syst 17796 Deliverable 1

design document template

# Overview

## Project Background and Description

Describe the project goals and final vision. Include a brief description of how to play the game you have chosen and a reference to the rules of the game you have chosen. Also describe the current starting base code.

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

Describe the names and roles of each team member. Describe the technical scope of the project by talking about the interface and how you will know when the project is complete.

## 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.