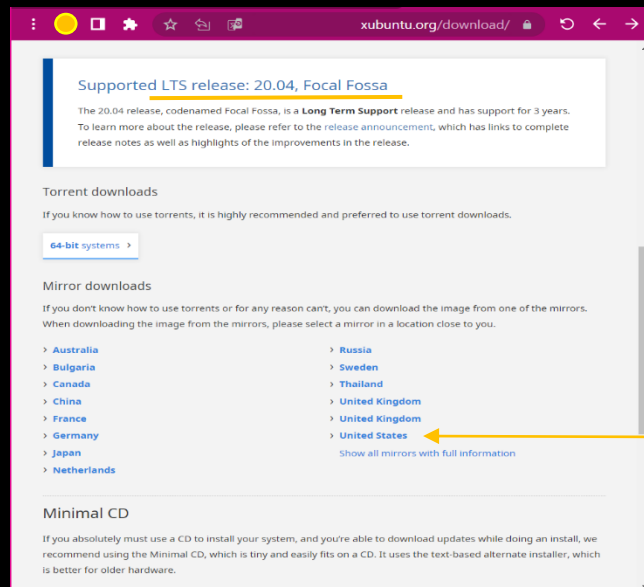


Install xubuntu and ROS 2 on it :

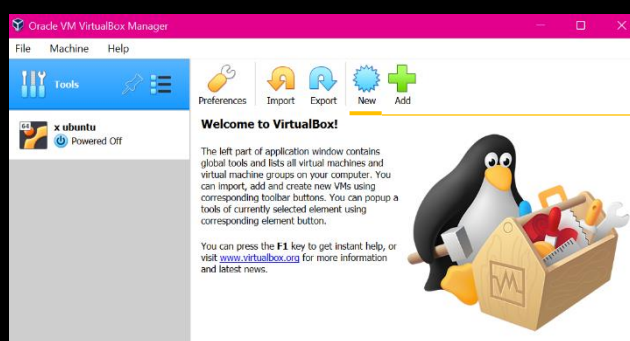
- ▽ Go to <https://xubuntu.org/download/>
- ▽ Scroll down the page under release: 20.04 and select **united states**



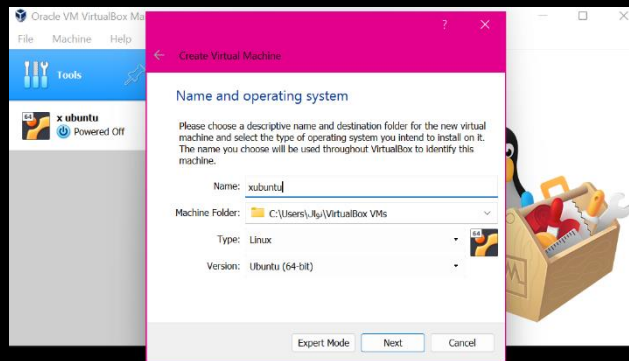
- ▽ Select:



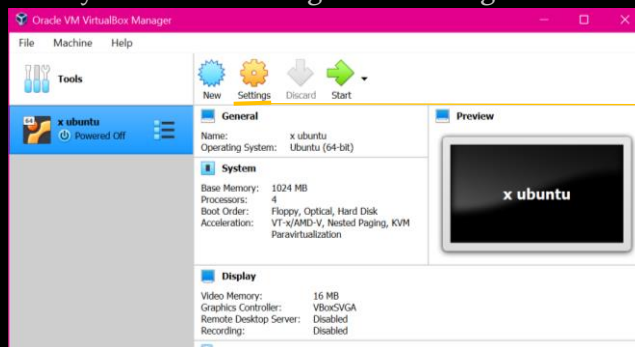
- ▽ Open VM VirtualBox manager then select NEW:



