1.This Quiz is from the course, TF ROS 101 on Robot Ignite Academy
: https://www.robotigniteacademy.com/en/course/tf-ros-101/details/
2.Any content of the quiz belongs to Robot Ignite Academy except for the sample solution written by Samwoo Seong. I.e. I don't own any of quiz contents
3.Any work throughout the quiz is for learning purpose
4.The solution written by Samwoo Seong shouldn't be used to pass the quiz on this course

<Requirements>

-One of ROS 1 distributions

-Gazebo

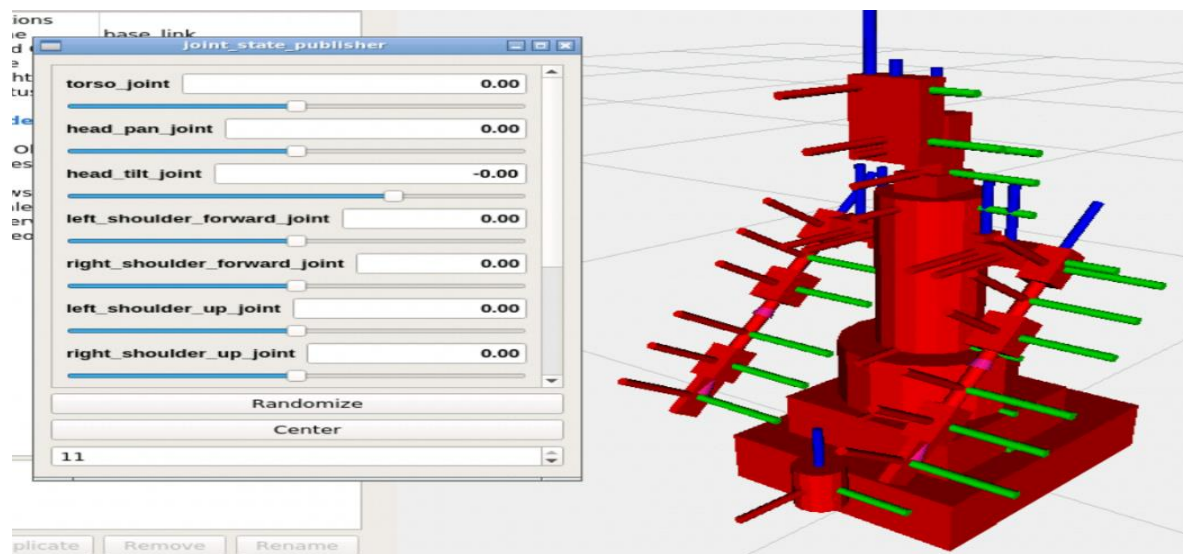-Two running turtlebots

<How to Run my program and reproduce results>

-Quiz 1

1. Open a terminal and type

roslaunch tf_quiz tf_quiz.launch

```
user:~$ roslaunch tf_quiz tf_quiz.launch
```

2. Move sliders around to adjust joint state of Pi robot

3. You can also publish joint state in terminal and observe the change in simulation

e.g. publish joint value 0.2 to torso_joint_position_controller/command

```
user:~$ rostopic pub /pi_robot/torso_joint_position_controller/command std_msgs/Float64 "data: 0.2"
```

-Quiz 2

1.Assume you have two running turtlebots

2.Type this in terminal

roslaunch tf_quiz_static_transform pub_static_transform.launch

```
user:~$ roslaunch tf_quiz_static_transform pub_static_transform.launch
```

3.Run RVIZ.

rosrun rviz rviz

```
user:~$ rosrun rviz rviz
```

4.Publish message to /cmd_vel topic for each turtlebot

rostopic pub /robot1/cmd_vel geometry_msgs/Twist "linear:

 x: -0.2

 y: 0.0

 z: 0.0

angular:

 x: 0.0

 y: 0.0

 z: 0.0"

e.g.

```
user:~$ rostopic pub /robot1/cmd_vel geometry_msgs/Twist "linear:
  x: -0.2
  y: 0.0
  z: 0.0
angular:
  x: 0.0
  y: 0.0
  z: 0.0" []
```