Install Ubuntu/Linux

Target

1. Install Ubuntu on VirtualBox

2. Write a 'hello world' program with c

Tools

VirtualBox

VirtualBox 7.0.20

[VirtualBox](https://www.oracle.com/virtualization/virtualbox/, https://www.virtualbox.org/wiki/Downloads, https://www.virtualbox.org/)

1. VirtualBox 7.0.20 platform packages
2. VirtualBox 7.0.20 Oracle VM VirtualBox Extension Pack
    1. Must be loaded
3. sha256sums: sha256sum.exe VirtualBox-7.0.20-163906-Win.exe d750fb17688d70e0cb2d7b06f1ad3a661303793f4d1ac39cfa9a54806b89da25 *Oracle_VM_VirtualBox_Extension_Pack-7.0.20-163906.vbox-extpack d750fb17688d70e0cb2d7b06f1ad3a661303793f4d1ac39cfa9a54806b89da25 *Oracle_VM_VirtualBox_Extension_Pack-7.0.20.vbox-extpack 0b7220e6faa010fa7f59a7d234cf80c70bb93f023e636ff9f6d692c637ba606a *SDKRef.pdf cd25f171445f6037e69d3ed1e194aebfd08006c8dd343d3481f6f65526992803 *UserManual.pdf 4c7523fa6d17436e3b7788f62956674270572cfefa340d03111b85f8517d5981 *VBoxGuestAdditions_7.0.20.iso fa3544162eee87b660999bd913f76ccb2e5a706928ef2c2e29811e4ac76fb166 *VirtualBox-7.0.20-163906-Win.exe 5cf5979bef66ebab3fcd495796b215a940e8a07c469d4bc56d064de44222dd02 *VirtualBox-7.0.20.tar.bz2 2061dc126059fe74c2a3432d58ab8d62f58519c655642d79206e2169aff6c6a1 *VirtualBoxSDK-7.0.20-163906.zip

Ubuntu

Ubuntu 24.04.1 LTS (Noble Numbat)

[Ubuntu] (https://ubuntu.com/download/desktop)

[Ubuntu] (https://ubuntu.com/download/desktop/thank-you?version=24.04.1&architecture=amd64&lts=true)

How to do

0. Download and verify the ISO: ubuntu-24.04.1-desktop-amd64.iso

```
$ sha256sum.exe ubuntu-24.04.1-desktop-amd64.iso
c2e6f4dc37ac944e2ed507f87c6188dd4d3179bf4a3f9e110d3c88d1f3294bdc *ubuntu-24.04.1-
```

```
desktop-amd64.iso
$ md5sum.exe ubuntu-24.04.1-desktop-amd64.iso
8c651682056205967d530697c98d98c3 *ubuntu-24.04.1-desktop-amd64.iso
$
```

1. Create a virtual machine

- Virtual Disk: >=60GB
- Network: NAT

2. Install Ubuntu

- UserName: Your Name + Your Student ID
  - example: LXD001
- Support Network
- **安装时不要动态更新软件包**

3. Post-Install Ubuntu

3.1 Update the Ubuntu online

```
sudo apt-get update
sudo apt-get upgrade
```

3.2 **Insert Guest Addtional CD Image to install enhanced drivers for Guest Ubuntu** 3.3 执行如下命令，并重启动操作系统

```
sudo usermod -a -G vboxsf YourUserName
Sudo reboot
```

4. Using Ubuntu

常见命令

```
who
pwd
ls
cd ..
date
cat
```

5. Using Ubuntu and Write the first c program on Ubuntu

5.1 Install GCC

```
sudo apt-get install build-essential
```

5.2 **Write "Hello world" Program with c : hello.c**

Please to say: Hello World, Hello Your Instructor, Hello Yourself

5.3 Compile the program

```
gcc -o hello  hello.c
```

5.4 Execute the program

```
./hello
```

5.5 write your report summarizing the installation process of OS