Guidelines to install ROS noetic on ubuntu 20.04

إرشادات توجيهية لتحميل ROS noetic على نظام ubuntu 20.04

1. ROS installation

1. copy the single line shown below and paste it on the terminal.

يجب عليك نسخ الأمر التالي ولصقه في terminal .

```
wget -c https://raw.githubusercontent.com/qboticslabs/ros_install_noetic/master/ros_install_noetic.sh && chmod +x ./ros_install_noetic.sh && ./ros_install_noetic.sh
```

```
raghad@raghad-VirtualBox:~$ wget -c https://raw.githubusercontent.com/qboticslab
s/ros_install_noetic/master/ros_install_noetic.sh && chmod +x ./ros_install_noet
ic.sh && ./ros_install_noetic.sh
```

In this step, it should ask you for your password to start the installation.

Note: the password will not be shown as you type it for security reasons.

في هذه الخطوة, سيُطلب منك كتابة رقمك السري لبدء التحميل.

ملاحظة: الرقم السري لن يكون ظاهرًا لك أثناء كتابته لأسباب أمنية.

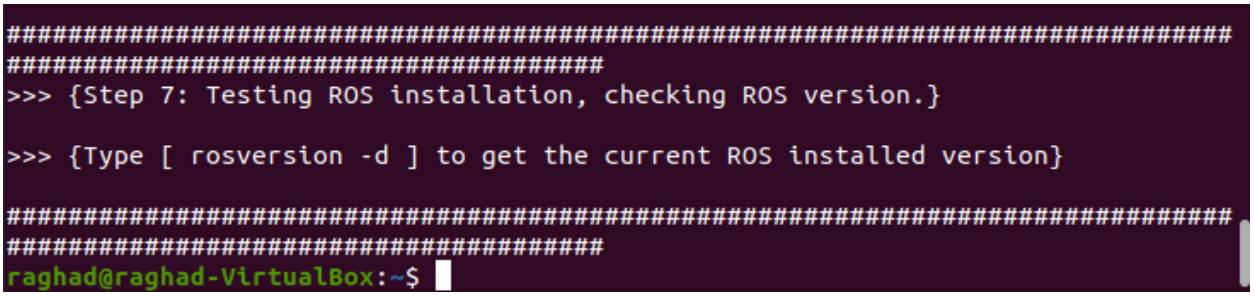
2. you can now choose which ROS installation you want, you can choose the recommended which is number 1.

يمكنك الآن اختيار تحميل ROS الذي ترغب به, يمكنك اختيار رقم 1 وهو المقترح لك.

```
>>> {Step 5: Install ROS, you pick how much of ROS you would like to install.}
    [1. Desktop-Full Install: (Recommended) : Everything in Desktop plus 2D/3D simulators and 2D/3D perception p
ges ]

    [2. Desktop Install: Everything in ROS-Base plus tools like rqt and rviz]

    [3. ROS-Base: (Bare Bones) ROS packaging, build, and communication libraries. No GUI tools.]

Enter your install (Default is 1):1
################################################################################################################
```

Installation may take a few minutes, then it should look like the following image.

التحميل قد يستغرق عدة دقائق, ثم سيظهر لك مثل الصورة التالية عند الانتهاء.

