Blackjack.py
1. Introduction

       This will be a traditional blackjack game that allows you to hit, stand, and double-down on 10 and 11. It is a 2 deck blackjack game.

2. Design and implementation

       This is meant to be a close representation of how a video blackjack slot machine would play, however without the option to buy insurance and with the dealer's hand faceup. I'm pretty familiar with how blackjack works on tables and slots so I was trying to make it as realistic as possible. I did this by ensuring that my if statements match with the correct order and dealing order as the real games, with the one exception being that a card is hidden in real life from the dealer's hand. A lot of the challenges were trying to figure out ways to keep the point values for cards while not making a simple deck without face cards or suits for the cards. I constantly kept changing the user interface to make sure that it's how I wanted it to be, so it can be ran once and account for multiple users and run a two deck shoe fresh after each hand, as a video poker machine would do. I took natural inspiration from previous workshops in order to achieve the desired outcome and ensure that it is a fully functioning game.

3. Conclusions

       I learned a lot about the behaviors of tuples, lists, dictionaries, and print statements. The most complex part was ensuring that the packages were being imported properly and still functioning without throwing any errors between all of the different instances where they get called. In future versions of this I will have classes for card, deck, and possibly more however, at the time of making it I was unsure of the best way to generate those classes and cards where the values would pull properly and be able to be evaluated as desired. In the future, I'd like to add the dealer having hidden card/value until after the player stands as well as the ability to buy insurance, however I was unsure of a good way to pop a card into the dealer had for their second card and not display that second card while still showing the first card.