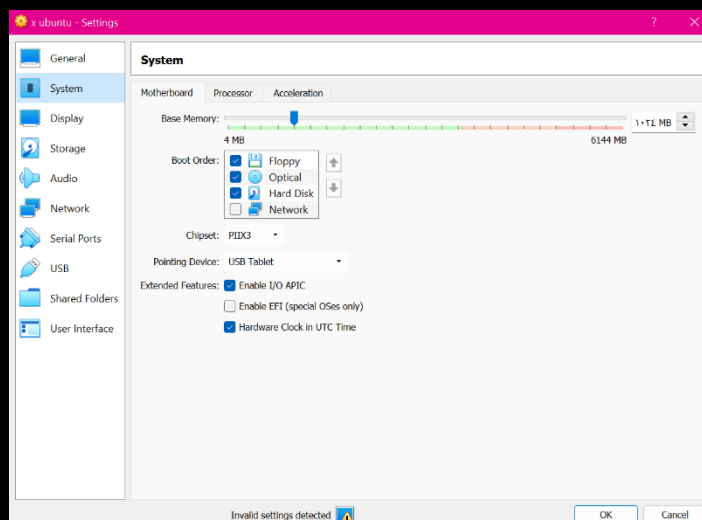
- ▽ Write Xubuntu in the name then the type and the version will be directly selected if not you have to change the type to Linux and the version it's up to your laptop if it's (64-bit) or (32-bit):

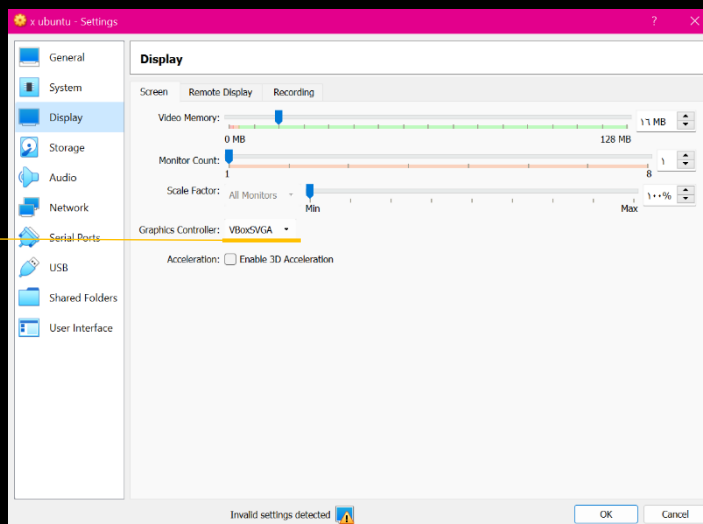
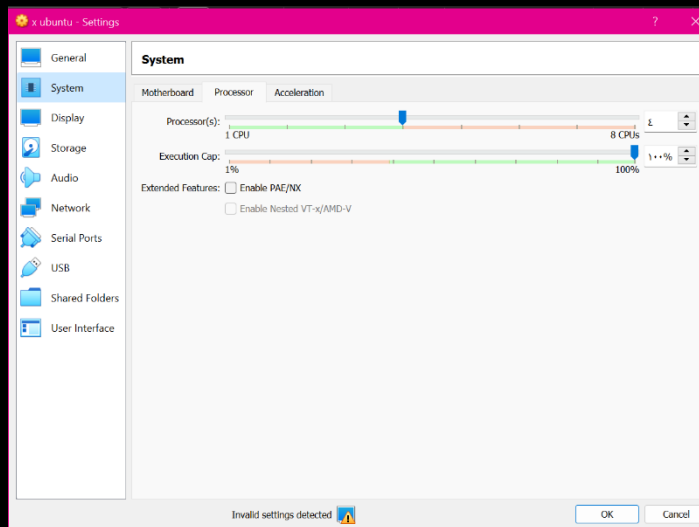


- ▽ After you create the file go to its setting:

