

QUIZ PROGRAM USING SOCKET PROGRAMMING

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PROJECT OVERVIEW

This is a multiplayer game, where 3 participants answer a series of questions to gain points. The game starts when 3 players join. Once a question is displayed, the players will get 10 seconds to press the enter key as a buzzer. The first person to press the buzzer, then gets 10 seconds to answer the question. If no answer is given or buzzer is not pressed by anyone, the host will move to the next question. Each correct answer gains 1 point, while a negative point is given for a wrong answer. The first person to gain 5 points wins the game.

INSTRUCTIONS

- Download the server.py and client.py files.

- First run the server.py by typing the following:

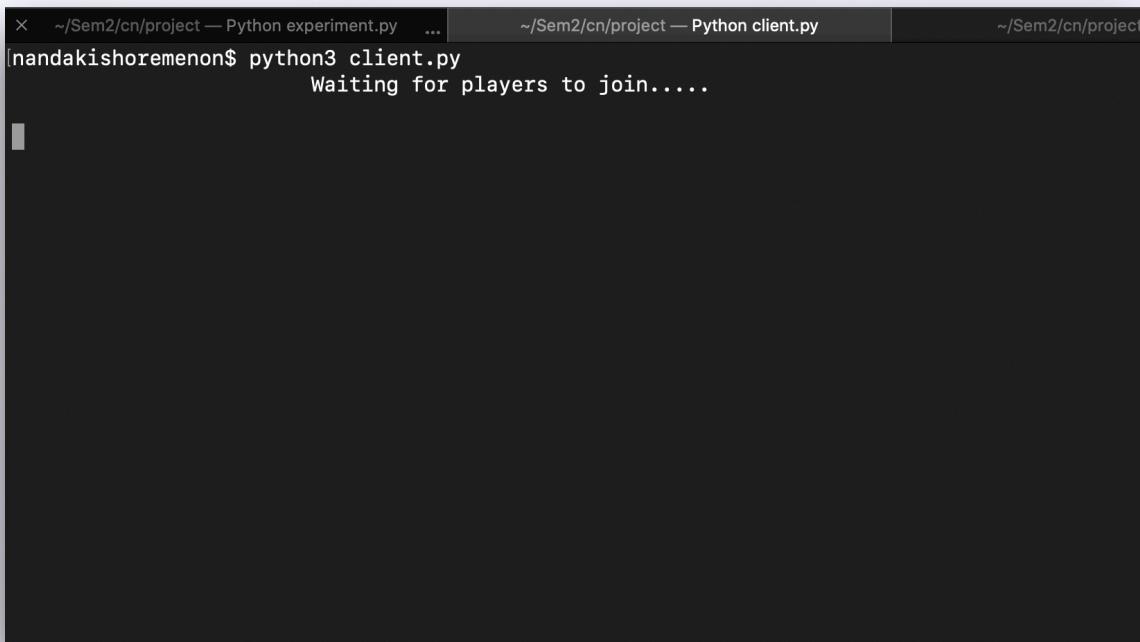
```
python3 server.py
```

- Then run the client.py file in three different terminals to get 3 clients. You run the client.py by typing the following in the terminal:

```
python3 client.py
```

