Discussion 9

ECE 17

Assignment 6 feedback

- We need assignment 6 up and running for Assignment 7
- I will spend a considerable amount of time at the end giving time to answer assignment 6 questions

Assignment 7: 5 card poker game

- Card Class
- Deck Class
- Hand Class
- Player Class
- Round Class

Card Class

- Same as assignment 2, implement 52 cards
- Have functions that tell you if cards are greater or equal
- Don't forget OCF functions

```
//OCF methods are required, but not shown here...

bool  operator==(const Card &aCard) const;  //test if cards are equal
bool  operator<=(const Card &aCard) const;  //test if cards are <=

//Shows a card on terminal in short form...
friend std::ostream& operator<<(std::ostream &anOutput, const Card &aCard);
```

Deck/Hand Class

- similar to A2 with major additions changes
- MAKE SURE This works or else the game will not run properly

- HandTypes determineRank() const;
    - Compares current hand with HandTypes and return **best** HandTypes
    - Make sure it is the **best** hand returned:
        - Ex: A-A-A-A 9 can be counted as Four of a kind, three of a kind or two pair or one pair
        - Make sure you return the highest HandType, so in this case four of a kind

- bool operater >(const Hand &aHand) const;
    - Compares inputted "aHand" with the current hand
    - Ex: in calling function: hand_1 > hand_2
        - Means we are seeing if hand_1 is greater than hand_2
        - Hand_1 will be "this" hand and hand_2 will be aHand
        - Think like this: "hand_1.greaterThan(hand_2)"

Player Class

- Include game mechanics that relates to the player:
    - isFolding
        - Return false normally
        - Return true if the player is quitting this round
    - placeBet
        - Return a float of the bet value
        - Must be greater than aMinBet
    - discardUnwanted
        - Drop cards that aren't useful
        - Return number of dropped cards
- Feel free to write your own helper functions -> be sure to comment on them accordingly

Assignment 6 questions?

- Did you build HandTypes correctly?
- Are you comparing cards correctly?

1. Royal flush

A sequence of 5 highest cards (all in the same suit). Example: `{A♦, K♦, Q♦, J♦, 10♦}` (shown in order for clarity)

2. Straight flush

Five cards in a sequence, all in the same suit. Examples : `{8♥ 7♥ 6♥ 5♥ 4♥}` , or `{7♦ 8♦ 9♦ 10♦ J♦}`

3. Four of a kind

All four cards of the same face value (suit doesn't matter). Example: `{K–K–K–K 3}`

4. Full house

Three cards with the same face value. `{T T T 9 9}`

5. Flush

Any five cards with the same suit, but not in a sequence. Example: `{4♦ J♦ 8♦ 2♦ 9♦}`

6. Straight

Five cards in a sequence, regardless of suit. Example: `{5 6 7 8 9}`

7. Three of a kind

Three cards of the same rank, regardless of suit. `{Q–Q–Q 2 3}`

8. Two pair

Two pairs of two cards with same face value. Example: `{K–K 7–7 2}`

9. One Pair

Two cards of the same face value. Example: `{A–A 5 2 8}`

10. High Card

When you can't make any of the hands above, your highest card is the only play.

Any Questions?