

Quiz Game

1. What is it?

It is a client-server quiz game written in C with sockets.

2. How does it work?

The server sends a question to the clients. Then clients give answers by writing to their terminal. They each have to give 3 answers. Each correct answer counts as 10 points. Each wrong or previously entered answer counts as -5 points. The first player to connect gets the right to answer first. Then second player will give answer, then first player will again give answer. It continues like that until they both give 3 answers. Each player can see if it's their turn or not (YT: Your Turn, OT: Opponent's Turn). At the end of the game the server sends the points of the players to each client(player).

3. How to compile and run on local server?

3.1 Compile the source codes

```
gcc server.c -o Server  
gcc client.c -o Client
```

3.2 Open 3 terminals

In terminal 1 execute this command:

```
./Server
```

In terminal 2 execute this command. This is our first player:

```
./Client
```

In terminal 3 execute this command. This is our second player:

```
./Client
```

3.3 Play the game

Play the game until the end, or quit by "Ctrl+C".

4. Screenshots

A terminal window titled 'auzon@Win10Pro: /mnt/d/Projects/UniversityAssignmentsPrivate/SocketC/QuizGame(TermProject)/src'. The prompt is 'auzon@Win10Pro: /mnt/d/Projects/UniversityAssignmentsPrivate/SocketC/QuizGame(TermProject)/src\$'. The user has entered './Server'. The output shows 'Socket created!' and 'Bind completed!' on separate lines.

```
auzon@Win10Pro: /mnt/d/Projects/UniversityAssignmentsPrivate/SocketC/QuizGame(TermProject)/src$ ./Server
Socket created!
Bind completed!
```

Server

A terminal window titled 'auzon@Win10Pro: /mnt/d/Projects/UniversityAssignmentsPrivate/SocketC/QuizGame(TermProject)/src'. The prompt is 'auzon@Win10Pro: /mnt/d/Projects/UniversityAssignmentsPrivate/SocketC/QuizGame(TermProject)/src\$'. The user has entered './Client'. The output shows a quiz game in progress. The question is 'What are the most crowded 6 cities of the Turkey?(in lowercase)'. Player 1 (YT) enters 'izmir', which is correct and awards 10 points. Player 2 (OT) enters 'istanbul', which is correct and awards 10 points. Player 1 (YT) enters 'ankara', which is correct and awards 10 points. Player 2 (OT) enters 'bursa', which is correct and awards 10 points. Player 1 (YT) enters 'adana', which is correct and awards 10 points. Player 2 (OT) enters 'denizli', which is not correct or already given, and deducts 5 points. The final points table shows Player 1 with 30 points and Player 2 with 15 points.

```
auzon@Win10Pro: /mnt/d/Projects/UniversityAssignmentsPrivate/SocketC/QuizGame(TermProject)/src$ ./Client
What are the most crowded 6 cities of the Turkey?(in lowercase)
YT
izmir
izmir is correct. 10pts to player1
OT
istanbul is correct. 10pts to player2
YT
ankara
ankara is correct. 10pts to player1
OT
bursa is correct. 10pts to player2
YT
adana
adana is correct. 10pts to player1
OT
denizli is not correct or the answer already given. -5pts to player2
Points Table
Player 1: 30 points
Player 2: 15 points
auzon@Win10Pro: /mnt/d/Projects/UniversityAssignmentsPrivate/SocketC/QuizGame(TermProject)/src$
```

Player1 (First client that connects to the server)

```
auzon@Win10Pro: /mnt/d/Projects/UniversityAssignmentsPrivate/SocketC/QuizGame(TermProject)/src
auzon@Win10Pro:/mnt/d/Projects/UniversityAssignmentsPrivate/SocketC/QuizGame(TermProject)/src$ ./Client
What are the most crowded 6 cities of the Turkey?(in lowercase)
OT
izmir is correct. 10pts to player1
YT
istanbul
istanbul is correct. 10pts to player2
OT
ankara is correct. 10pts to player1
YT
bursa
bursa is correct. 10pts to player2
OT
adana is correct. 10pts to player1
YT
denizli
denizli is not correct or the answer already given. -5pts to player2
Points Table
Player 1: 30 points
Player 2: 15 points
auzon@Win10Pro:/mnt/d/Projects/UniversityAssignmentsPrivate/SocketC/QuizGame(TermProject)/src$
```

Player2 (Second client that connects after player1)

5. Sources

The Definitive Guide to Linux Network Programming (2004 - Appres)