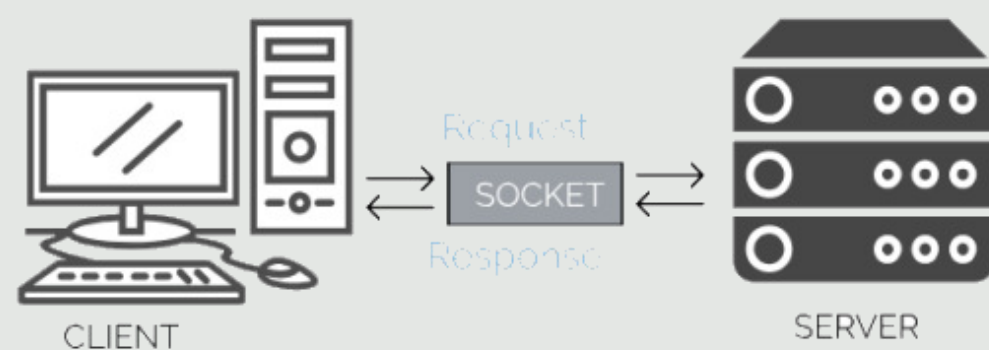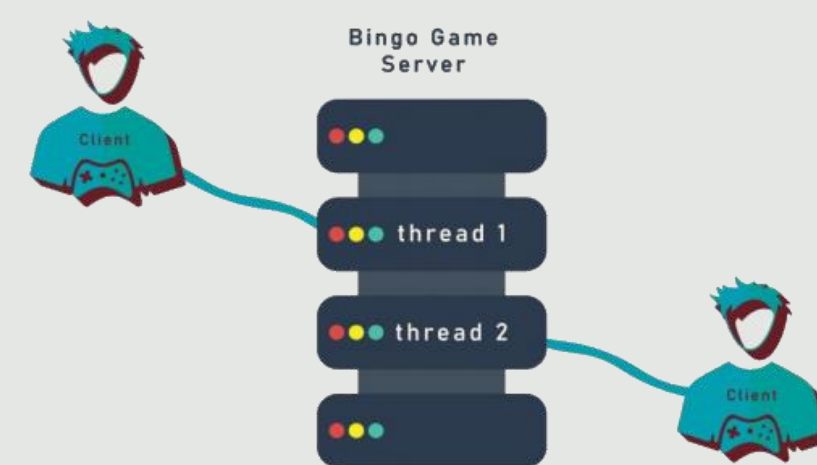# Knowledge Game

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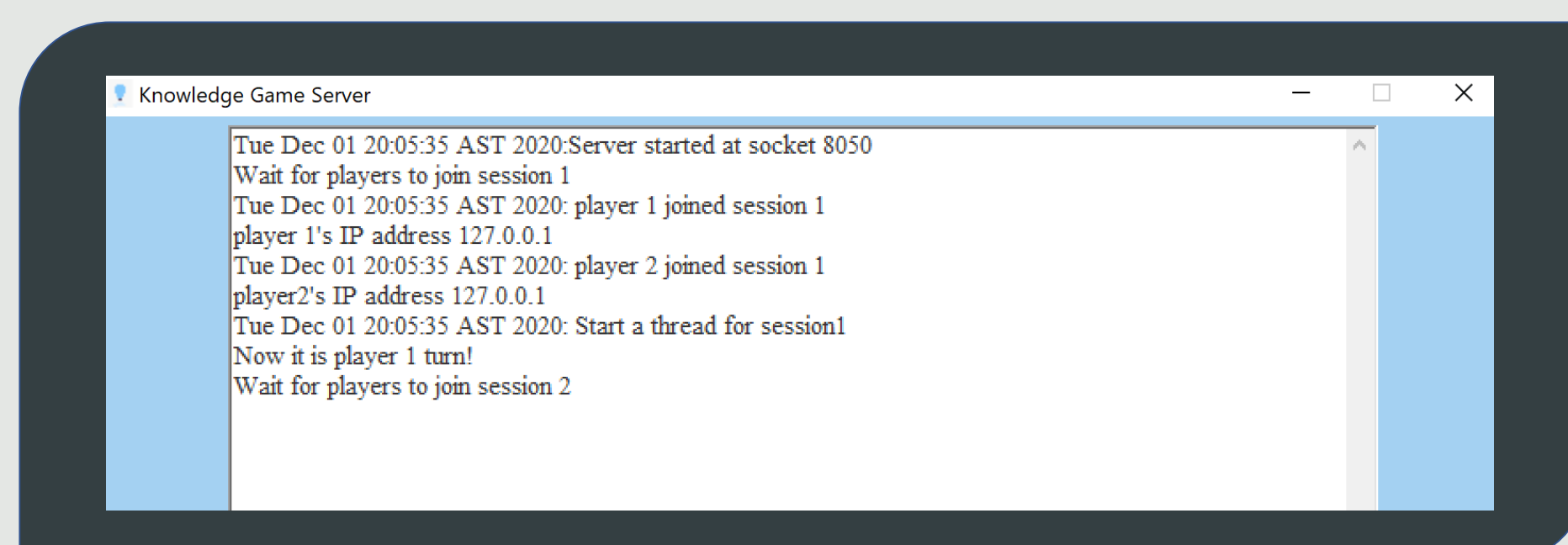
Introduction

