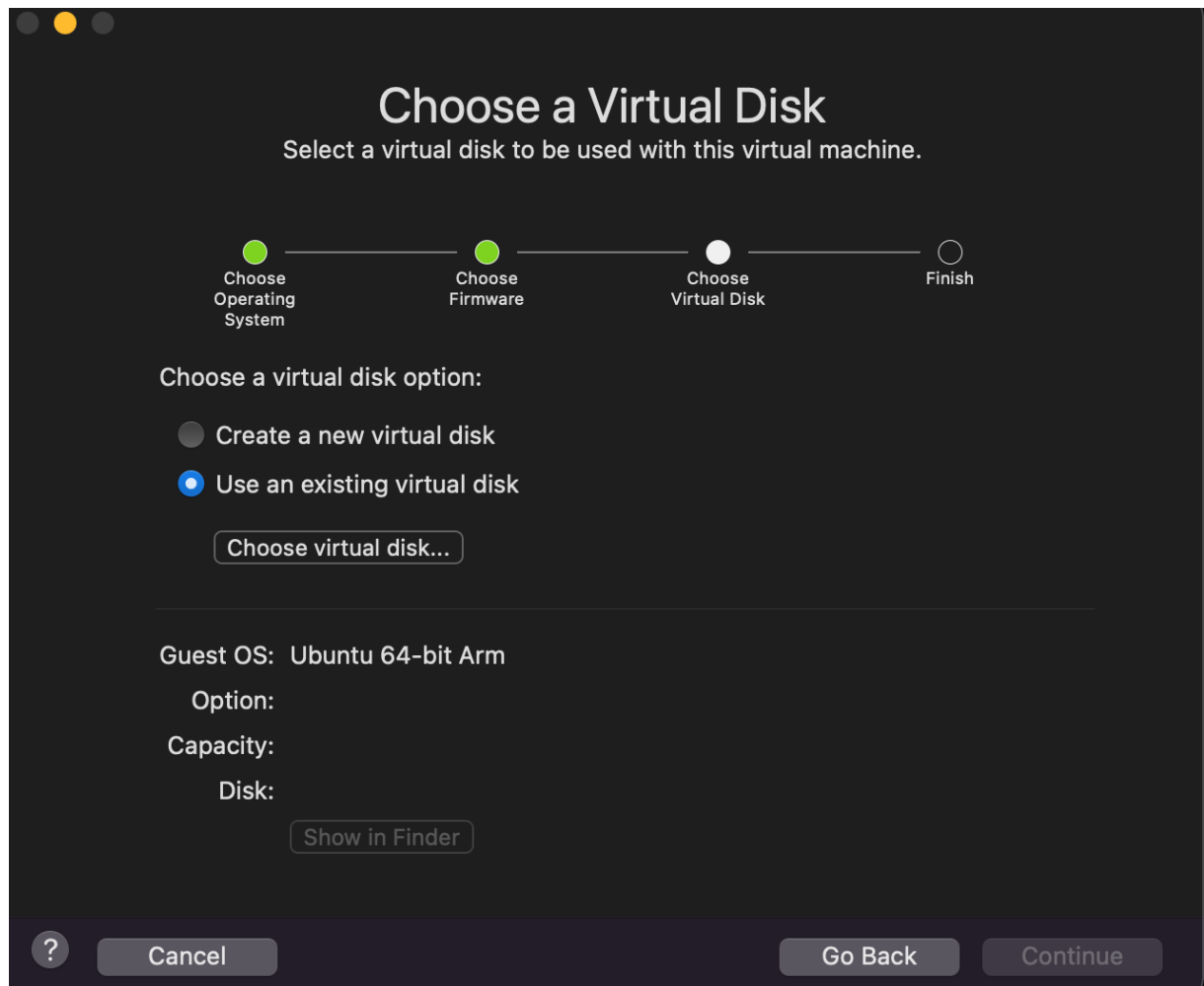
Choose “new”.

