



KRSSG TASK

BASIC INFORMATION

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CASINO SERVER

Code To Run

- 1.Casino Server Starting Code: \$ python3 Task1_Casino_server.py
- 2.Casino Client Starting Code: \$ python3 Task1_Casino_client.py

OUTPUT:

```
ubuntu@ubuntu-VirtualBox: ~/Desktop/krssg
File Edit View Search Terminal Help
ubuntu@ubuntu-VirtualBox:~$ cd Desktop/krssg/
ubuntu@ubuntu-VirtualBox:~/Desktop/krssg$ python3 Task1_Casino_server.py
=====Server is starting=====
Server is listening on the IP Address: 127.0.1.1
NEW CONNECTION] ('127.0.0.1', 47506) connected.
NEW CONNECTION] ('127.0.0.1', 47508) connected.
NEW CONNECTION] ('127.0.0.1', 47510) connected.
('127.0.0.1', 47506)] 13
('127.0.0.1', 47508)] 11
('127.0.0.1', 47510)] 12
Inner of round- 1 is player- 1
```

```
ubuntu@ubuntu-VirtualBox: ~/Desktop/krssg
File Edit View Search Terminal Help
ubuntu@ubuntu-VirtualBox:~$ cd Desktop/krssg/
ubuntu@ubuntu-VirtualBox:~/Desktop/krssg$ python3 Task1_Casino_client.py
Starting the game...[Please wait until other players to join]
You are player 1
Pick the largest among:
[11, 13, 8]
13
You entered: 13 , please wait for every player to select...
Msg received, next round starts soon...
Pick the largest among:
[9, 13, 7]
█
```

```
ubuntu@ubuntu-VirtualBox: ~/Desktop/krssg
File Edit View Search Terminal Help
ubuntu@ubuntu-VirtualBox:~$ cd Desktop/krssg/
ubuntu@ubuntu-VirtualBox:~/Desktop/krssg$ python3 Task1_Casino_client.py
Starting the game...[Please wait until other players to join]
You are player 2
Pick the largest among:
[8, 1, 11]
11
You entered: 11 , please wait for every player to select...
Msg received, next round starts soon...
█
```

```
ubuntu@ubuntu-VirtualBox: ~/Desktop/krssg
File Edit View Search Terminal Help
ubuntu@ubuntu-VirtualBox:~$ cd Desktop/krssg/
ubuntu@ubuntu-VirtualBox:~/Desktop/krssg$ python3 Task1_Casino_client.py
Starting the game...[Please wait until other players to join]
You are player 3
Pick the largest among:
[2, 12, 1]
12
You entered: 12 , please wait for every player to select...
Msg received, next round starts soon...
█
```

```
ubuntu@ubuntu-VirtualBox: ~/Desktop/krssg
File Edit View Search Terminal Help
ubuntu@ubuntu-VirtualBox:~$ cd Desktop/krssg/
ubuntu@ubuntu-VirtualBox:~/Desktop/krssg$ python3 Task1_Casino_server.py
=====Server is starting=====
Server is listening on the IP Address: 127.0.1.1
[NEW CONNECTION] ('127.0.0.1', 47506) connected.
[NEW CONNECTION] ('127.0.0.1', 47508) connected.
[NEW CONNECTION] ('127.0.0.1', 47510) connected.
[('127.0.0.1', 47506)] 13
[('127.0.0.1', 47508)] 11
[('127.0.0.1', 47510)] 12
Winner of round- 1 is player- 1

[('127.0.0.1', 47506)] 13
[('127.0.0.1', 47508)] 8
Winner of round- 2 is player- 1

[('127.0.0.1', 47508)] 5
[('127.0.0.1', 47510)] 8
[('127.0.0.1', 47506)] 13
Winner of round- 3 is player- 1

[('127.0.0.1', 47506)] 8
[('127.0.0.1', 47508)] 5
[('127.0.0.1', 47510)] 4
Winner of round- 4 is player- 1

The winner(s) of the 4 rounds is(are) player(s)--- 1
█
```

```
ubuntu@ubuntu-VirtualBox: ~/Desktop/krssg
File Edit View Search Terminal Help
Msg received, next round starts soon...
Pick the largest among:
[12, 13, 2]
13
You entered: 13 , please wait for every player to select...
Msg received, next round starts soon...
Pick the largest among:
[1, 8, 2]
8
You entered: 8 , please wait for every player to select...
Game is over, results will be declared soon...
The winner(s) of the 4 rounds is(are) player(s)--- 1
Do you wish to continue? [y/n]
█

ubuntu@ubuntu-VirtualBox: ~/Desktop/krssg
File Edit View Search Terminal Help
Msg received, next round starts soon...
Pick the largest among:
[6, 5, 4]
5
You entered: 5 , please wait for every player to select...
Msg received, next round starts soon...
Pick the largest among:
[6, 5, 4]
5
You entered: 5 , please wait for every player to select...
Game is over, results will be declared soon...
The winner(s) of the 4 rounds is(are) player(s)--- 1
Do you wish to continue? [y/n]
█

ubuntu@ubuntu-VirtualBox: ~/Desktop/krssg
File Edit View Search Terminal Help
Msg received, next round starts soon...
Pick the largest among:
[2, 8, 2]
8
You entered: 8 , please wait for every player to select...
Msg received, next round starts soon...
Pick the largest among:
[3, 3, 4]
4
You entered: 4 , please wait for every player to select...
Msg received, next round starts soon...
Pick the largest among:
█
```