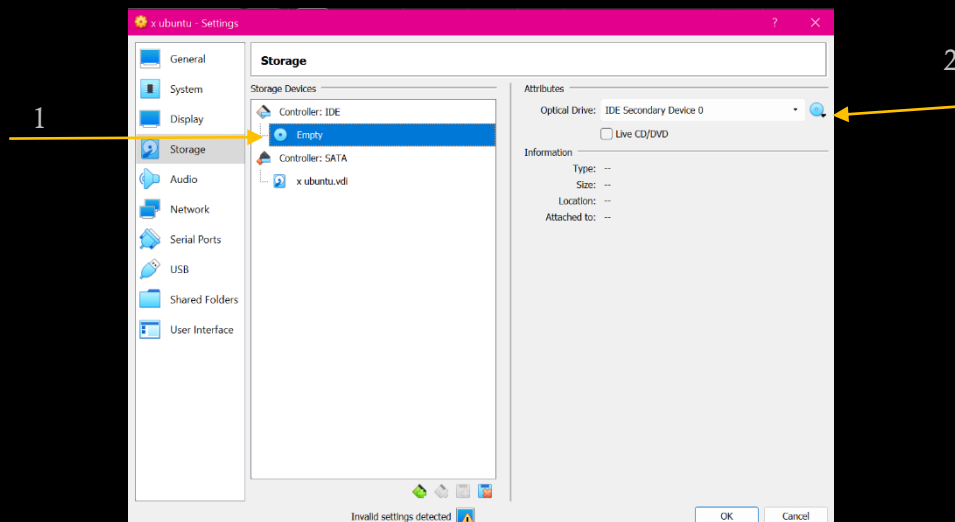


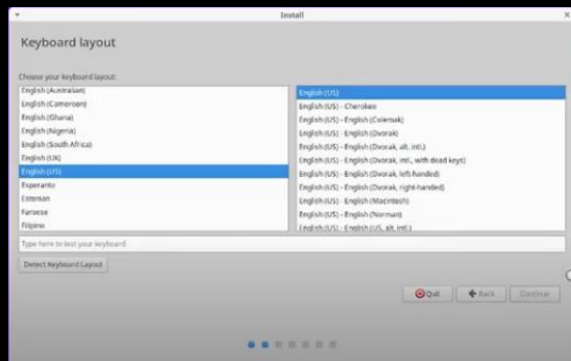
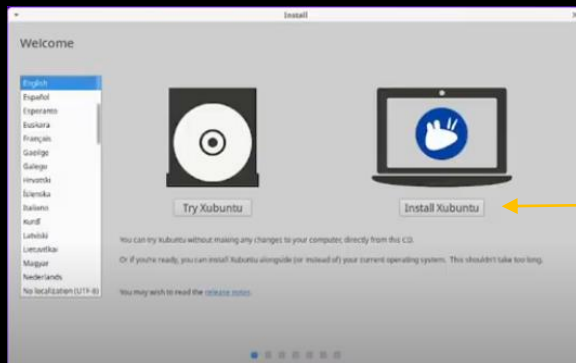
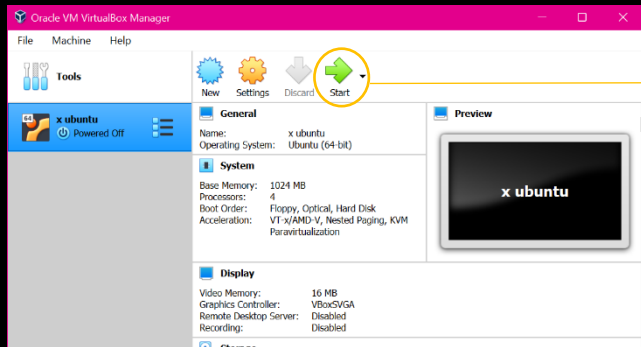
- ▽ and this is my setting that worked with me but you can choose different setting that are good for your laptop state:



