Advanced OS

Labe 6

The Linux Kernel

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- I already Downloaded The most Stable Linux Kernel (6.9.3) on windows OS
  So, let's just paste it in my upuntu Linux 😁

The problem is I don't have User interface in my upuntu so to copy the file from windows to VM I used sftp (Secure file transfer Protocol)

```
C:\Users\kheder\Downloads>sftp kheder@192.168.184.132
kheder@192.168.184.132's password:
Connected to 192.168.184.132.
sftp> put linux-6.9.3.tar.xz
Uploading linux-6.9.3.tar.xz to /home/kheder/linux-6.9.3.tar.xz
linux-6.9.3.tar.xz
sftp>
```

- Now let's copy file from home/kheder To usr/src :

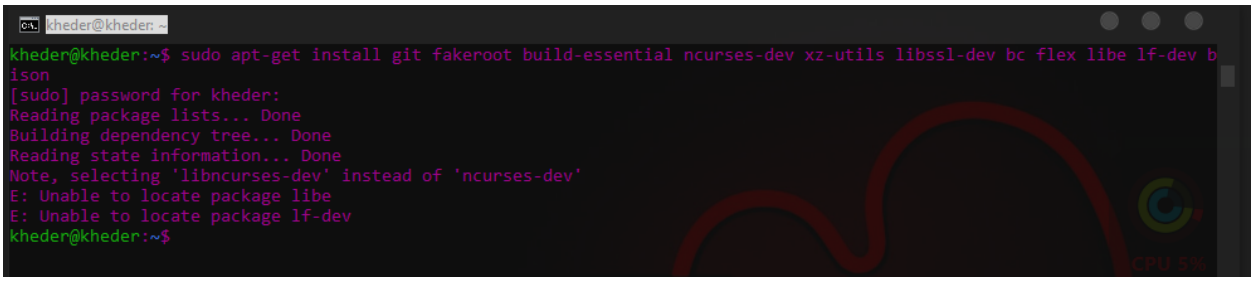
```
root@kheder:/home/kheder# ls
docker  linux-6.9.3.tar.xz
root@kheder:/home/kheder# sudo cp linux-6.9.3.tar.xz  /usr/src
```

- Look how much it's pretty 😻

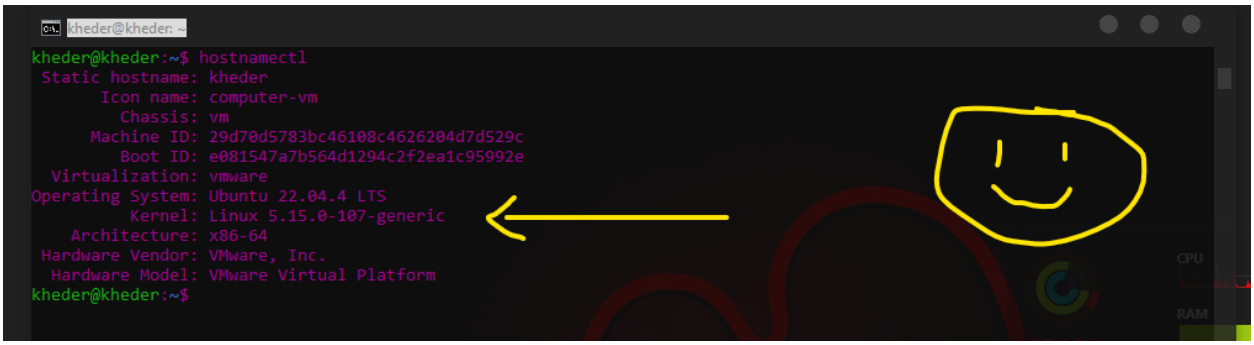
```
root@kheder:/usr/src# ls -l
total 140680
-rw-r--r--  1 root root 144036552 Jun 22 07:20 linux-6.9.3.tar.xz
drwxr-xr-x 25 root root      4096 Jun  4 00:13 linux-headers-5.15.0-107
drwxr-xr-x  7 root root      4096 Jun  4 00:14 linux-headers-5.15.0-107-generic
drwxr-xr-x 25 root root      4096 Jun 22 07:07 linux-headers-5.15.0-112
drwxr-xr-x  7 root root      4096 Jun 22 07:07 linux-headers-5.15.0-112-generic
root@kheder:/usr/src#
```

