Project proposal: Our Object-Oriented Programming course project involves creating a 2-player Euchre game.

COSC-2200-07

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Proposal

For our project we have choosing to develop a program for the Card game Euchre. For this project we will be using C# to program our game.

Euchre is a 2-4 player card game that uses 24-32 cards from a standard deck of cards. In Euchre you do not use any of the Cards from 2-8 you only use 9 10 J Q K A. For our project we will make our program be a 2-player game.

To complete this project our group members will be using Microsoft teams to set meetings and schedule discussions. Our group members will also be using a GitHub repository to code together, share each other code and updating each others work together to complete the project.

Project Objective:

To learn new features in C# and new concepts in OOP to gain more knowledge, understanding an experience about coding, C#, and OOP. In turn this will allow us to complete a seamless user-friendly program for users to enjoy the game of Euchre.

Setup:

1. First all the cards except 9 10 J Q K A are removed from a standard deck of cards.
2. The Dealer is decided for the first hand the dealer is decided by player going back and forth receiving cards from a shuffled deck. The first player to draw a black jack will be the dealer for that hand.

Dealing:

There are 2 versions of dealing (both are acceptable for this project) or better yet, give the player the option to choose.

Method 1: each player is dealt 5 cards, and the remaining top card is turned up as the initial potential trump.

Method 2: each player is dealt 4 cards face down, and then 4 cards face upon top of the face down cards. Each player then receives 3 cards to hold secretly in their hand. The top card, of the 2 remaining, is turned up as the

initial potential trump.

Card Ranking:

The top card from the remaining deck is flipped over. The non-dealing player

has the option to either pass or order the dealer up.

* If the non-dealer orders the dealer up, the dealer exchanges the face-

up card with one of their other in-hand cards and that suit becomes.

trump.

* If the non-dealer passes, the dealer now has the choice to either pickup the card or pass by turning the card face-down.
* If the dealer picks up the card, they place one of the in-hand cards face down to replace the picked-up card and the suit of the picked-up card becomes trump.
* If the dealer turns down the card, then the non-dealer gets to name any suit, except the one turned down, as trump, or they can optionally pass.
* If the non-dealer passes, then the dealer has the same option to make any suit, other than the turned down suit, trump, or to pass.
* If the dealer also passes, the hand is void and the dealer loses their turn, and the hand is restarted.

After Trump is Decided:

The non-dealer plays first by choosing any card from their 4 face-up cards (11 trick version) or their hand (either 3 or 5 cards), except a trump card. The dealer then attempts to beat the card played by playing a higher card of the same suit or by playing a card of trump. However, suit must be followed, meaning you may not play a trump card, if you have a card face-up, or in your hand, that matches the suit of the lead card.

If a face-up card has been played, with a face-down card under it, then after the trick has been decided, the face-down cards are turned over to be visible before the next lead card is played.

The player who won the trick, with the highest ranked card, then leads the next round. There are either 5 or 11 tricks in a hand (pending which method you play), and therefore winning either 3 or 6 means you won the hand.

Scoring:

If the player who decided what trump would be wins the hand, they receive 1 point.

If the player who decided what trump would be gets all the tricks, they receive 2 points.

If the player who did not decide what trump is wins, they receive 2 points.

If the player who did not decide what trump is wins all the trick, they receive 4 points.

Game Objective:

The objective of Euchre is to be the first person to reach 10 points.

GitHub: https://github.com/Nathaniel-Wesener/COSC2200\_Euchre