

# Memorandum

**NBCC: WMAD Jr A**

To: [REDACTED]  
From: Sacha Davidson  
Date: 03/21/2023  
Re: CardPG: Object-Oriented Programming Final Project

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Comments: This is a game I invented for the final project of OOP. I can adjust it to be more complex if necessary.

## Overview

- CardPG is a single-player, multi-level RPG based on a single deck of cards.
- The objective is to achieve a winning score for each of the 10 rounds.

## Gameplay

- The objective is to progress through each level without dying.
- The player flips a single card at a time from a standard deck of 52 cards. Red cards will deplete the user's health, while Black cards will add points to the user's score.
- To start the game, the player selects their role from a list of options. Each role unlocks a unique spell for the player, which is either cast by the player, is passive or occurs on death.
- The round ends when the player dies (0 HP) or reaches the required score.
- The Player's Health will reset after each successful round.
- A player wins the game if they complete all 10 rounds.

## Cards

- The Cards will be from a standard 52-card playing deck. The Deck will not include Joker cards.
- The Cards are drawn by the player one at a time.
- Red Cards (Diamonds and Hearts) will deplete an amount of Health equivalent to the face value of the Card.
- Black Cards (Spades and Clubs) will award points to the Player's Score equivalent to the face value of the Card.

## Stats

STATS	Health (HP)	Mana (MP)
Base Level	100	0
Increment	-1 per Red Card 0 is MIN → 100 is MAX	+1 per Black Card 0 is MIN → 3 is MAX
Effect	The game ends if the player's health reaches 0 & they cannot revive.	Players may use their spell once they have reached 3 MP (if applicable)

## Roles

- There are four (4) roles: Warrior, Beggar, Devout, and Druid, of which the player will select one at the start of the game.

ROLES	Warrior	Beggar	Devout	Druid
Spell Name	Second Wind	Rattle Cup	Sacrifice	Rejuvenation
Spell Cost	3MP (On-Death)	3MP	3MP	Passive (0MP)
Spell Effects	If MP is full upon death, the Warrior is revived with 1HP	Exchange 3MP for 1 score point.	Exchange 3MP and 3HP for 3 score points.	Druids heal 1HP each time a Black card is drawn.

## Rounds

- There are 10 rounds, each requiring a higher score to win.
- Player HP is reset to 100 HP at the start of each round.

ROUND #s	1	2	3	4	5	6	7	8	9	10
Base HP	100	100	100	100	100	100	100	100	100	100
Winning Score	70	80	90	100	110	120	130	140	150	160