

ROS Task 1 :-

1) Creating a catkin workspace

Terminal commands:-

```
source /opt/ros/noetic/setup.bash
mkdir -p ~/catkin_ws/src
cd ~/catkin_ws/
```

```
source devel/setup.bash
echo $ROS_PACKAGE_PATH
```

2) Creating a ROS Package

Terminal commands:-

```
cd ~/catkin_ws/src
catkin_create_pkg beginner_tutorials std_msgs rospy roscpp
catkin_make
. ~/catkin_ws/devel/setup.bash
```

3) Launch the turtlesim node and explore its messages and topics

Terminal commands:-

```
roscore
roslaunch turtlesim turtlesim_node (in new terminal)
roslaunch turtlesim turtle_teleop_key (in new terminal)
rostopic list
```

4) Publish a ROS package for a simple publisher subscriber node in python (talker-listener)

Terminal commands:-

```
mkdir scripts
cd scripts
```

wget

https://raw.githubusercontent.com/ros/ros_tutorials/kinetic-devel/rospy_tutorials/001_talker_listener/talker.py

chmod +x talker.py (change mode to executable)

wget

https://raw.githubusercontent.com/ros/ros_tutorials/kinetic-devel/rospy_tutorials/001_talker_listener/listener.py

chmod +x listener.py

Now to run:-

cd ~/catkin_ws

roscore

roslaunch beginner_tutorials talker.py

roslaunch beginner_tutorials listener.py

Issues Faced:-

- File system is a bit tedious to understand at first

