Team members:

Dominic Behrig

Hunter King

Megan Lorfing

Mallory Rasco

Software Engineering 1 Project: Creating Blackjack

We decided to create a blackjack card game. We chose Blackjack because it is a game we are familiar with, and Blackjack is a card game with a dealer and at least one player. The goal of the game is to get a count as close to 21 as possible without going over 21. This is achieved through the cards dealt to the player(s) and the dealer. Ace cards are worth either 1 or 11. Face cards are ten, and all other card is the number on the card. The application will simulate Blackjack with a dealer and one player.

This application will be for entertainment purposes, and it will include an interface for the user to interact with. After the cards are dealt and displayed, the player can choose to: take another card, called a hit, or hold their total and end their turn, called a stand. The user will be able to select a button that will do the action for them. For instance, they would hit a button called "Stand" when they don't want to draw another card and "Hit" when they want to draw another card. We will account for when the player or dealer busts, which is having a count greater than 21. For instance, if the player has a King (worth 10 points) and seven (worth seven points) in their hand, then draws a six (worth six), their total is now 23, so they lose. Additionally, the dealer has its own rules. When the dealer's hand is 17 or more, they must stand. If the dealer's hand is 16 or less, they must draw more cards until their total is 17 or better, at which point the dealer must stand. Whenever a player or dealer busts, the program will respond to that and display who lost and who won, along with the values that the player and dealer had.

The ace card for our application can act as either a one or an 11. If an ace is dealt and the player's hand is below a 10, the ace will be an 11; otherwise, it will be a 1. As the game progresses and the circumstances change, we will have the program decide if the ace needs to be worth 11 or if it needs to become a 1 in order to prevent the player from busting. We will be ensuring that the cards we use for the application are readable and easily recognized by the user.