Requirements Summary Statement:

The intended purpose of this software application is to implement a game of blackjack. In the game of blackjack, one or more individuals play against the dealer (or house). Although there might be more than one player, each player plays only against the dealer, and not any of the other players.

From a player's perspective, the goal of the game is to draw cards from the deck until the sum of the face value of all the cards equals 21 or as close to 21 as possible, without exceeding 21. If the sum of the face value of all the cards exceeds 21, the player loses. If the sum of the face value of the first two cards equals 21, the player is said to have blackjack. The dealer plays the game along with the players. The dealer must deal the cards, present a player with additional cards, show all or part of a hand, calculate the value of all or part of a hand, calculate the number of cards in a hand, determine the winner, and start a new hand.

A card must know what its face value is and be able to report this value. The suit of the card is of no importance (but it might be for another game in the future). All cards must be members of a deck of cards. This deck must have the functionality to deal the next card, as well as report how many cards remain in the deck.

During the game, a player can request that a card be dealt to his or her hand. The player must be able to display the hand, calculate the face value of the hand, and determine the number of cards in the hand. When the dealer asks the player whether to deal another card or to start a new game, the player must respond.

Each card has its own face value (suit does not factor into the face value). Aces count as 1 or 11. Face cards (Jack, Queen, King) each count as 10. The rest of the cards represent their face values.

The rules of the game state that if the sum of the face value of the player's cards is closer to 21 than the sum of the face value of the dealer's cards, the player wins an amount equal to the bet that was made. If the player wins with a blackjack, the player wins 3:2 times the bet made (assuming that the dealer does not also have blackjack). If the sum of the face value of the player's cards exceeds 21, the bet is lost. Blackjack (an ace and a face card or a 10) beats other combinations of 21.

If the player and the dealer have identical scores and at least 17, it is considered a draw, and the player retains the bet.

\[1\text{The Object Oriented Thought Process (3rd ed.), Matt Weisfeld, Addison Wesley, pp. 110–111.}\]