Network Programming - COMP-2100

Professor Salem Othman

Members: Ghasif Syed, Tong Trinh, Yehua Chen

Due Date: March 12, 2021

**Final Project Proposal**

**Blackjack**

**1. Project Planning**

After discussing with each other, we decided on implementing the card game Blackjack through socket programming for our final project. The reason why we choose this topic is that this is a good opportunity for us to apply the socket programming (the communication between client and server) in a real application. As you know, Blackjack is a card game that pits player versus dealer, which is a great opportunity to have the server act as the dealer and the player as a client. Another reason we chose blackjack is that we are all familiar with the game and have played it before. On this game, the client is considered as the player, and the server is considered as the dealer. This game can have up to five players or more. An example of a winning situation in blackjack is, if a player’s hand has a greater total point value than the dealers without going over 21 points, the player wins. Another situation that may arise during gameplay, is if both the dealer and player have the same hand or points the round is a tie. That is our idea for our final project, we hope you enjoy it.

**2. Project Implementation**

To implement this project, we will be using the Python programming language. The IDE we will be using to collaborate, and code is Spyder. We will create two python files (one for client and one for server) and allow them to communication with each other. For this program we will be utilizing a client to server relationship as the game of blackjack suits that best. The relationships that can be derived from this are as follows, server acts as the dealer, client acts as a player, with that we can facilitate communication between them. Within the communication we can ask the client prompts such as “hit/stay”, the data from these prompts can be transferred via the client connecting to the server through an IP address. This game allows multiple players to play at a given time against the dealer/house. We will be utilizing the command line to communicate between server to client with prompts and information (player/dealer’s hand).

**3. Week Division**

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| Week 7 (3/1 to 3/5) | Finish up proposal |
| Week 8 (3/8 to 3/12) | Meet with the group and sketch out the bare bones of how we want to implement our game. Start with creating client/server files to make sure communication is working. |
| Week 9 (3/15 to 3/19) | Start coding the game of blackjack (Basic) |
| Week 10 (3/22 to 3/26) | Finish up the code, clear up some edge-cases for wins/losses. |
| Week 11 (3/29 to 4/2) | Apply the blackjack program to the client server. Finish up the project |
| Week 12 (4/5 to 4/9) | Make sure to clean up code, and any bugs by playtesting the game with each other. Finish project report. |
| Week 13 (4/12 to 4/16) | Prepare the presentation for the project. |