

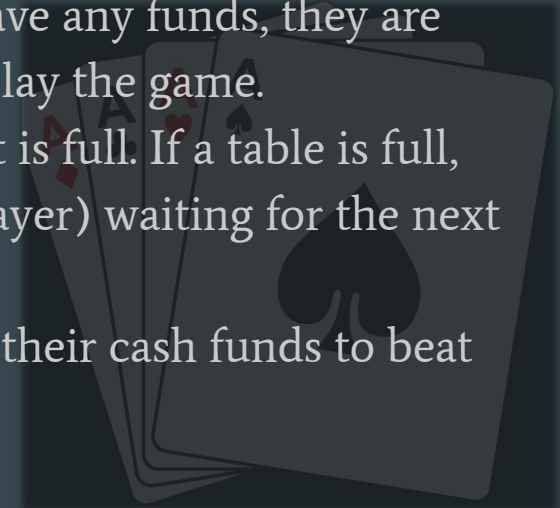
BlackJack

Group 5



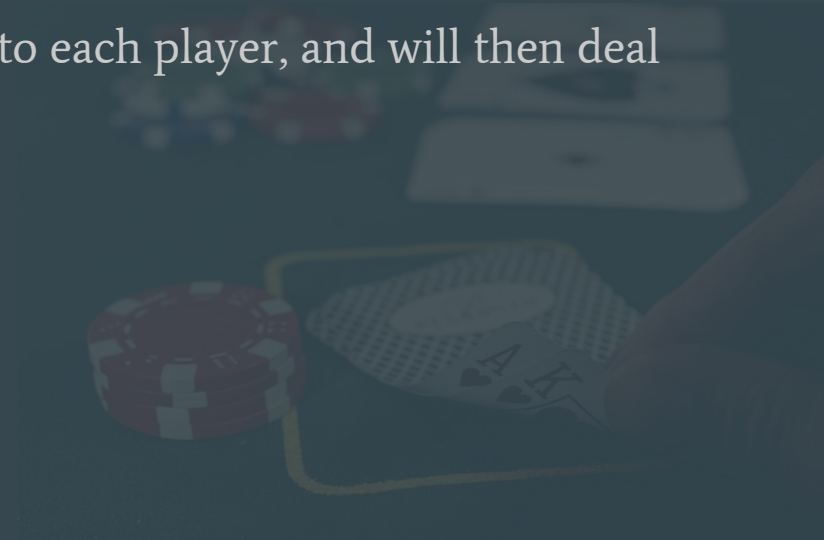
Top requirements

1. Players should be able to login with their unique userID and password in order for them to play the game. If the system does not recognize it, the user can create an account or try again.
2. Once in the system, players should be able get funds to play (no actual payment necessary, funds provided by the game). If they do not have any funds, they are not able to play. They should be able to read on how to play the game.
3. Once logged in, players will be able to join a table until it is full. If a table is full, there must be at least two people (one dealer and one player) waiting for the next table to start. A full table includes 7 players.
4. Once the game starts, players must place their bets from their cash funds to beat the dealer.

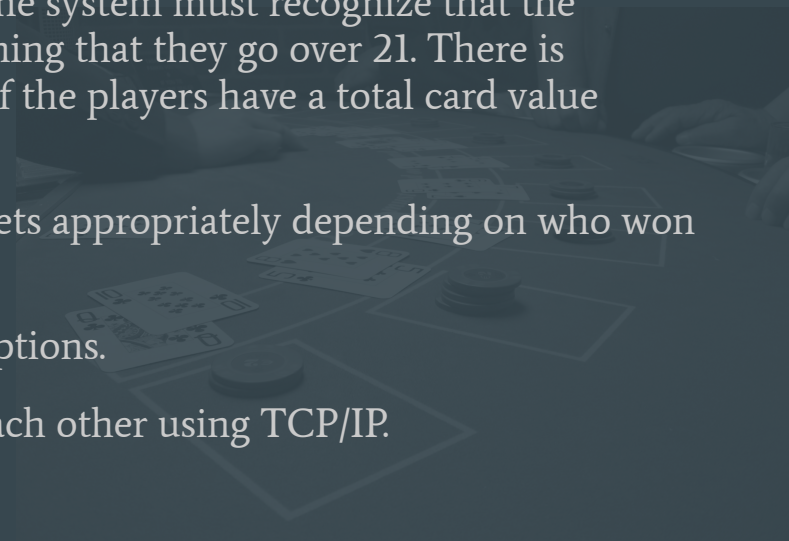


Top requirements

5. The system must be able to calculate what the player have on their hand. Each number values are as is, but face cards are worth ten. Aces can either play as one or eleven. For example, if the player have a queen and an ace, the system must recognize that it is blackjack and that player or dealer has 21.
6. The dealer will deal clockwise giving two cards to each player, and will then deal two cards to themselves, one of which is face-up.



Top requirements

7. Players can either be the dealer or player. The user is able to choose whether they want to be the dealer.
 8. Players should have the option to *stand*, *hit*, or *surrender*.
 9. The rules of BlackJack should be implemented. In details, the system must recognize that the winning number is 21. Both dealer and players can bust, meaning that they go over 21. There is another way that the system must recognize for a win, that's if the players have a total card value greater than the dealer and not bust.
 10. The system must be able to track and update funds and bets appropriately depending on who won and who lost.
 11. System must implement a GUI for any user-interactable options.
 12. Users must be able to communicate with the server and each other using TCP/IP.
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Top 5 Class Candidates

1. Game: The core of the program. Every game has players connected to it, has its own set of playable cards (two games cannot share the same decks), has its own scoreboard, players, etc.
2. Player: There is no game without players playing it. Each player must be able to have their own hand of cards, their own in-game currency amount, their own scores, etc.
3. Dealer: Similar to a player, a game would not be able to start until there's a dealer to beat. The dealer has the ability to start a round by choosing to shuffle and deal the cards. All players play against the dealer.
4. Decks and cards: This would be two separate but related classes. The in-game deck comprises of 6-8 standard decks of playing cards (each standard deck having 52 cards). Every card has its own suit and value, as well as its game value as per the rules of BlackJack.
5. Scoreboard and log: The scoreboard should track the amount a player bets and their losses and winnings, in both value of currency and times won/lost. The log should keep track of game information from the scoreboard stored in a file.