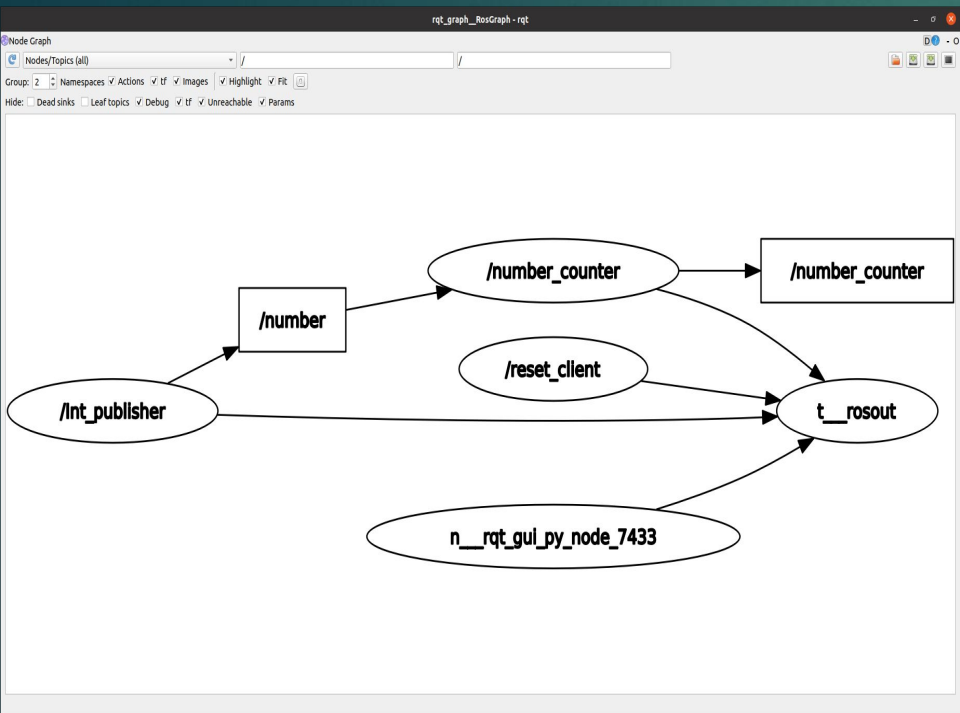


ROS2 LAB3

(Robot Operating System)



Make a ROS2 python package <iti_lab3> that includes 3 nodes (node1, node2, node3) as shown. node1 should publish a custom message formed of 2 variables: A string variable "<your name> is publishing: 5", and an Int64 variable with a fixed value "5". node2 should receive the custom msg, accumulate the Int64 variable into a counter, and then publish the accumulated counter, also the node should reset the accumulated counter using a custom service that would be called from node3, the service should have a boolean variable in the request and a string variable in the response. A single launch file should launch node1, and node2. show your rqt_graph as shown and save it as a png image.



```


delldell-G5-5590: ~/course_ws_final/src/my_py_pkg_2/my_py_pkg_2/Topic_2/100x27
[INFO] [1619597572.093770314] [str_publisher]: Pub_Node_Started_ok
[INFO] [1619597573.094584569] [str_publisher]: 3
[INFO] [1619597574.094928416] [str_publisher]: 3
[INFO] [1619597575.094464668] [str_publisher]: 3
[INFO] [1619597576.094464685] [str_publisher]: 3
[INFO] [1619597577.094732684] [str_publisher]: 3
[INFO] [1619597578.094689818] [str_publisher]: 3
[INFO] [1619597579.094320094] [str_publisher]: 3
[INFO] [1619597580.094365334] [str_publisher]: 3
[INFO] [1619597581.094858748] [str_publisher]: 3
[INFO] [1619597582.094397638] [str_publisher]: 3
[INFO] [1619597583.094733636] [str_publisher]: 3

delldell-G5-5590: ~/course_ws_final/src/my_py_pkg_2/my_py_pkg_2/Topic_2/101x27
[INFO] [1619597570.406942652] [number_counter]: sub_Node Started
[INFO] [1619597573.094842746] [number_counter]: lget data and counter is 0
[INFO] [1619597574.094944565] [number_counter]: lget data and counter is 3
[INFO] [1619597575.094624416] [number_counter]: lget data and counter is 6
[INFO] [1619597576.094671829] [number_counter]: lget data and counter is 9
[INFO] [1619597577.094629427] [number_counter]: lget data and counter is 12
[INFO] [1619597578.094925743] [number_counter]: lget data and counter is 15
[INFO] [1619597579.094575666] [number_counter]: lget data and counter is 18
[INFO] [1619597579.115282338] [number_counter]: Done REset counter is 0
[INFO] [1619597580.094648272] [number_counter]: lget data and counter is 0
[INFO] [1619597581.095182069] [number_counter]: lget data and counter is 3
[INFO] [1619597582.094791399] [number_counter]: lget data and counter is 6
[INFO] [1619597583.094691278] [number_counter]: lget data and counter is 9

delldell-G5-5590: ~/course_ws_final/src/my_py_pkg_2/my_py_pkg_2/Topic_2/101x27
[WARN] [1619597579.114702641] [client_OOP_Node]: Server OK make Request
[WARN] [1619597579.115846344] [client_OOP_Node]: OK_CALL
[INFO] [1619597579.116880110] [client_OOP_Node]: Counter_Done Reset Here_REspond True

delldell-G5-5590: ~/course_ws_final/src/my_py_pkg_2/my_py_pkg_2/Topic_2/101x27
ros2 topic echo /number
counter
data: 6
---
data: 9
---
data: 12
---
data: 15
---
data: 18
---
data: 0
---
data: 3
---
data: 6
---
data: 9
---

```



Low Speed Self-driving Vehicles- ITI

Task 2: Deadline 4/5/2021 11:59 pm (bonus)

Make a ROS2 python node that publish a geometry_msgs/Twist on the topic /turtle1/cmd_vel to move turtlesim in the following sequence:

- 1- Linear x velocity for 1 second
- 2- Linear x velocity, and angular z velocity for 1 second
- 3- Angular z velocity for 1 second



Instructors repo Link:

- 1- <https://github.com/ahmedgharieb1>
- 2- <https://github.com/M-abdeen>

Material repo :

https://github.com/ahmedgharieb1/ITI_LSV_ROS2

