**Project 1**

**Black Jack**

CIS-5 48978

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**Introduction:**

This game is a simpler version of blackjack. The point of it is to play and practice Black Jack, however it lacks splitting and more technical aspects of the game.

**Summary:**

Project size: about 250 lines

This project includes all major concepts that we have covered in chapters 1-5 while also implementing iterative backups to Github which was a challenge because I’m not used to it. I did this project in two days with a total of about 10-12 hours of work. I feel like I could have made it a lot more professional and better looking but I decided to save all that for the next project iteration. I plan on adding many more features in the project two version of this program.

**Description:**

This program mainly uses functions to accomplish its goal, and a do-while loop to control the flow of when they are called.

**Flowchart:**

**Psuedocode:**

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**\* File: main.cpp**

**\* Author: Cory**

**\* Created on November 4, 2017, 8:18 PM**

**\*/**

**/\* Make an array to hold cards and have a**

**\* function that iterates over them to check value**

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**\* Have a do-while loop for the control of functions**

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**\* Have a function that generates the computers cards**

**\* and puts them in a string?**

**\***

**\*/**

**//No variable names over 7 characters!!**

**//Global constants**

**//Function prototypes**

**//Execution begins here**

**//Declare / Initialize variables / Initialize random seed**

**//Set random seed**

**//Initialize input and declare hit**

**//Declare each players hand**

**//String that holds who wins**

**//Initialize hand totals**

**//Output file**

**//Opening the file to edit it**

**//Process mapping**

**//Get players name**

**//Start the game**

**//Check if the player has 21 points**

**//File output if draw**

**//Check if player went over 21**

**//File output if player loses**

**//Check if dealer went over 21**

**//File output if player wins**

**//Ask player if they want to hit or stand on their cards**

**//Add a card if the player wants to hit**

**//If they stand, make sure dealer follows rules and then compare card values**

**//If player has higher value, they win**

**//File output if player wins**

**//If they have the same value they draw**

**//File input if draw**

**//Check if the dealer busted**

**//File output if player wins**

**//Only option left is to lose**

**//File output if player loses**

**//Check if the while loop is still valid**

**//Exit function and close files**

**//Close files, Don't forget**

**//Function to generate cards**

**//(not true probabilities but close enough for this purpose)**

**//Declare function used to check hand values**

**//Declare function that reads out the players cards**

**//Function that makes sure the dealer follows official rules of the game**

**//basically just hit if < 17**