Texas Hold’em Program Plan

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We are going to make a program on which player can play a game, called “Texas Hold’em”. Wikipedia describes the game as follows:

*Texas hold 'em (also known as Texas holdem, hold 'em, and holdem) is one of the most popular variants of the card game of poker. Two cards, known as hole cards, are dealt face down to each player, and then five community cards are dealt face up in three stages. The stages consist of a series of three cards ("the flop"), later an additional single card ("the turn" or "fourth street"), and a final card ("the river" or "fifth street"). Each player seeks the best five card poker hand from any combination of the seven cards; the five community cards and their two hole cards. Players have betting options to check, call, raise, or fold. Rounds of betting take place before the flop is dealt and after each subsequent deal. The player who has the best hand and has not folded by the end of all betting rounds wins all of the money bet for the hand, known as the pot.*( [Texas hold 'em - Wikipedia](https://en.wikipedia.org/wiki/Texas_hold_%27em))

If we can introduce local communication, we will be able to play against more than 3 people. At least, we will realize one-on-one matches with poker AI. In that case, the elements displayed in the GUI are: 2 cards for the player, 2 cards for the opponent, 5 community cards, the amount of chips each has, the amount of chips each wagered, the amount of chips in pot. As for the timing of the display of the screen, there are exceptions, but while following the basics, at the first stage, 2 cards for the player are shown at the lower side of screen and 2 cards for the opponent are face down at the upper side of the screen. 5 community cards are also face down at the center of the screen. At the next stage, 3 community cards are shown. At the next stage, another community card is shown. At the last stage, the last community card is shown. At each stage, the chips wagered by the players are displayed in front of the players, and at the end of each stage, chips are collected in the pot. As the winner is determined at each stage, any chips previously collected in the pot will belong to the winner, the cards that have appeared so far will be initialized, the player will see two new cards, and the remaining seven will be dealt face down. In this sequence, the amount of chips for each player is always displayed. When either player's chip amount reaches zero, a message box displays the name of the player with the remaining chips as the winner and the game ends.