- To continue installing we have to install some packages (it doesn't exist in my upuntu 64 😢)

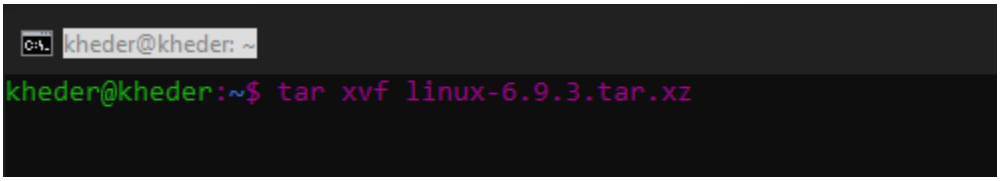
⚠ **But firstly Because I can’t Past any command in my stupid Upuntu I use ssh to connect it from my windows 😐😐**



- Now Let’s see the old Kernel Version 💻



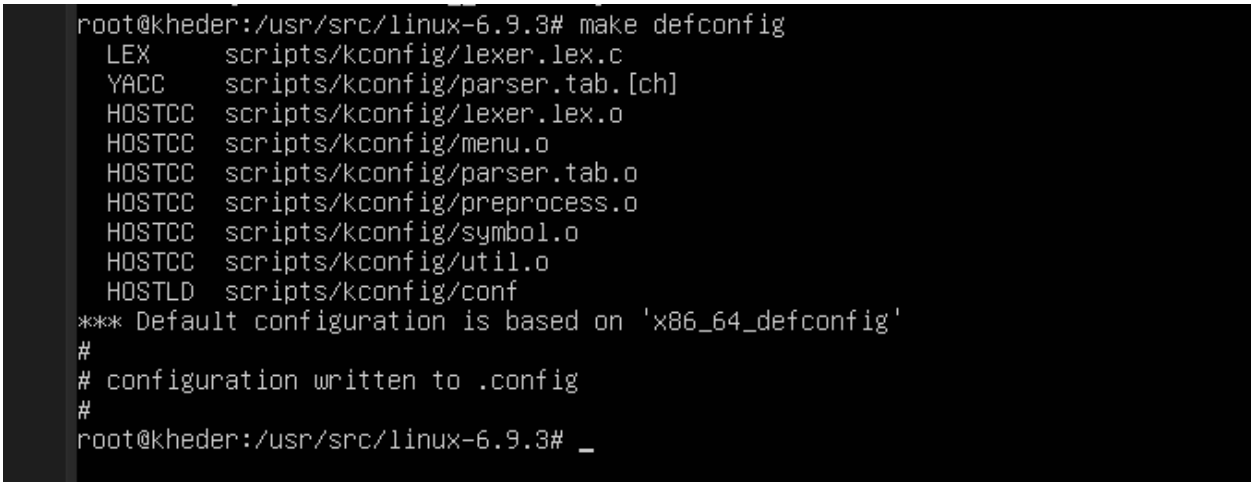
- Extract the new kernel file



- I will use default configuration for installation because manually confiq will take hours just pressing enter and yes / no 🙄😁

  ⚠ (This is advice from Amir)

