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Final Project Proposal

A House Of Cards

Our project is a casino simulation, involving various styles of card games, a gambling system, and many other potential features, like a slot machine game, and a semi-intelligent computer opponent that is responsive to inputed text. It will incorporate a group of subclasses that represent different card games, such as Blackjack, Texas Hold'em, Crazy Eights, and Bluff under the Superclass CardGames. The user will be able to interact with a computer opponent that can play at different difficulty levels, and the games can be played with certain stakes, so that the outcome of these games will affect the balance of a "bank account" that the user will have throughout their casino experience. The person can level up depending on the amount in their balance account. After the player has reached a certain level, they can choose which rewards they want. The player will also be kicked out once they reach a negative balance , or after they win too much money and are bankrupting the casino.

Our first priority is to get the CardGames superclass(which will be the superclass for all card games) to work, followed by getting the computer-generated opponent in tip-top shape, and finally adding in the little things(such as betting money, minigames, and other cool little bells and whistles).

<u>List of features we want to implement in order of priority:</u>

1. Card games superclass
    a. A subclass for each of the following
        i. Blackjack
        ii. Texas holdem
        iii. Crazy Eights
2. BankAccount
3. Computer Opponent superclass
    a. An opponent subclass for each of the following
        i. Blackjack
        ii. Texas holdem
        iii. Crazy Eights
    b. Varying levels of difficulty
4. Casino/Gambling System
5. Extras
    a. Mini-games on the side
        i. Slot machine
    b. More card games!
        i. Bluff
    c. A very limited but functioning chat box
    d. Limited graphics

Timeline

Jan 9th: have the superclass card games in some sort of working condition, also have clearer plan with UML diagram.

Jan 11th: have phase 1 of the project complete and debugged

Jan 13th: have phase 2 of the project complete, start phase 3

Jan 15th: have phase 3 of project complete, start phase 4

Jan 16th: have phase 4 of the project complete

Jan 18th: extra stuff started??

Jan 21st:

What skills are we implementing?

1. We will use polymorphism to establish a relationship between the card games(OOP)
2. Interfaces to have a standard criteria of what each game will requires.
3. ArrayList to store “decks” of cards
4. Iteration
5. User input
6. Wrapper class

Meaningful Use of OOP