**IE 410 – INTRODUCTION TO ROBOTICS**

**Lab-7 report**

**Creating launch file for turtlesim**

**Team M410:**

201901011 – HIMANSHU DUDHATRA

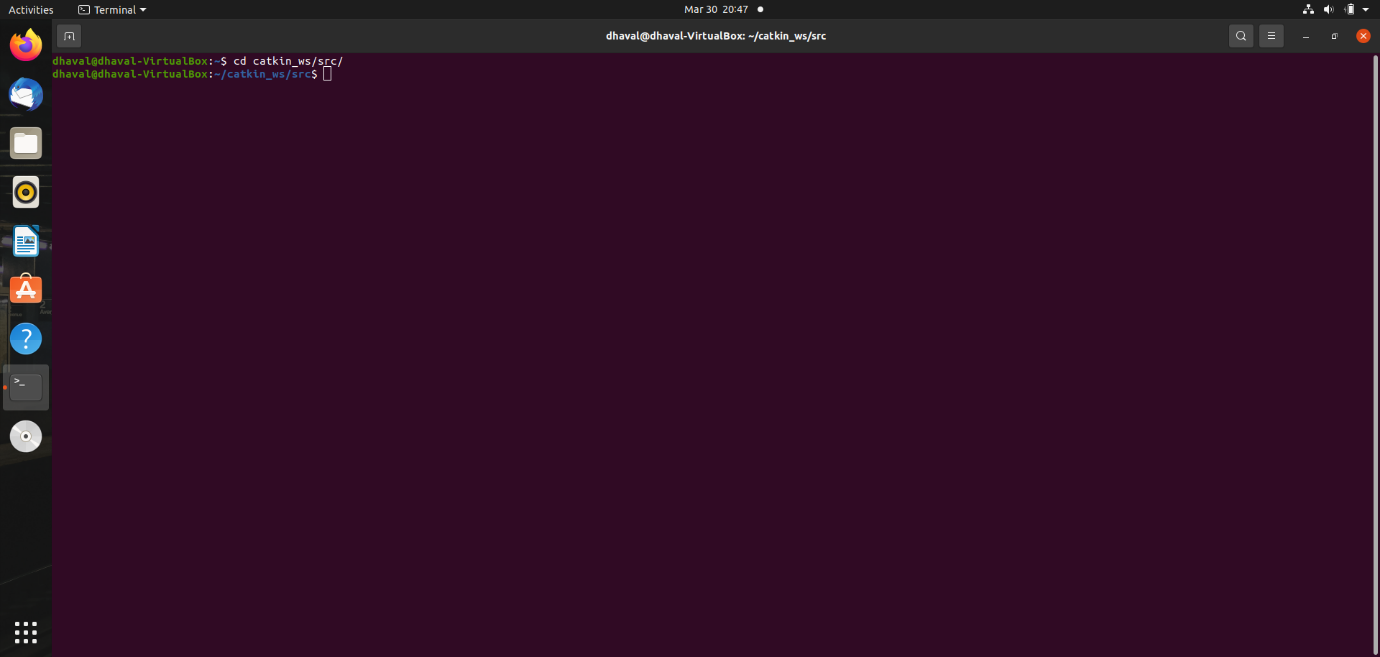
201901024 – DHAVALSINH RAJ

201901100 – SHUBHAM PATEL

