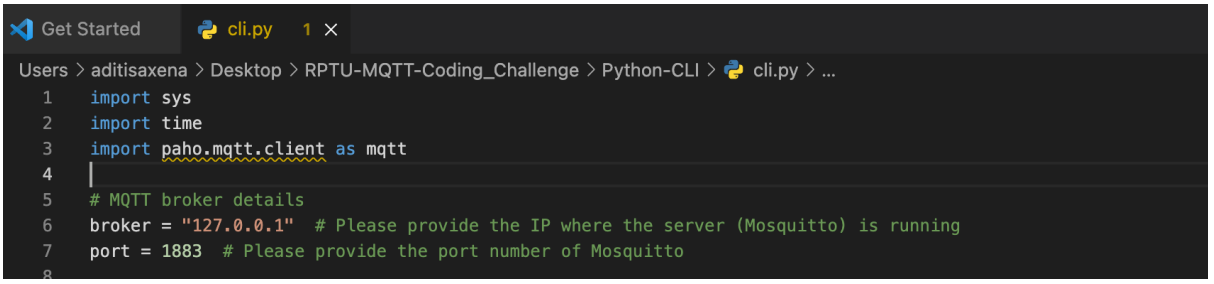
# Documentation RPTU-MQTT-Coding Challenge

## Prerequisite

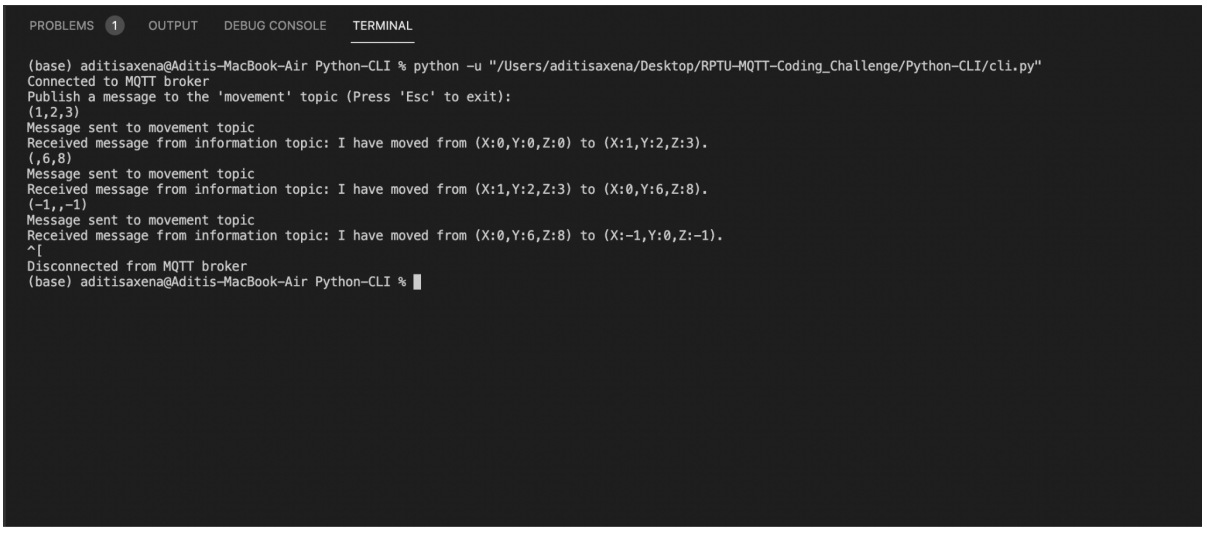
- Kindly setup Mosquitto/ MQTT broker: https://mosquitto.org/download/
- Python
- Unity

## To use CLI:

- Give pip install -r requirements.txt to install dependencies of the project. Make sure to run this command from the Python folder of the project. Command : `pip3 install -r requirements.txt`
- As of now, IP Address and port of MQTT broker is hardcoded in cli.py file. Please change it according to your local system.




- After making the above changes and installing the dependencies, run cli.py file from terminal.
- Start giving coordinates in the form (X,Y,Z).

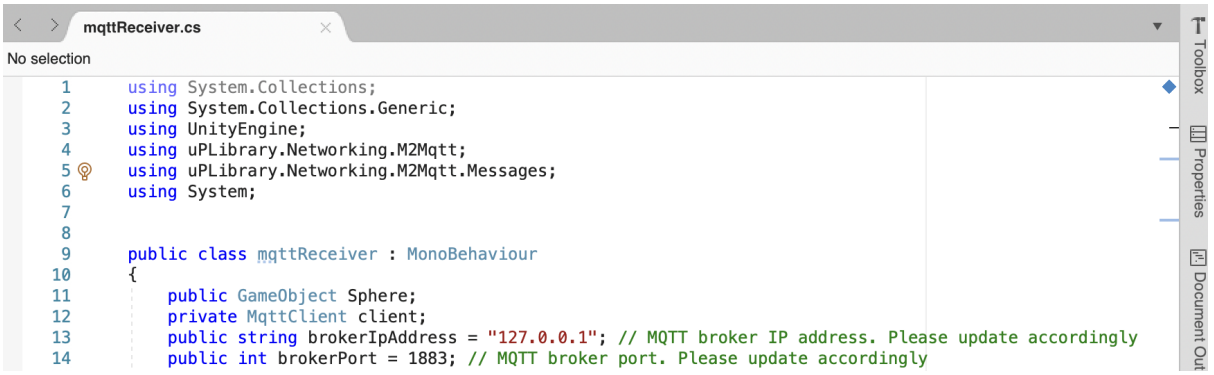



- Press the Esc button to disconnect from the server.