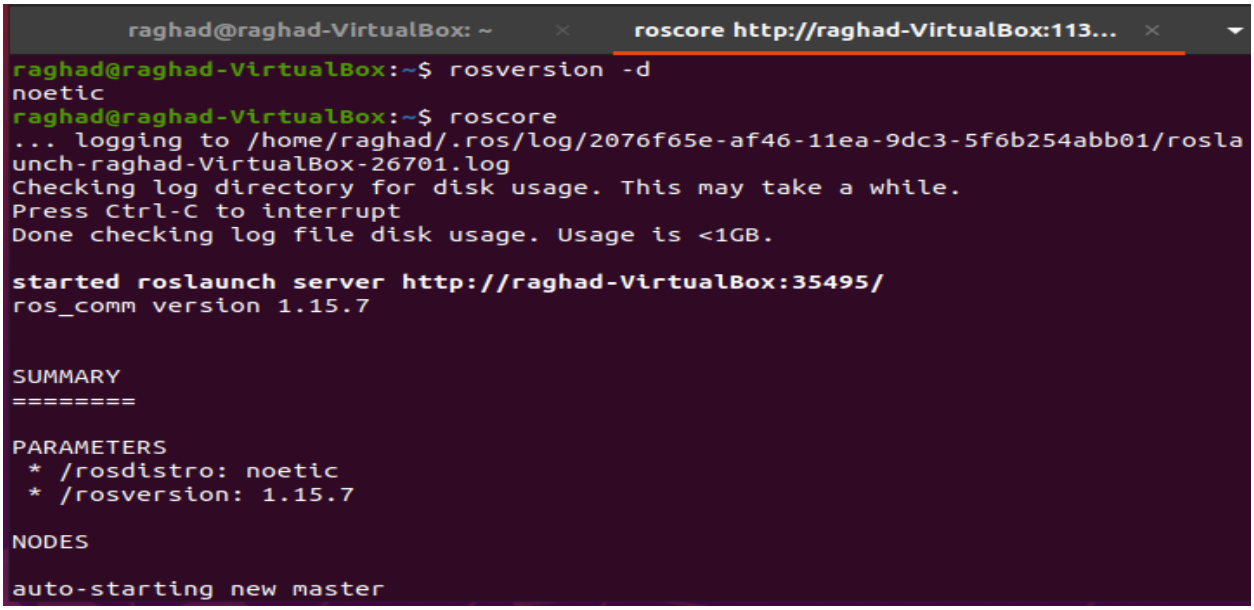


3. You can now run the following commands to see if the installation was successful.

يمكنك الآن استعمال الأوامر التالية للتأكد من نجاح التحميل.

rosversion -d

roscore



note: if it says unknown instead of noetic when running the rosversion -d line, try and open a new terminal and test it again.

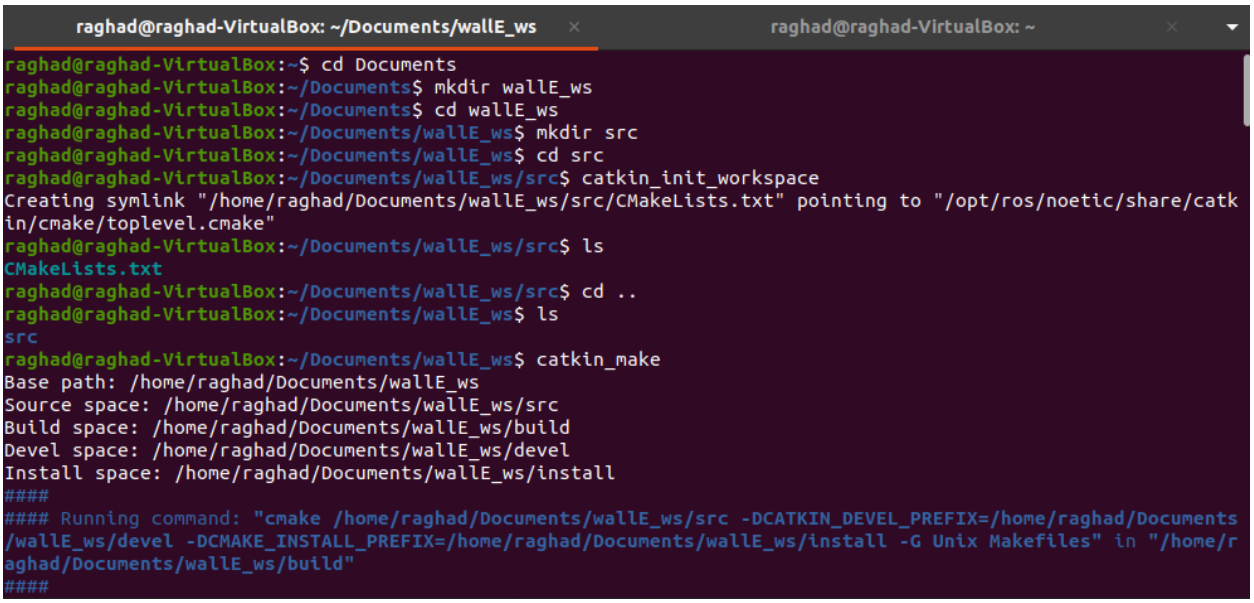
ملاحظة: إذا ظهر لك unknown بدلًا من noetic عند استعمال rosversion -d, يجب عليك فتح terminal جديد وقم باختباره مرة أخرى.