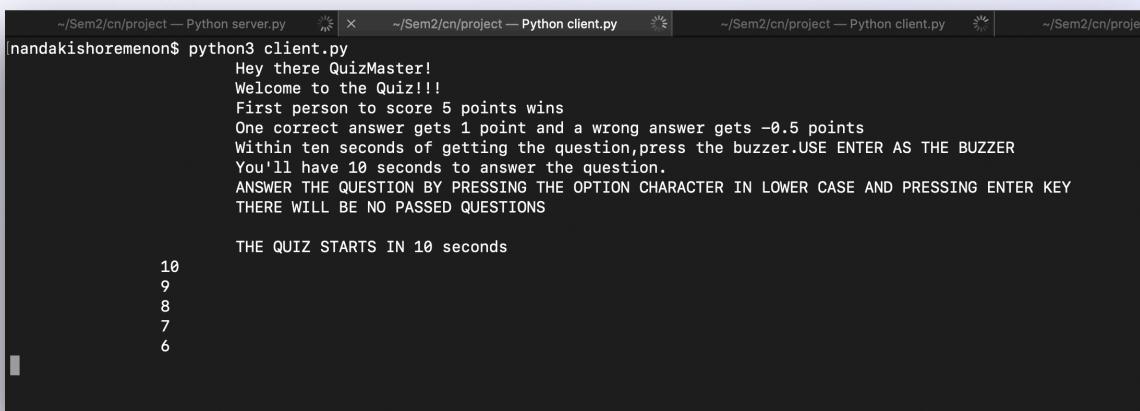
PROJECT DESCRIPTION

There are 2 aspects to this game: the server and the clients. The server is run and it awaits connections.



```
~/Sem2/cn/project — Python experiment.py ... ~/Sem2/cn/project — Python client.py ... ~/Sem2/cn/project
nandakishoremenon$ python3 client.py
Waiting for players to join.....
```

Each player is assigned a Player number based on his/her joining time. When the server receives 3 connections, it displays the questions.



```
~/Sem2/cn/project — Python server.py ... ~/Sem2/cn/project — Python client.py ... ~/Sem2/cn/project — Python client.py ... ~/Sem2/cn/project
nandakishoremenon$ python3 client.py
Hey there QuizMaster!
Welcome to the Quiz!!!
First person to score 5 points wins
One correct answer gets 1 point and a wrong answer gets -0.5 points
Within ten seconds of getting the question, press the buzzer. USE ENTER AS THE BUZZER
You'll have 10 seconds to answer the question.
ANSWER THE QUESTION BY PRESSING THE OPTION CHARACTER IN LOWER CASE AND PRESSING ENTER KEY
THERE WILL BE NO PASSED QUESTIONS

THE QUIZ STARTS IN 10 seconds
10
9
8
7
6
```

If two players press the buzzer, it is notified to everyone about who pressed the buzzer first.

This is done using the select() function from the select module. The timeout feature of select allows the server to give the clients a 10 second period to press the buzzer and also to answer the question.

Then that player can answer the question. If the answer is correct he gets 1 point. If it is wrong, he/she loses 0.5 points.

If nobody presses the buzzer or doesn't give an answer, the next question is displayed.

```
~/Sem2/cn/project — Python experiment.py ... ~/Sem2/cn/project — Python client.py ... ~/Sem2/cn/project — Python client.py ...
Who wrote Hamlet and Macbeth?
a.Mark Twain b.Jane Austen c.T.S.Eliot d.William Shakespeare

Player2 pressed the buzzer first
d

Player 2 gets 1 point!

Who composed the Avengers theme song?
a.Alan Silvestri b.John Powell c.Utkarsh Heerawala d.Prabhu Nidhish

Player2 pressed the buzzer first
a

Player 2 gets 1 point!

Which is the highest mountain on Earth?
a.Kangchenjunga b.Nanda Devi c.Mt.Everest d.K2

Player2 pressed the buzzer first
a

Player 2 loses 0.5

Who is Holt's arch nemesis?
a.Melissa Lunch b.Madeline Wuntch c.Jake Peralta d.Norm Scully

Which country is called the land of rising sun?
a.Russia b.India c.Japan d.China
```

When a player scores 5 or more points, the game terminates and that player is declared as the winner. The scores of each player is individually displayed to them.

```
~/Sem2/cn/project — -bash ... ~/Sem2/cn/project — -bash ... ~/Sem2/cn/project — -bash
What is Lord Voldemort's real name?
a.Tin-Tin   b.Tom Riddle   c.Tom Puzzle   d.Crossword Tom

Player2 pressed the buzzer first

b
Player 2 gets 1 point!

Who plays Batman in The Dark Knight?
a.Hindu Whale   b.Muslim Gayle   c.Christian Bale   d.Jewish Pale

Player2 pressed the buzzer first

c
Player 2 gets 1 point!

Who is the God of Thuder?
a.Odin   b.Loki   c.Thor   d.Tony Stark

Player2 pressed the buzzer first

c
Player 2 gets 1 point!
GAME OVER!

Player 2 wins!!

Your score :5.5 points.

nandakishoremenon$
```

Bibliography

- <https://docs.python.org/3/library/socket.html>
- <https://www.youtube.com/watch?v=6jteAOmdsYg&list=PLhTjy8cBISERYuLZUvVOYsR1giva2payF>
- <https://pythontic.com/modules/select/select>