Output at the End of Round 4

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TRAFFIC JAM

Compilation Code

```
1.Server :$ g++  
Task2_TrafficLight_SocketProgramming.cpp -o server  
2.Client :g++ Task2_TrafficLight_Client.cpp -o client
```

Code To Run

```
1.Server:$ ./server 9898  
2.Client:$ ./client 127.0.0.1 9898
```

```
ubuntu@ubuntu-VirtualBox: ~/Desktop/krssg
File Edit View Search Terminal Help
ubuntu@ubuntu-VirtualBox:~$ cd Desktop/krssg/
ubuntu@ubuntu-VirtualBox:~/Desktop/krssg$ g++ Task2_TrafficLight_SocketProgramming.cpp -o server
ubuntu@ubuntu-VirtualBox:~/Desktop/krssg$ ./server 9898
=====Server=====
Enter no. of test lines:4
Input line 1: Time step 1:A- off
                B- go straight, go right
                C- off
                D- off
                Intial queue-1 1 1 1 1 1 1 1
                Final queue-0 0 1 1 1 1 1 1
Input line 2: Time step 2:A- off
                B- off
                C- go straight, go right
                D- off
                Intial queue-1 0 2 2 2 1 2 1
                Final queue-1 0 1 1 2 1 2 1
Input line 3: Time step 3:A- off
                B- go straight, go right
                C- off
                D- off
                Intial queue-1 0 2 2 2 1 2 1
                Final queue-1 0 1 1 2 1 2 1
Input line 4: Time step 4:A- off
                B- off
                C- go straight
                D- go straight
                Intial queue-1 1 2 1 3 1 2 1
                Final queue-1 1 2 1 2 1 1 1
Time step 5:A- go straight
                B- go straight
                C- off
                D- off
                Intial queue-1 1 2 1 2 1 1 1
                Final queue-0 1 1 1 2 1 1 1
Time step 6:A-go right
                B- off
                C- go straight
                D- off
                Intial queue-0 1 1 1 2 1 1 1
                Final queue-0 0 1 1 1 1 1 1
Time step 7:A- off
```

Server Side

OUTPUT:

```
ubuntu@ubuntu-VirtualBox: ~/Desktop/krssg
File Edit View Search Terminal Help
ubuntu@ubuntu-VirtualBox:~$ cd Desktop/krssg/
ubuntu@ubuntu-VirtualBox:~/Desktop/krssg$ g++ Task2_TrafficLight_Client.cpp -o client
ubuntu@ubuntu-VirtualBox:~/Desktop/krssg$ ./client 127.0.0.1 9898
=====Client=====
Enter no. of test lines: 4
Input line 1: 1 1 1 1 1 1 1 1
Input line 2: 1 0 1 1 1 0 1 0
Input line 3: 0 0 1 1 0 0 0 0
Input line 4: 0 1 1 0 1 0 0 0
ubuntu@ubuntu-VirtualBox:~/Desktop/krssg$
```

Client Side

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Open CV and RRT Star with ROS Implementation

- 1.Learnt all basics of Open CV
- 2.Implemented A Star for AGV before KRSSG Task Round started in free time but not gone into it as I am more focused towards KRSSG.
- 3.Read research paper for RRT Star .
- 4.Due to Mid Sem constraints not able to implement it , till last.
- 5.I will try to present it on PI as I may be able to do it in free time.

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AGENT PENDULUM & OPENAI GYM

1. Read the Open AI Gym Documentation.
2. Learnt some of the basic point related to Open AI and Tensor flow from you tube.
3. Facing Problems while installation , not able to upgrade Python.
4. Error: Failed to start Docker Application Container Engine.
5. When tried to resolve from Stack overflow even then it does not able to resolve it.