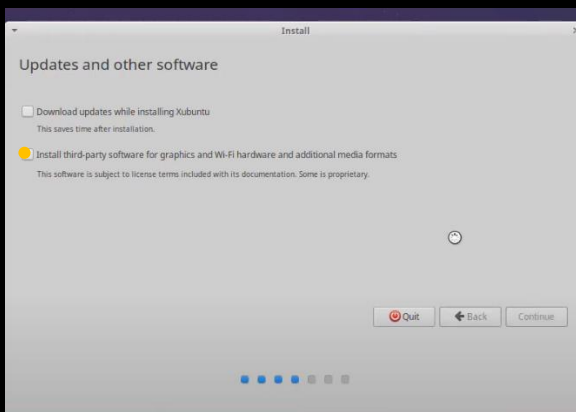


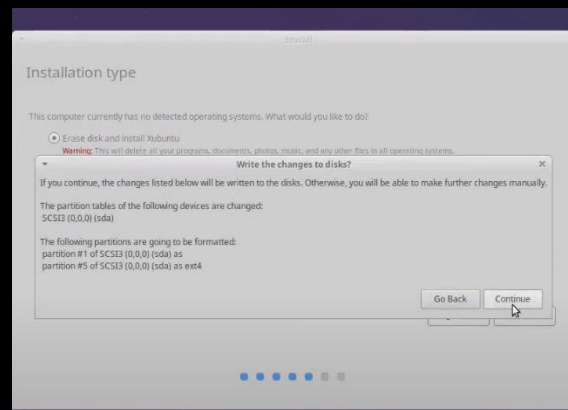
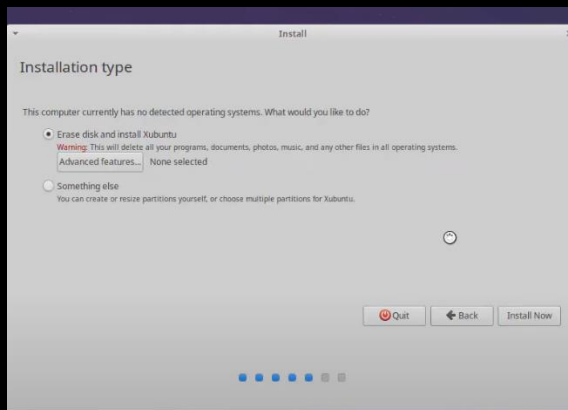
Here in step 2 you are going to select the package of xubuntu that we had install before:



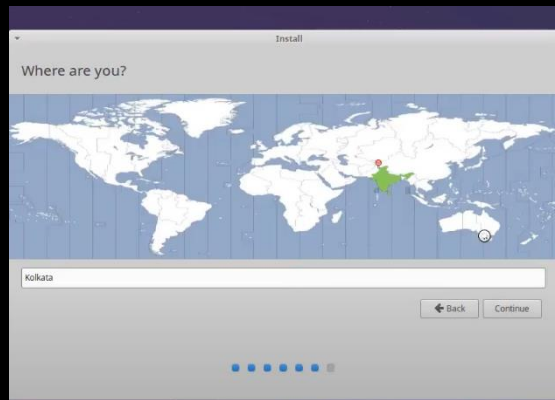


I just select the second one it is up to you:

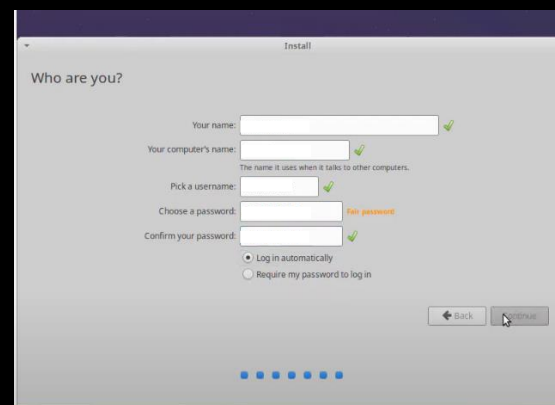


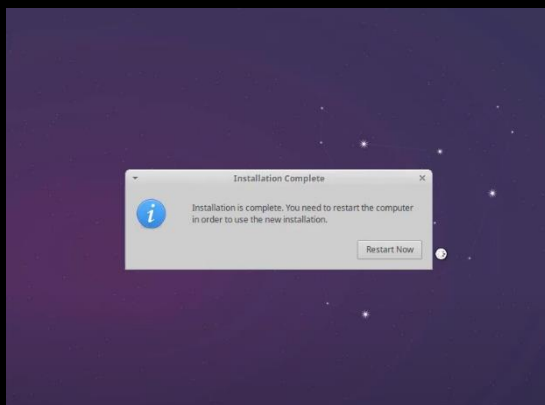


here select your country:



type your information:

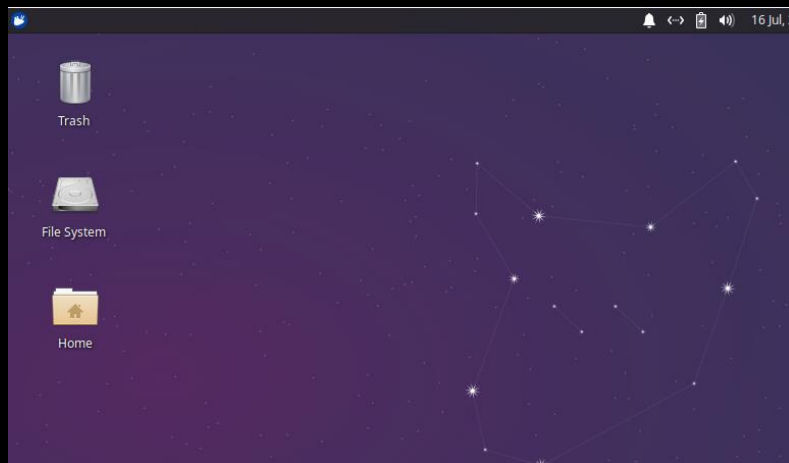




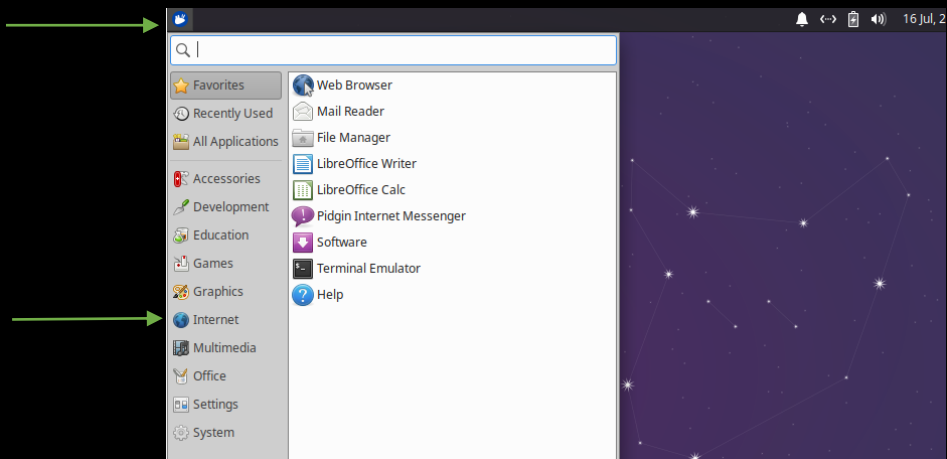
Please remove the installation medium, then press ENTER:

2

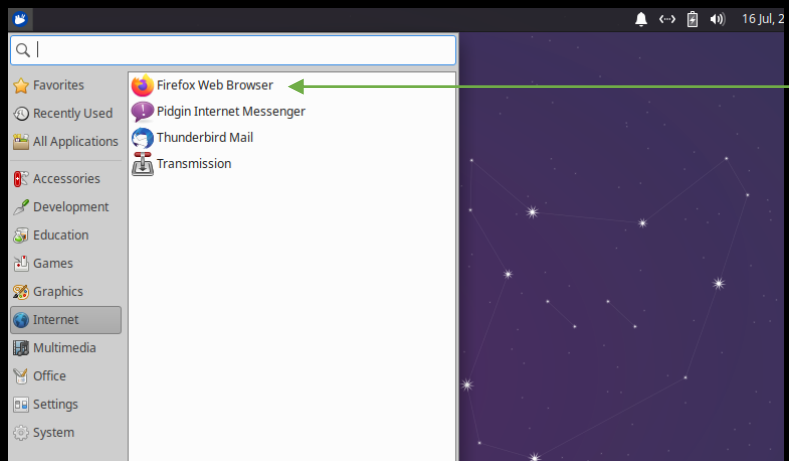
▽ now **Xubuntu** is working let us install **ROS 2** on it:



▽

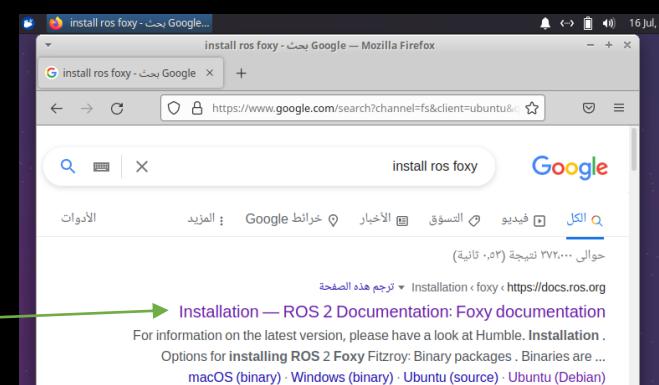


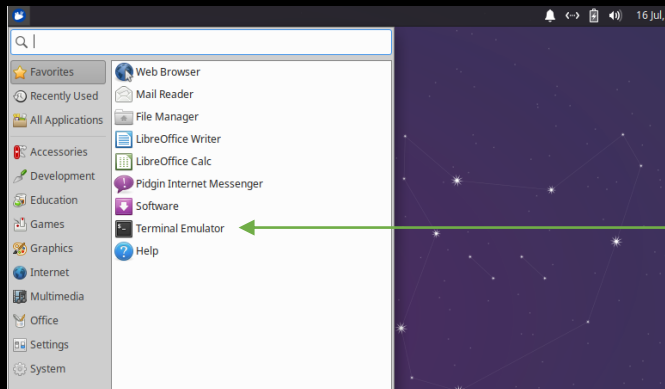
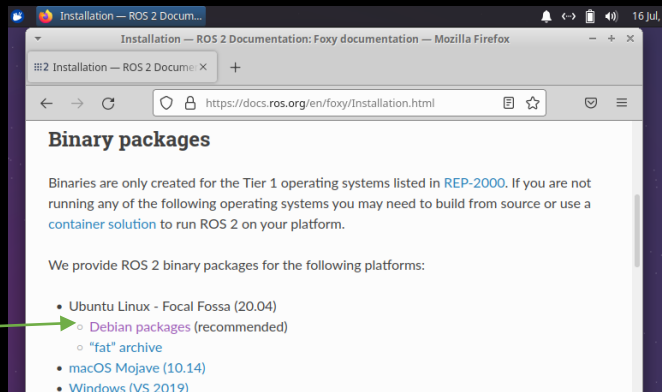
▽



▽ Search on **install ros foxy**:

▽





▽ The Commands to install ROS 2 are:

▽ Set locale:

locale # **check for UTF-8**

```
sudo apt update && sudo apt install locales
```

```
sudo locale-gen en_US en_US.UTF-8
```

```
sudo update-locale LC_ALL=en_US.UTF-8 LANG=en_US.UTF-8
```

```
export LANG=en_US.UTF-8
```

locale # **verify settings**

▽ Setup Sources:

1- `sudo apt update && sudo apt install curl gnupg2 lsb-release`

2- `sudo curl -sSL`

```
https://raw.githubusercontent.com/ros/rosdistro/master/ros.key -o
/usr/share/keyrings/ros-archive-keyring.gpg
```

3- `echo "deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/ros-archive-keyring.gpg] http://packages.ros.org/ros2/ubuntu $(source /etc/os-release && echo $UBUNTU_CODENAME) main" | sudo tee /etc/apt/sources.list.d/ros2.list > /dev/null`

▽ Install ROS 2 packages:

```
sudo apt update
```

▽ Desktop Install (Recommended): ROS, RViz, demos, tutorials:

```
sudo apt install ros-foxy-desktop
```

▽ Environment setup:

- 1- `source /opt/ros/foxy/setup.bash`
- 2- `gedit ~/.bashrc`
- 3- copy this command `source /opt/ros/foxy/setup.bash` and paste it at the end of the page that shown

▽ type **ros2 run**

