syst 17796 Deliverable 1

# Overview

## Project Background and Description

Blackjack is one of the most widely played games in casinos. It uses a standard deck of 52 cards and is based on the mathematical concept of “probability”. Players on the table (minimum 1) have to play against the dealer, who draws two cards for each player and for himself from the deck of shuffled cards. Whosoever has the highest-scoring pair to a blackjack (21 points) wins. Reference to official blackjack rules:

https://www.casinoreports.ca/blackjack/rules/

Our group intends to replicate this game of “Blackjack” using object-oriented principles in Java. Our goal is to have a user play blackjack against the computer who is also the “dealer” in this case.

## Project Scope

Saim Khan/Hafsa Khan/Karim Kame/Hayoung Jungl: Coding / Design / Documentation

Each group member will be an equal part in all deliverables.

Technical scope: Blackjack is played between the player and the dealer. Therefore, the group is focused on making the functionality for at least one player, but we are aiming to make it two players. The dealer draws two cards at random for the player and two cards for himself. Our project deals with the functionality to generate these random cards and then follows the rules of Blackjack to declare the winner. The project will be deemed completed if the game follows all the rules of actual Blackjack for at least 1 player.

## High-Level Requirements

|  |  |
| --- | --- |
|  | [Describe the high level requirements for the project. For example:] |

The new system must include the following:

* Ability for each player to play the game
* Ability for each player to wager bets
* Ability for each player to see the dealer’s cards at the end of the round
* Ability for the game to communicate a win or loss
* Ability for players to know their status (score) at all times

## Implementation Plan

We plan to implement our project using principles of object-oriented programming. We will build a “key-value” pair to represent the values of cards in a deck(1, 2, 3 … J, K etc.). Using said value map, we will build a “randomizer” to generate random card values when being distributed to players and the dealer, which ensures our game is not “rigged”. Finally, the logic will compare each player’s “hands” with that of the dealer, and the winner will be decided according to the rules of blackjack. This summarizes the core functionality of our project. Additionally, we want to add a feature to wager bets before each round of blackjack is played, adding to the thrill and representing a real world scenario tad more accurately.

GIT URL:

<https://github.com/saimkhan065/SYST17796_PROJECT>

repository is public, so that all group members / instructor has easy access to the project. Each group member will fork the repository and use that as the development template. Each group member writes code assigned to them and pushes the changes on origin.Each group member will safe merge code before beginning their work.

Tools the group expects to use is several IDEs according to each group members preference( vsCode / IntelliJ / NetBeans )