Blackjack App
for UTM CSCI 352

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Abstract

This app will allow you to play a standard game of blackjack against a simple AI dealer. The rules for our blackjack game are as follows: the dealer must stand on 17 and blackjack pays 3:2. No actual money will be required to play this game; the money/chips will be completely virtual. However, since this game is mostly played in casinos, our target audience will be adults 18 years old and older. The app will minimally be played in the console, but we could expand the app outside of it if we are able to do so.

1. Introduction

For now, our project is simply called Blackjack App. It will allow you to play a typical game of blackjack against an AI dealer. The rules for our blackjack game are as follows: the dealer must stand on 17 and blackjack pays 3:2. No actual money will be required to play this game; the money/chips will be completely virtual. However, since this game is mostly played in casinos, our target audience will be adults 18 years old and older. We are making this app for a few reasons. First, we think it will be a fun project to work on. Second, this app will give people the option to play blackjack without actually gambling any real money, which is great for people who either enjoy the game or want to practice. Finally, this project is flexible in that we can add on to the project should we feel that we will finish too soon, and we could possibly even shift to a more complex game such as three-card poker and reuse a lot of code from the blackjack app.

1.1. Background

Minimally, we expect the user to know how to play blackjack. However, we could implement a tutorial as a stretch goal to remove this requirement.

1.2. Impacts

Although our project is very small and limited, if distributed the project could possibly have a cultural impact by getting more people into the game of blackjack. It could also potentially be used for data research by simulating thousands or millions of blackjack hands.

1.3. Challenges

We forsee the most challenging part of this project as how the dealer AI is going to work. It will likely involve recursively creating Card objects and adding them to a Hand object, which needs to be checked against the player's Hand.
Another challenging part of this project would be creating the graphical user interface for the app should we decide to do so.

2. Scope

In the worst case (console app), we will be done with this project when the user can accurately play as many blackjack hands as they want to by using console I/O.

In the best case (user interface), we will be done when with this project when the user can accurately play as many blackjack hands as they want through a functional and stylish user interface.
As mentioned earlier in this paper, there are a few stretch goals we can potentially meet should we be able to do so:

1) Create a tutorial for users who do not know how to play blackjack.
2) Create a graphical user interface.
3) Only if needed: switch to three-card poker.