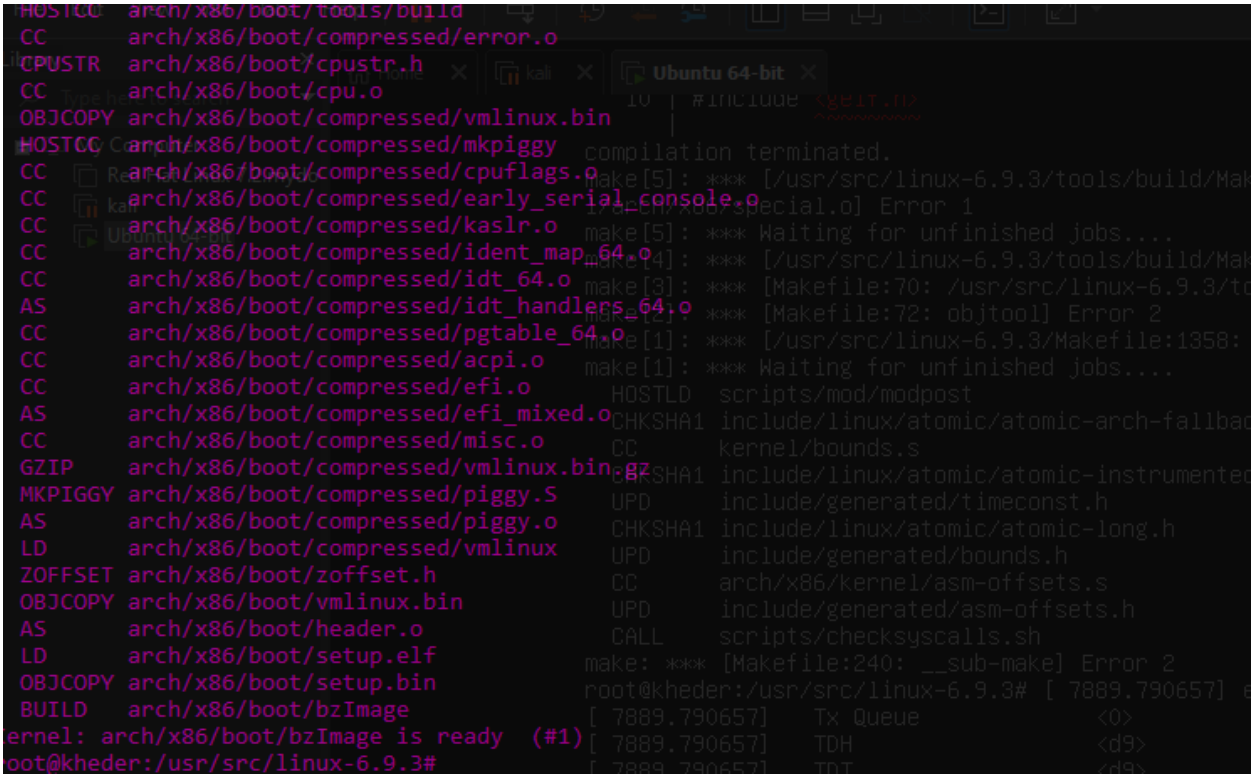
- And now I return to the local terminal because ssh stop working 😬