201901145 – GARGEY PATEL

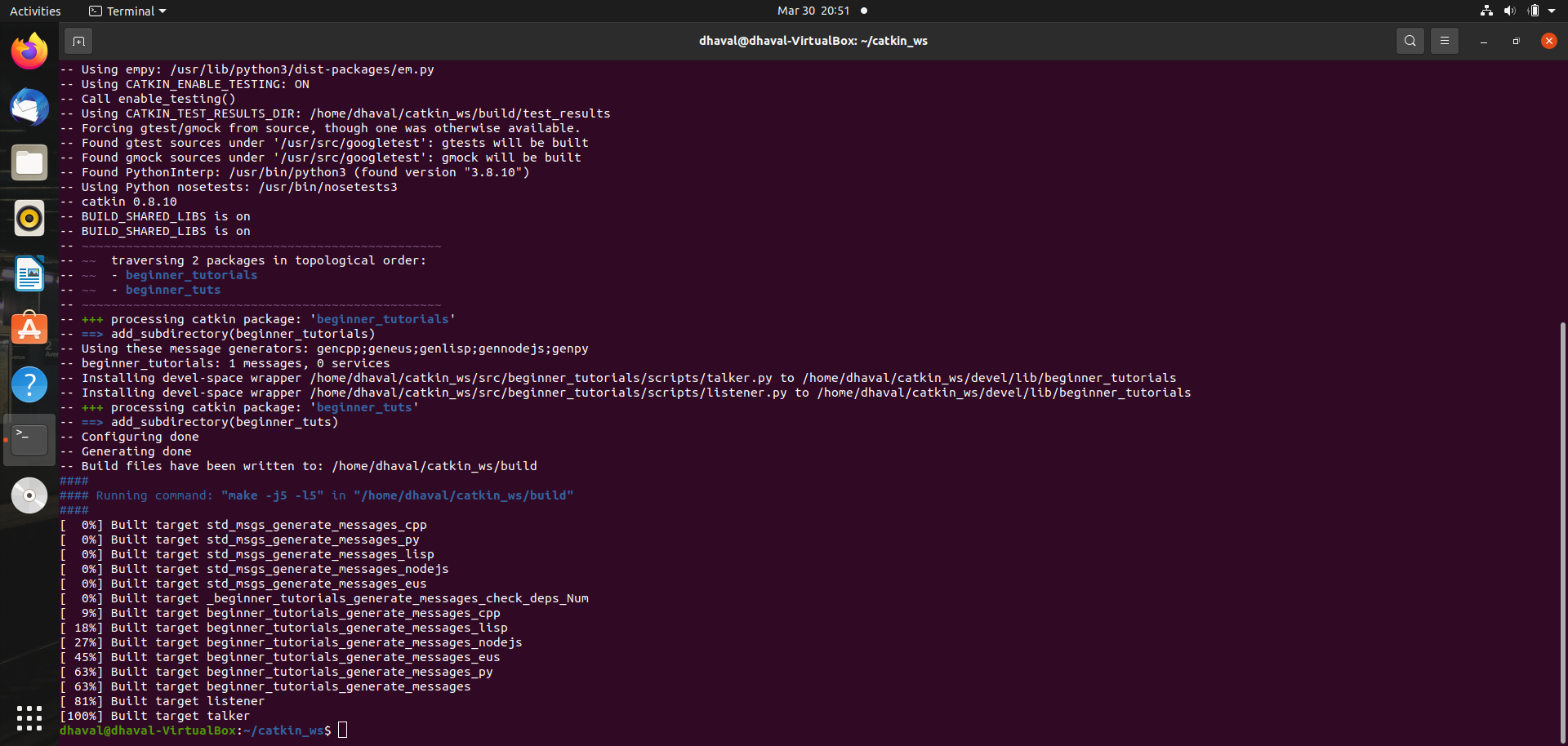
* First go to the ‘src’ folder of our catkin workspace.

$ cd catkin\_ws/src



* Now use the below command to create a catkin package named beginner\_tutorials.

