CS 246 Straights: Final Project (DD1)

Demo

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The following step by step instructions will walk you through a demo of the Straight's game project created for this final exam:

1. Compile the program using the "make" command
2. Then run the program using the command ". /straights [seed]", optionally providing a seed argument that will be used the shuffle the deck for reproducible results
3. Once you have run the executable mentioned above, you will be prompted to enter the type of Player you to play against for the 4 players this game supports (enter "h" for human and "c" for computer)
4. Then the game will commence, the player with the 7 of Spades will be picked to go first and the game will continue in a fashion where each player gets a turn until all the cards have been played
    a. On each turn, each player can see the cards on the table, as well as their hand and the possible legal plays
5. Once all the cards have been played, if the point for any particular player exceeds 80, the player with the lowest score deemed the winner
    a. The game will output each player's total score, the score of the most recent round, and the discards in their most recent round
    b. If no particular player's score exceeds 80, then the deck is reshuffled and dealt, and another round begins with the process being the same as described above

The following extra features were implemented:

- No explicit memory management was used. Throughout the creation of the whole program, a specific effort was made to not make use of explicit memory management, while still creating a maintainable and efficient program for further expansion.
- In order to accommodate this feature, I had to make use of the techniques taught in the "Advanced C++" section of the course, specifically smart and unique pointers. Moreover, I also heavily relied on the use of the Iterator design pattern as smart and unique pointers worked well with it.