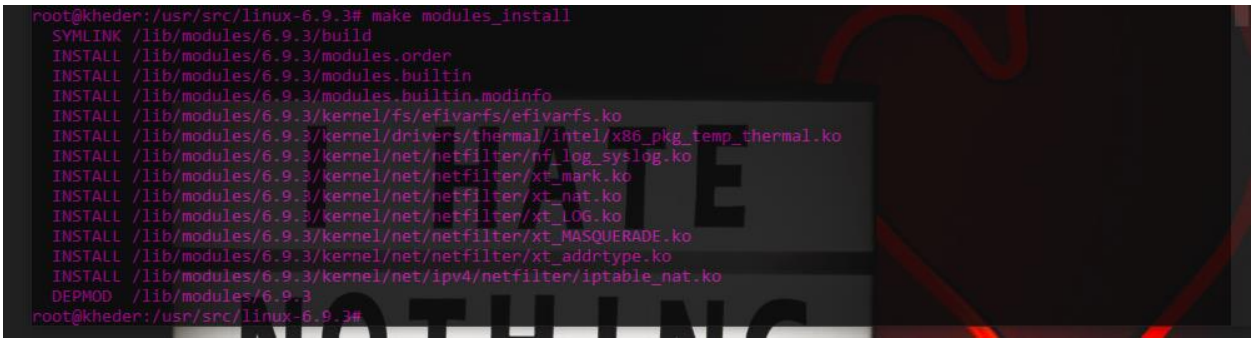
- Now let’s compile it 💔

After run “ make ” command and waiting about one hour finally

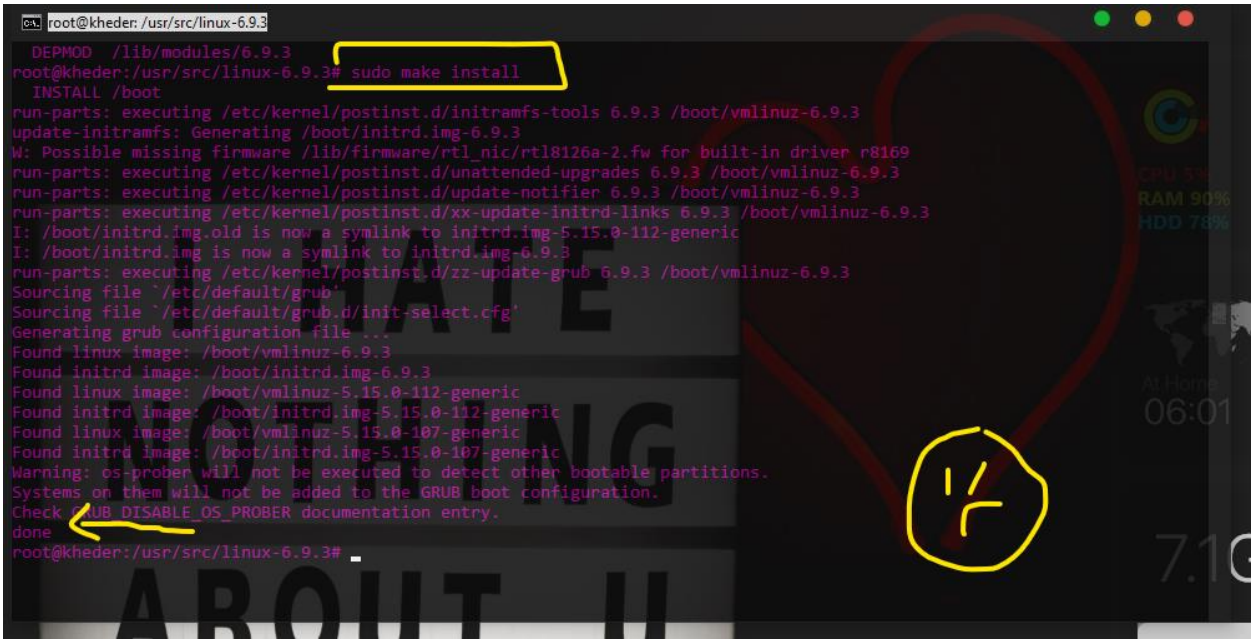
The kernel compiled 😁🥰



- Now let’s install the required modules

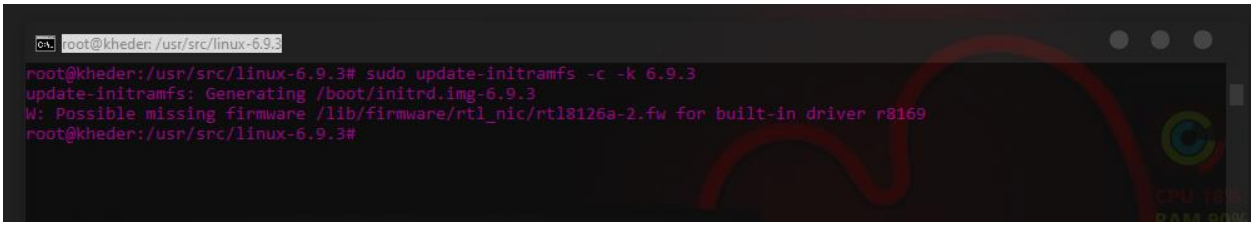


- Then we will install kernel



- Then just enable the new kernel

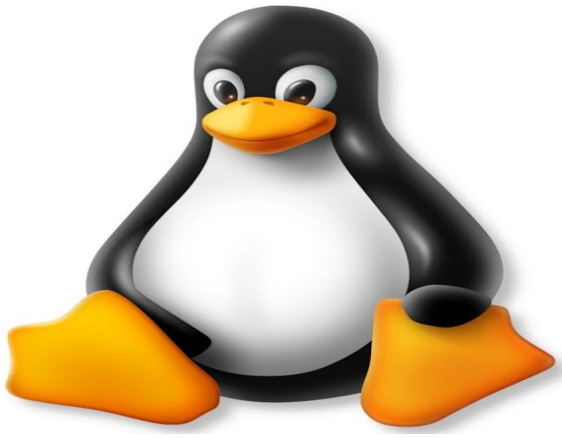
sudo update-initramfs -c -k 6.9.3



- So now let’s reboot 😁

After reboot its work but it just a kernel I cannot do so much things 🙄

🥰🥰🥰



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