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Link to Github Repository: https://github.com/Siyigao991122/CS-5001-Final-Project.git

Final project retrospective

By creating the whole project 100% on my own without any external resource used, I'm deeply surprised by how far I've reached in programming at this stage. The first thing I've learned from the project is to draw my logic flow chart for the game about where to start, options made in the game, branches in the process, iterations in the game and bet updating throughout the whole project. These elements have to be implemented in order in the logic loop and I learned how to alter or concatenate the wrong or redundant parts from my logic chart. Besides, the design of the project, the methods used to realize the functions and features in my project are the main part of my studying progress, like loops, class, data types, if-statement, and error handling. These concepts taught in class have been fully implemented and practiced in my project and my knowledge about these python coding methods have been elevated by my own devotions to this project. This time, I used these methods guided by nothing but myself, so I feel like using these tools more like a master.

I really like this project because this is not the topic that I gained from outside examples or material, but from my own life and hobby. I enjoyed playing Texas Poker with friends, so I feel more passionate about this project compared to just following some existing video instructions on YouTube. Besides, this project contains a similar logic flow from the star_rating homework, which is the homework that interested me most in this class, so I would like to play with this logic again and create something new by combining my hobby. For me, the user interactive part in the game is also another attraction to me that I feel like I'm considering from the user side about a project and the possibilities that users could have had while playing this game. Thus, another important thing I learned from user interactions is about testing the code, since users are unpredictable on the answers given to the program, so I tried to think of as many possible situations as I can while coding for the project and tested the functions by different inputs.

While enjoying the feeling of achievement in the project, I also met many challenges on my way. The most challenging part for me was to determine how to compare the poker hand I got after round three, because I have to figure out a way to decide which side wins the game. After trying sorting methods and tuples, I settled on a dictionary, which can meet my requirement to compare both the suits and ranks of the card. However, there's still many challenges in the comparison of ranks, because there could be two different pairs of ranks to form the "Two pairs" poker hand, but I don't know how to count the appearance of values that are both equal to 2 in a dictionary. After struggling to find a way to count the frequency of specific values, I instead extracted the key with the value of 2 from the dictionary and used the 'len()' function to see if the length of the extracted key equals 2. Since if there are two keys with value of 2, it means there are two

different pairs in the poker hand. I solved this problem by an indirect method. Absolutely, there were other obstacles, but I remembered this one especially since I struggled on this for quite a long time.

At this stage, the project was completed, but the features in the project still have a long way to go. Personally, I think the game can definitely have a front-end design enabling the users to see the cards on the board and get a visualizing experience. Besides, I can still work on the process of the game, since now the game just has one full round, which means after knowing the result, the game ends there. But I can definitely make changes to the code to make the game continue on for more rounds till the bet score of one side reaches 0. Also, due to the game being text-based, I can feel it gets really “dry” and “cold” like a machine. Thus, I can work on modifying the code by adding more flexible choices or funny words to the project to improve the gaming experience.

I’m a self-driven person who believes my life experiences are hints for my career and I can definitely make use of it. Thus, for me, studying computer science not just means “I got a job as a programmer in FLAG”, but means a lot more than that. Just like my inspiration in creating this project, my ability is to realize the thing I want to accomplish in future instead of a job securing activity, since in that way, my life will be like a cold and dry text-based game. Thus, creating a project for me is a small version of zero to 1 and as a computer scientist in the future I can make it happen in a broader sense.