$ catkin\_create\_pkg beginner\_tutorials std\_msgs rospy roscpp

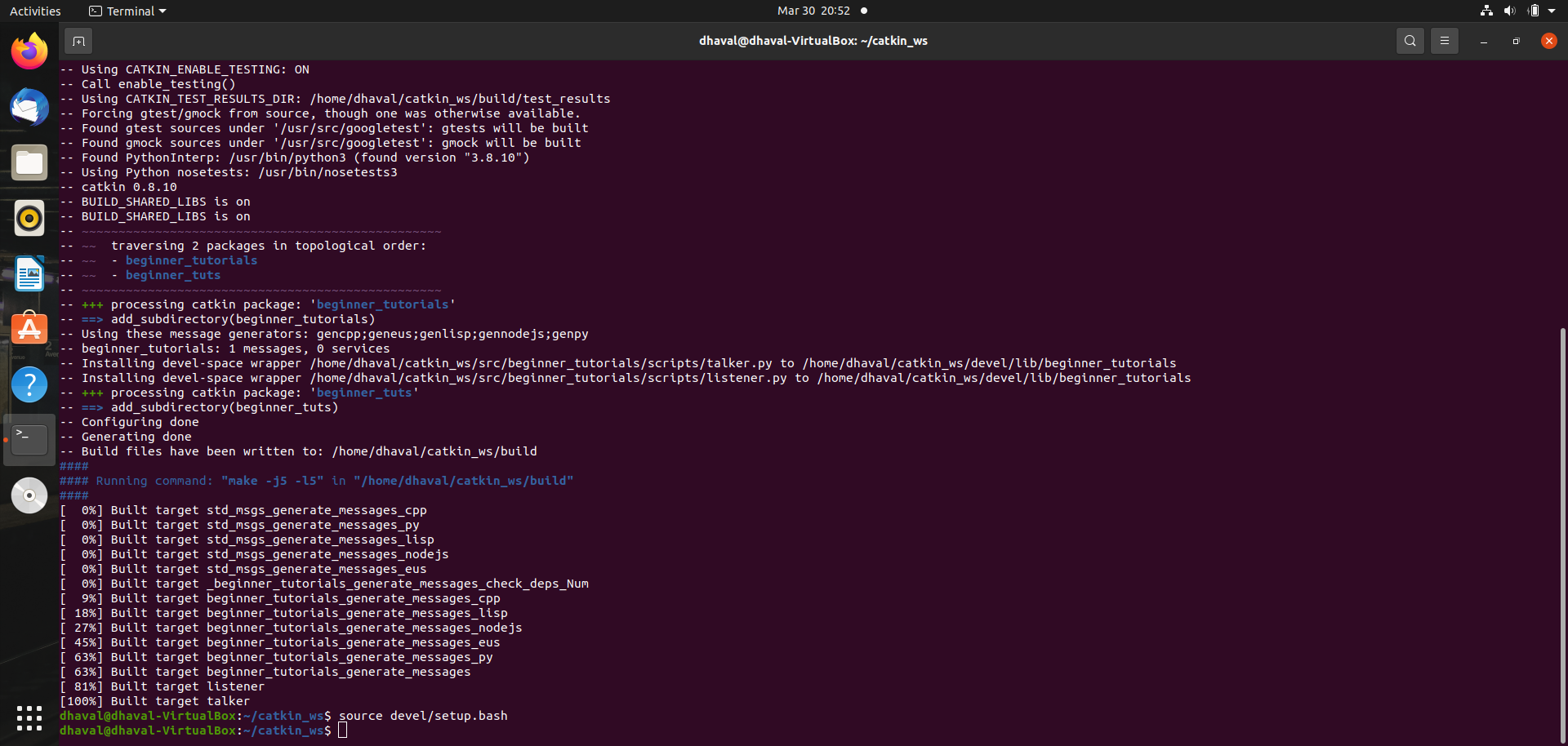


* Now to build the package and workspace go to catkin\_ws folder and execute catkin\_make.

$ catking\_make

* Now, to add the workspace to our ROS environment we need to source the generated setup file.

$ source devel/setup.bash



* Simple launch file

We will write a simple launch file in our beginner\_tutorials package. Content of the file is given below.