2. ROS packages

1. To create catkin workspace, open a new terminal and run the following commands.

لإنشاء catkin workspace, افتح terminal جديد وقم بكتابة الأوامر التالية.

```
cd Documents
mkdir wallE_ws
cd wallE_ws
mkdir src
cd src
catkin_init_workspace
ls
cd ..
ls
catkin_make
```



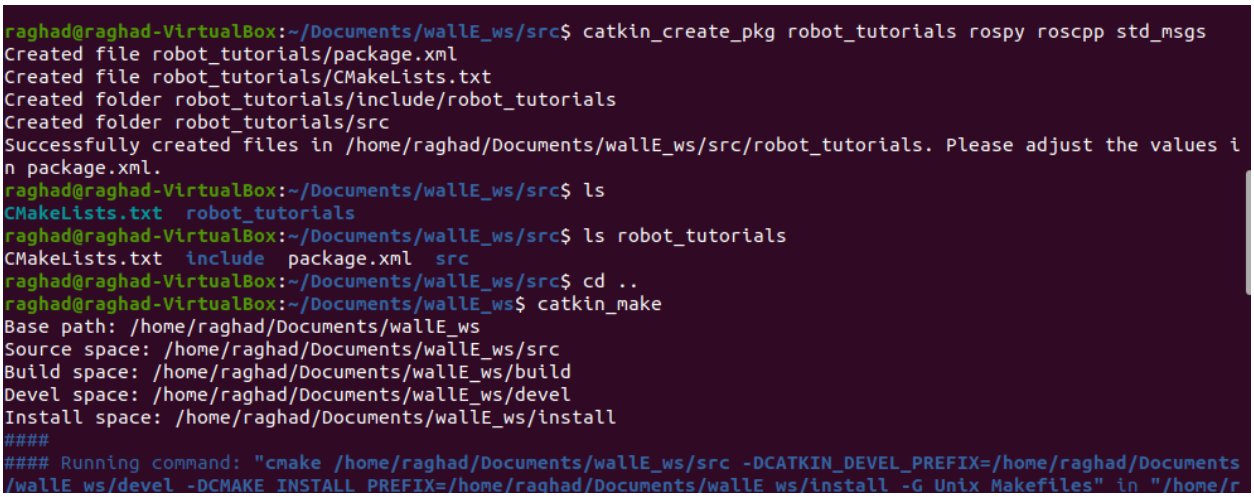
2. To create a new ROS package, run the following commands.
لانشاء ROS package, قم بكتابة الأوامر التالية.

```
cd src
catkin_create_pkg robot_tutorials rospy roscpp std_msgs
```

Note: you can write any name of your choosing (instead of robot_tutorials).

ملاحظة: يمكنك كتابة أي اسم من اختيارك (بدلًا من robot_tutorials) .

```
ls
ls robot_tutorials

cd ..
catkin_make
```



3. Open a new terminal and run the following commands to make your workspace visible to the file system.

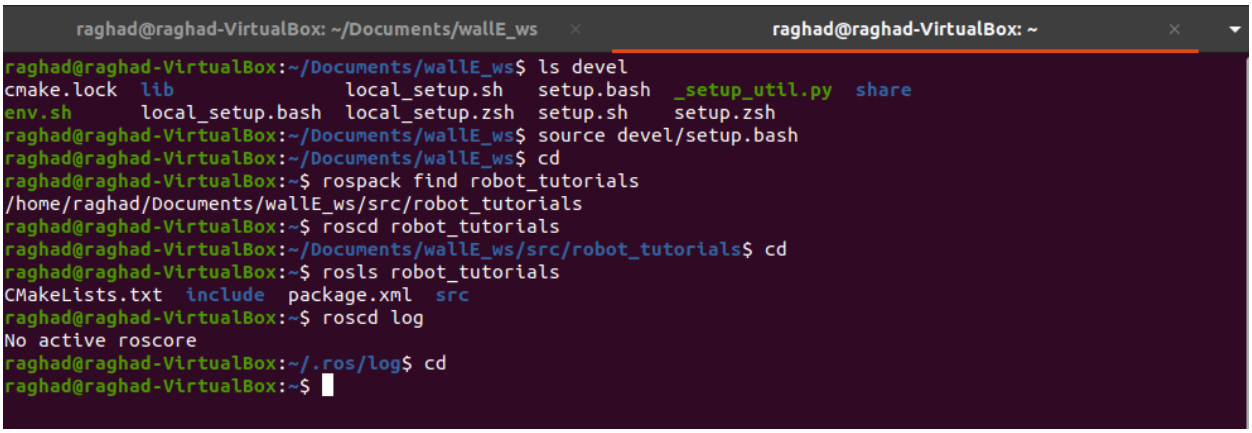
افتح terminal جديد وقم بكتابة الأوامر التالية لجعل مساحة العمل الخاصة بك مرئية للنظام.

```
cd Documents/wallE_ws

ls devel

source devel/setup.bash

cd
```

rospack find robot_tutorials

to directly enter your package, you can use the command line: roscd robot_tutorials

to list the contents of your package, you can use the command line: rosls robot_tutorials



You have now successfully installed ROS on your device.

لقد قمت بتحميل ROS على جهازك بنجاح.