ROS for Robot Arm Specialization - ROS Essentials Course

Assignment #3

Time estimated to complete: 7 days

Write a ROS Node Client/Server:

- The client send a float number the represents the radius of the circle
- The server will send back the surface of the circle
- Simulate the fact that the server takes times to send a response by adding a timer (e.g. 5-10 seconds)
- Service message
- Request: radius of type float32
- Response: surface of type float32

Write a ROS Node Server

Receives a request from a ROS client

- <u>Request message:</u>
1. Twist message: that contains the velocity information
2. Time: as an int represent the number of second the robot needs to move (must be less than 5)
- <u>The server will make the turtlesim move for the time specified and the velocity message specified If all is fine, the robot sends the response as follows</u>
1. Boolean: True is successful, False is anything bad happened
2. String:
3. if true -> "Mission completed with success. Robot moved x meters"
4. If false -> send an error message of what went wrong (data validation, robot not available, ...)