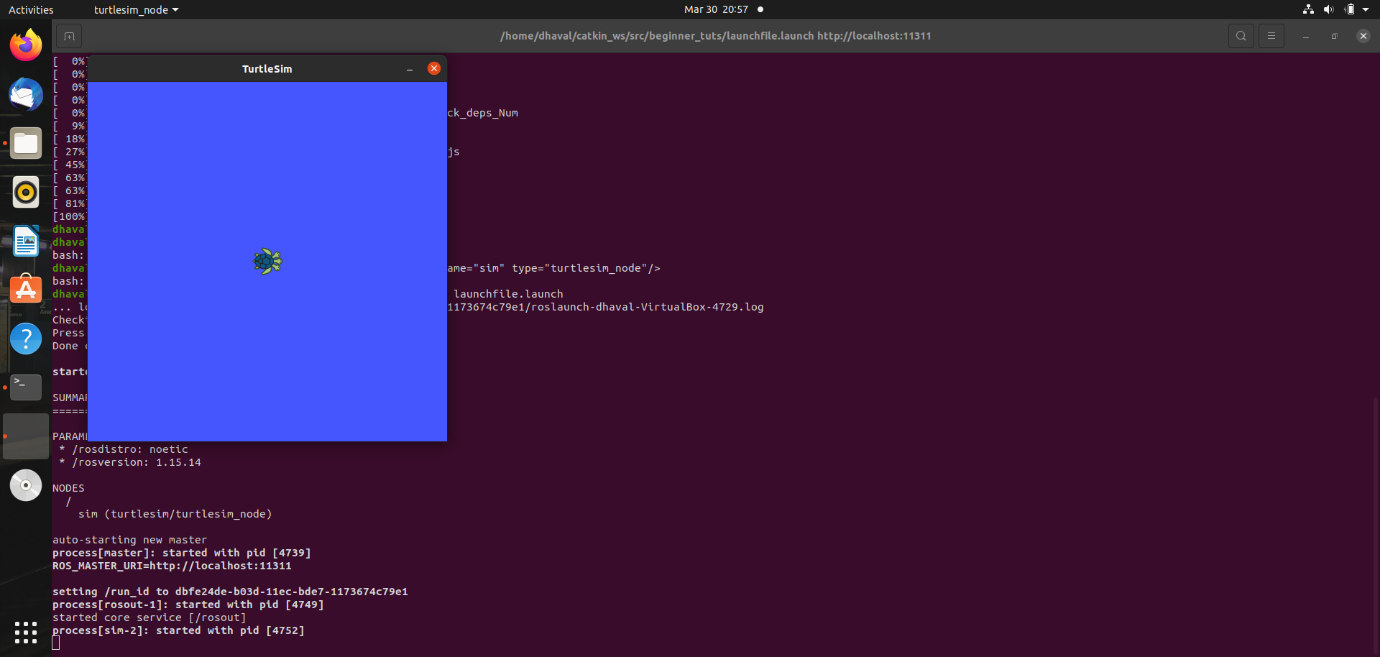
**<launch>**

**<node** pkg="turtlesim" name="sim" type="turtlesim\_node"**/>**

**</launch>**

Now we will launch this launch file by running following command.

$ roslaunch beginner\_tutorials launchfile.launch



* Launch file with teleop key which can control through keyboard

We will write a simple launch file which includes teleop key in our beginner\_tutorials package. Content of the file is given below.

