Exercise - 2

21_AIE_213

Robotics operating System– SEM-IV

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Q1. Code of modified number_counter

```
#!/usr/bin/env python3
import rclpy
from rclpy.node import Node
from example_interfaces.msg import Int16
#from std_msgs.msg import String
from example_interfaces.srv import SetBool

class NumberCounterNode(Node):

    def __init__(self):
        super().__init__("number_counter")
        self.counter_ = 0
        self.number_subscriber_ = self.create_subscription(
            Int16, "number", self.callback_number_counter, 10)
        self.counter_publisher_ = self.create_publisher(Int16,
"number_counter",10)
        # Create a subscription, names the topic,callback function
which reieves msg from topic, queue size is 10

self.server=self.create_service(SetBool,"reset_count",self.callback_res
et)
        self.get_logger().info("Number Counter has started!")

    def callback_number_counter(self, msg):
        self.counter_ += msg.data
        self.get_logger().info(f"{self.counter_}")
        counter_msg = Int16()
        counter_msg.data = self.counter_
        self.counter_publisher_.publish(counter_msg)

    def callback_reset(self,request,response):
        if request.data:
            self.counter_=0
            self.get_logger().info("count reset")
            response.success=True
            response.message="count reset sucessfully"
        else:
            response.success=False
            response.message="count reset unsucessfully"
        return response

def main(args=None):
    rclpy.init(args=args)
    #Code goes here
    node = NumberCounterNode()
    rclpy.spin(node)
```

```
    rclpy.shutdown()

if __name__ == "__main__":
    main()
```