4. Click on “Create a custom virtual machine” and continue.



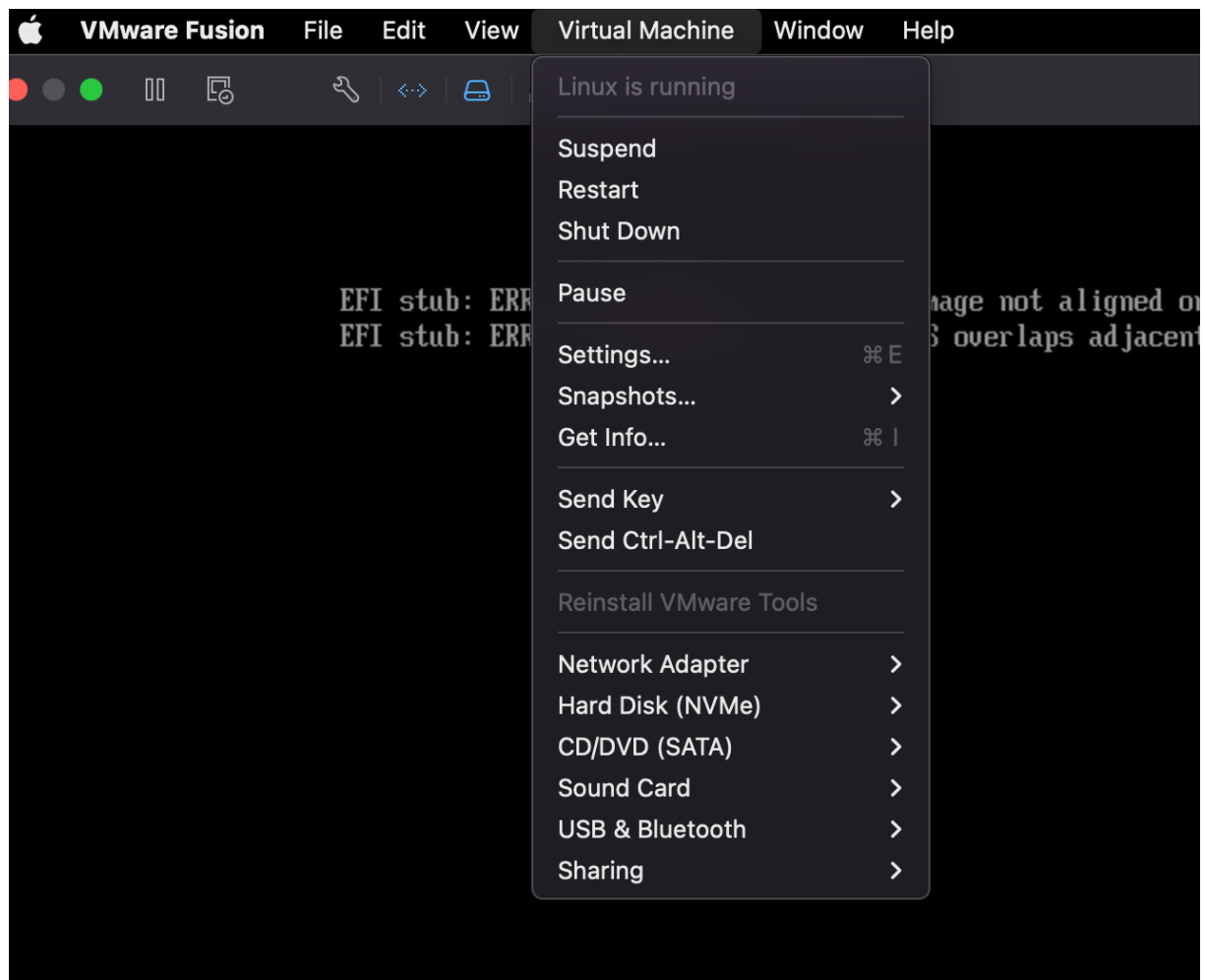
5. Choose “Ubuntu 64-bit Arm” and continue.

6. Click on “Choose an existing virtual disk”



And then “Choose virtual disk...” and choose the vmdk file you installed in step 2. Click continue, and then “finish”.

7. Boot the newly created VM and log in (password: ttm4200). When logged inn, change password (sudo passwd). Then enable shared folders by hovering your mouse to the top of the screen, clicking “Virtual Machine”, and then “Sharing”, and “Sharing settings”. You may need to click on “command”+“control” (cmd+ctrl) to escape the VM and get your mouse out of there.  
(ignore the “Shared folders will not be available in the virtual machine until VMware Tools is installed and running”- message)



8. The shared folder will be available at /mnt/hgfs/. You can create a symlink as shown in the lab pdf (`ln -s /mnt/hgfs/shared_folder shared_folder`)
9. Since there is no port forwarding enabled, you need to access the server by writing its IP (you can find it by writing “ifconfig”)

```

ens160: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.33.133 netmask 255.255.255.0 broadcast 192.168.33.255
    inet6 fe80::3448:296a:2fb3:f5f6 prefixlen 64 scopeid 0x20<link>
    ether 00:0c:29:5a:90:d1 txqueuelen 1000 (Ethernet)
    RX packets 2688 bytes 3608298 (3.6 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 513 bytes 62364 (62.3 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
    device interrupt 48 memory 0x3fa00000-3fa20000
  
```

The IP of this VM is 192.168.33.133.

Since there is no port forwarding, you can't access the jupyter lab by writing:

127.0.0.1:8888.

You need to use the IP. So, you must write: 192.168.33.133:8888

```
ttm4200@ttm4200-vim: ~  
[I 2022-01-19 02:37:47.440 LabApp] JupyterLab application directory is /usr/local/share/jupyter/lab  
[I 2022-01-19 02:37:47.442 ServerApp] jupyterlab | extension was successfully loaded.  
[I 2022-01-19 02:37:47.442 ServerApp] Serving notebooks from local directory: /home/ttm4200  
[I 2022-01-19 02:37:47.442 ServerApp] Jupyter Server 1.13.3 is running at:  
[I 2022-01-19 02:37:47.442 ServerApp] http://ttm4200-vim:8888/lab?token=00149c616e6889c0d9a87bf90ccb7d971f3f55b8c580124c  
[I 2022-01-19 02:37:47.442 ServerApp] or http://127.0.0.1:8888/lab?token=00149c616e6889c0d9a87bf90ccb7d971f3f55b8c580124c  
[I 2022-01-19 02:37:47.442 ServerApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).  
[C 2022-01-19 02:37:47.444 ServerApp]  
  
To access the server, open this file in a browser:  
file:///home/ttm4200/.local/share/jupyter/runtime/jpserver-2606-open.html  
  
Or copy and paste one of these URLs:  
http://ttm4200-vim:8888/lab?token=00149c616e6889c0d9a87bf90ccb7d971f3f55b8c580124c  
or http://127.0.0.1:8888/lab?token=00149c616e6889c0d9a87bf90ccb7d971f3f55b8c580124c
```

http://192.168.33.133:8888/lab?token=00149c616e6889c0d9a87bf90ccb7d97' ↻

Quick info:

The git repo is already cloned to the VM instance, so you don't need to clone it! (its located in your home folder)