A Client-Server multi-player Knowledge Game based on TCP socket programming. Players connected through socket and using multithreads. Implementation using JAVA
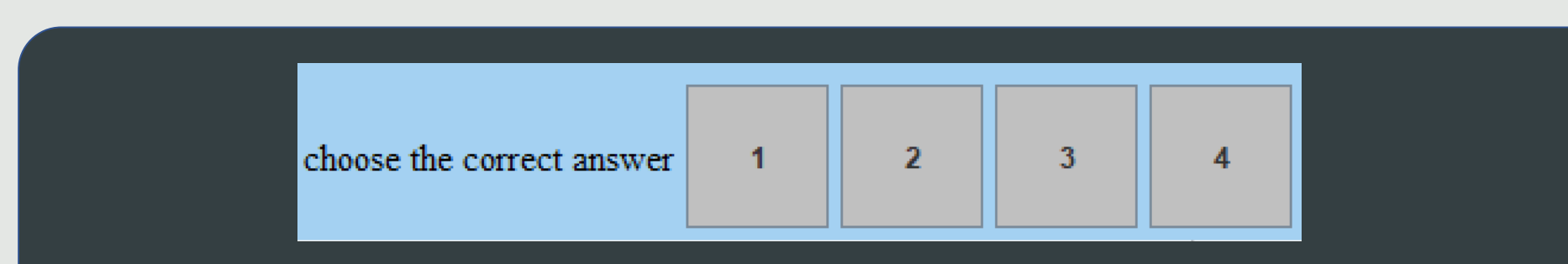

Threads

The possibility of playing the game by several players at the same time is due to the use of threads in server side. Separate thread will be assigned for handling each client request. We use Multithreading to be able to run the game for multiple players on multiple devices

Sample Output - Server


```
Tue Dec 01 20:05:35 AST 2020:Server started at socket 8050
Wait for players to join session 1
Tue Dec 01 20:05:35 AST 2020: player 1 joined session 1
player 1's IP address 127.0.0.1
Tue Dec 01 20:05:35 AST 2020: player 2 joined session 1
player2's IP address 127.0.0.1
Tue Dec 01 20:05:35 AST 2020: Start a thread for session1
Now it is player 1 turn!
Wait for players to join session 2
```

Sample Output - Client


```
Welcome to online based quiz!
Tue Dec 01 16:33:44 AST 2020 Connecting to server
you are player 1
waiting for palyer 2 to join!

Player 2 has joined. You start first!
Its now your turn!
Selects from among the process in ready queue and allocates the CPU one of them'
1.short-term scheduler
2.medium-term scheduler
3.long-term scheduler
4.CPU switch
```

Buttons

choose the correct answer | 1 | 2 | 3 | 4

Summary

This project was intended to implement a game based on the Client-Server architecture and it uses TCP sockets, threads, and GUI's. We implemented a code using Java that consist of Client class and Server class that can be excuted in the different devices.