CMSC 12 Project Specifications

Blackjack Game

Rules of the game:

1. A standard deck of 52 cards is needed for the game.
2. The player will initially be given two random cards (you can use Python's `random` library). The dealer (computer) will also receive two random, unknown cards. Suits are denoted as h-heart, d-diamond, c-club, and s-spade (or you can use ASCII symbols).

```
Your cards are:
     5d 3h
```

3. The goal is to add your cards' values and get as close to a total of 21. If you exceed 21, you lose the game.
4. You will choose to either stand or hit.
    a. If you choose to stand, you will not be given any more cards and your total will be compared to the dealer's total. If your total is higher, you get 10 points and a new round is played. If your total is lower, you lose 10 points and a new round is played.
    b. If you choose to hit, you will be given a new random card from the deck to add to your total. You can choose to hit multiple times until you stand or your total exceeds 21.

```
Your cards are:
     5d 3h

[1] Stand
[2] Hit
Enter choice: 2
```

```
Your cards are:
     5d 3h 10d

[1] Stand
[2] Hit
Enter choice: 2
```

```
Your cards are:
     5d 3h 10d Ad

[1] Stand
[2] Hit
Enter choice: 1
```

```
Your cards are:
     5d 3h 10d Ad

Dealer's cards are:
     10c 2s

You win 10 points!
```

5. Kings, Queens, and Jacks have a value of 10.

6. Aces have a default value of 1. However, if your first two cards are an Ace and a 10 (10, J, Q, K), the Ace will have a value of 11 and you automatically win the round.
7. Hitting blackjack (reaching 21) will merit the user 21 points and the game moves on to the next round.

```
Your cards are:
     Ad 10h

You hit blackjack! (21 points)
```

8. Losing to the dealer will cost you 10 points.

```
Your cards are:
     5d 3h

[1] Stand
[2] Hit
Enter choice: 2
```

```
Your cards are:
     5d 3h 10d

[1] Stand
[2] Hit
Enter choice: 2
```

```
Your cards are:
     5d 3h 10d Ad

[1] Stand
[2] Hit
Enter choice: 1
```

```
Your cards are:
     5d 3h 10d Ad

Dealer's cards are:
     10c Qs

You lose 10 points!
```

9. Exceeding a total of 21 will end the game.

```
Your cards are:
     Js Kc

[1] Stand
[2] Hit
Enter choice: 2
```

```
Your cards are:
     Js Kc Qh

You exceeded 21. Game over!
```

Requirements:

1. Your project must execute the game logic/idea presented above.
2. Once there are fewer than 10 cards left in the deck, a new deck should be used before the next round.

3. The dealer will not hit or stand. The initial 2 cards will be their final cards for the round.
4. It must implement a scoring system. Scores should be recorded once the game ends.
5. High scores should be recorded and arranged from highest to lowest.

```
High Scores
 Rank     Name     Score
  1       Ilay      52
```

6. High scores should be saved in a file. Previous high scores should still be viewable even if the game was closed/restarted.

Bonus points (up to 2 points) will be awarded to those who excel in this project (e.g. shows creativity, extra features, etc).

Note:
Do not use PyGame, 3rd party libraries, or any kind of data parser (even built-in ones like JSON parser are NOT allowed)

If you use an IDE like PyCharm, make sure that your code still runs even when you execute it in the terminal without PyCharm. You will not get points for code that doesn't run. "But it runs on PyCharm" is not an excuse.