**<launch>**

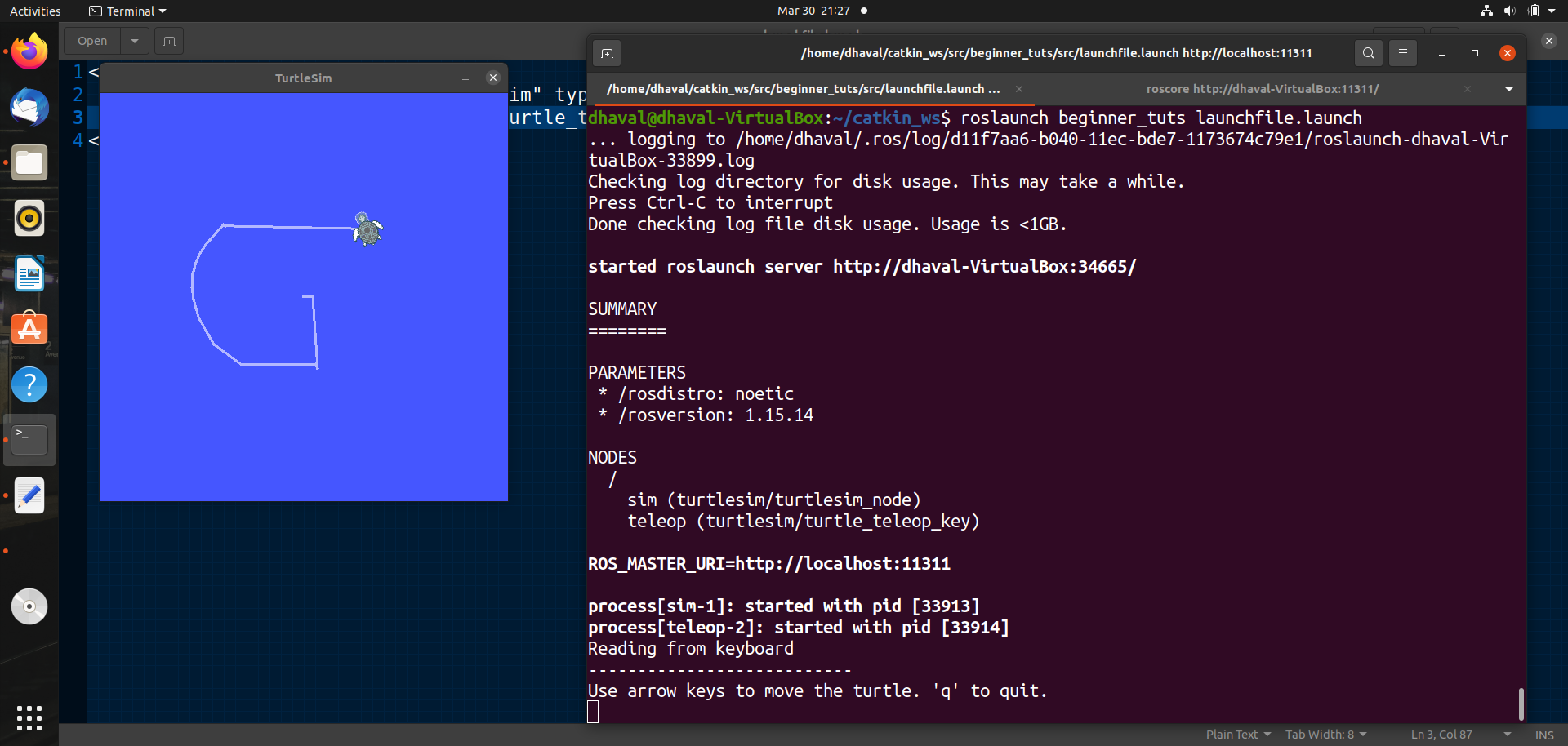
**<node** pkg="turtlesim" name="sim" type="turtlesim\_node**"/>**

**<node** pkg="turtlesim" name="teleop\_key" type="turtle\_teleop\_key"**/>**

**</launch>**

Now we will launch this launch file by running following command.

$ roslaunch beginner\_tutorials launchfile.launch



* Launch file with teleop key which can control through keyboard

To make turtlesim node moves via python file and control through keyboard, we will write a simple launch file in our beginner\_tutorials package. Content of the file is given below.

**<launch>**

**<node** pkg="turtlesim" name="sim" type="turtlesim\_node"**/>**

**<node** pkg="turtlesim" name="teleop\_key" type="turtle\_teleop\_key"**/>**

**<node** pkg="beginner\_tutorials" name="turtlesim\_cleaner" type="turtlesim\_cleaner.py" output="screen"**/>**

**</launch>**

Now we will launch this launch file by running following command.

$ roslaunch beginner\_tutorials launchfile.launch