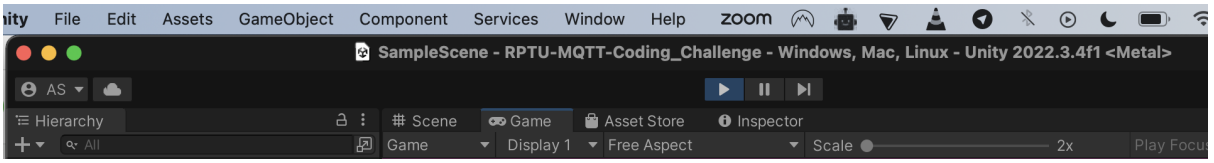
## Start the Unity:

- Please open the project folder from Unity.

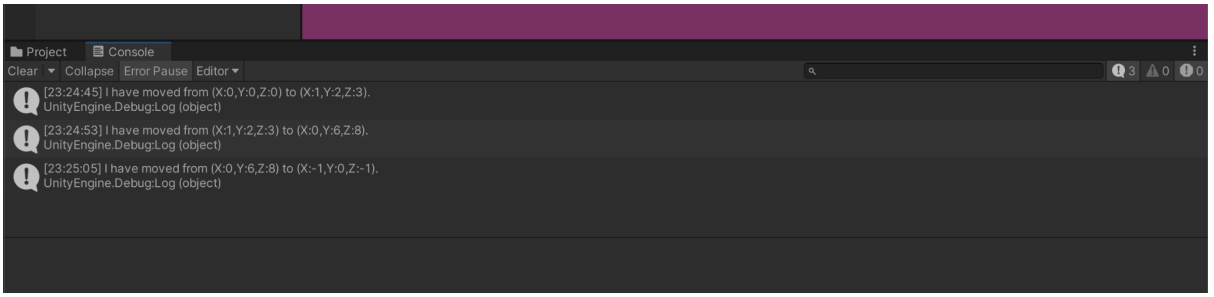

- Please change the IP address and port number of mosquitto/ MQTT broker according to your system in C# file(mqttReceiver.cs).



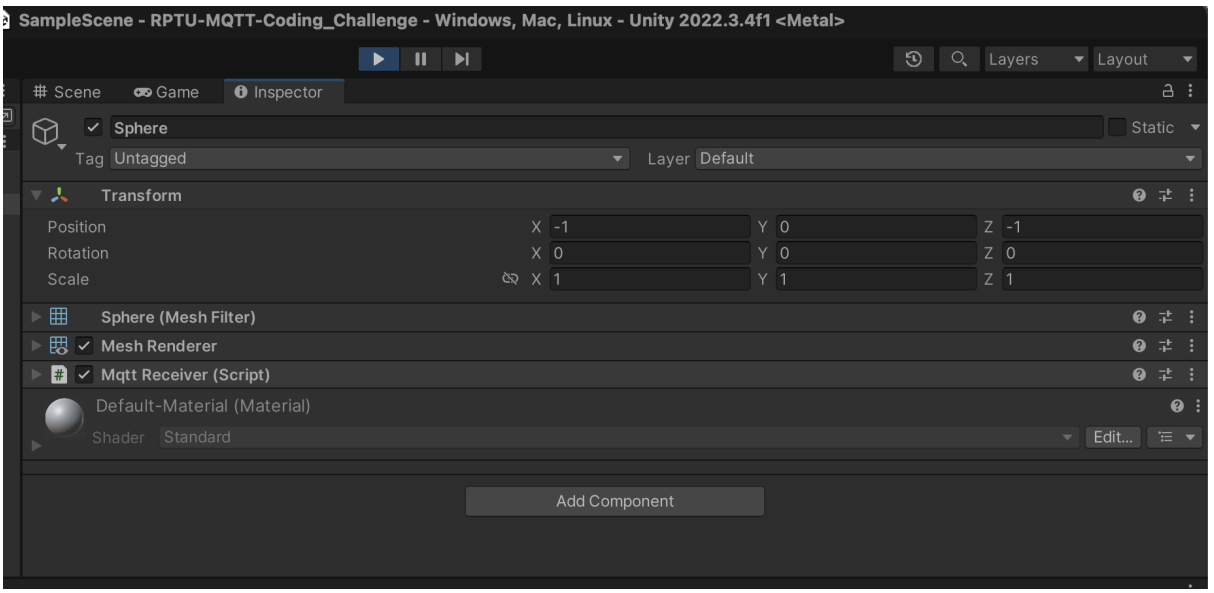

- The C# script only takes coordinates in the form of (X,Y,Z). It will handle missing coordinates.
- Start the game/Play button.




- As the coordinates start coming from the broker, the sphere will move to those coordinates and messages will also be displayed in the console window of Unity.




- You can keep a check on the coordinates of the ball from the inspector window.




- Same message will be sent to mosquitto topic and displayed on CLI.
- Press the Stop/Play button to stop the game.