

Texas Hold'Em (Poker) Project

Team 01 Tutorial 09

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Description:

Our project idea is to make the card game Poker. In our game we plan to have 1 human player vs AI players (with a max of 5 players per game). We are planning to create the standard Texas Holdem version of Poker with all of the rules of the game included.)

Standard Game Example:

The user will be shown a home screen where they can choose to queue a game with the amount of AI players they want (max 5). The player will be able to set the start amount of money (poker chips) for the game. Upon startup of the game the game screen will show a standard poker table where each player will be dealt 2 random cards (hidden to other players), and in the middle there will be 5 random cards dealt out. The standard betting rules will apply, there will be a preflop betting round after which 3 of these 5 cards in the middle are flipped face up and visible to the players, while 2 cards will be face down and unviewable to the players. Each turn there is a betting round. Each player will have a choice of calling, folding, checking, and raising (these 4 moves are based on poker rules) based on the previous players inputs. Based on the players choice to fold, raise, or check we will create appropriate animations. After the betting round has stopped, 1 unrevealed card in the middle will flip over. The round will continue until all 5 cards have flipped over and the player with the strongest hand wins or every player except 1 has folded. A player will be eliminated from the game when they run out of money (poker chips), and a player will win when every other player is eliminated.

For more information and the rules we will be using for the game can be found on :

<https://www.pokerlistings.com/poker-rules-texas-holdem>

Possible Parts We Want to Implement:

- A menu where we can customize the amount of players and chips
- Player vs. Player and Player vs. AI
- An option to end the game early (before all but 1 player runs out of chips)
- Multiple AI difficulties, possibly with one difficult having the AI use statistics to make moves

Challenges:

- Handling all the possible hand combinations and appropriately ranking them
- Developing an AI that makes smart moves
- Setting up a proper player vs. player game

Demo 3 Goal:

- Having a working GUI code
- Having player vs AI functioning
- Allow for a user to play through a game properly