Decrementor

Software Engineering COMP 4110
University of Massachusetts Lowell
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Instructor: Dr. James Daly

Project Overview

Decrementor is a roguelike card game that allows players to fight enemies by forming valid equations.

Motivation:

A good foundation in math is very important. Our game aims to solidify that foundation.

Overview of Features

Unlimited Game Play

Creation of equations with PEMDAS

Deck Building With Customization

Score and Leaderboard

Unique Random Enemies

Domain Research

Looked into other educational games.

We needed to find a way to balance fun with education

Project Constraints from Massachusetts Mathematics Common Core standards

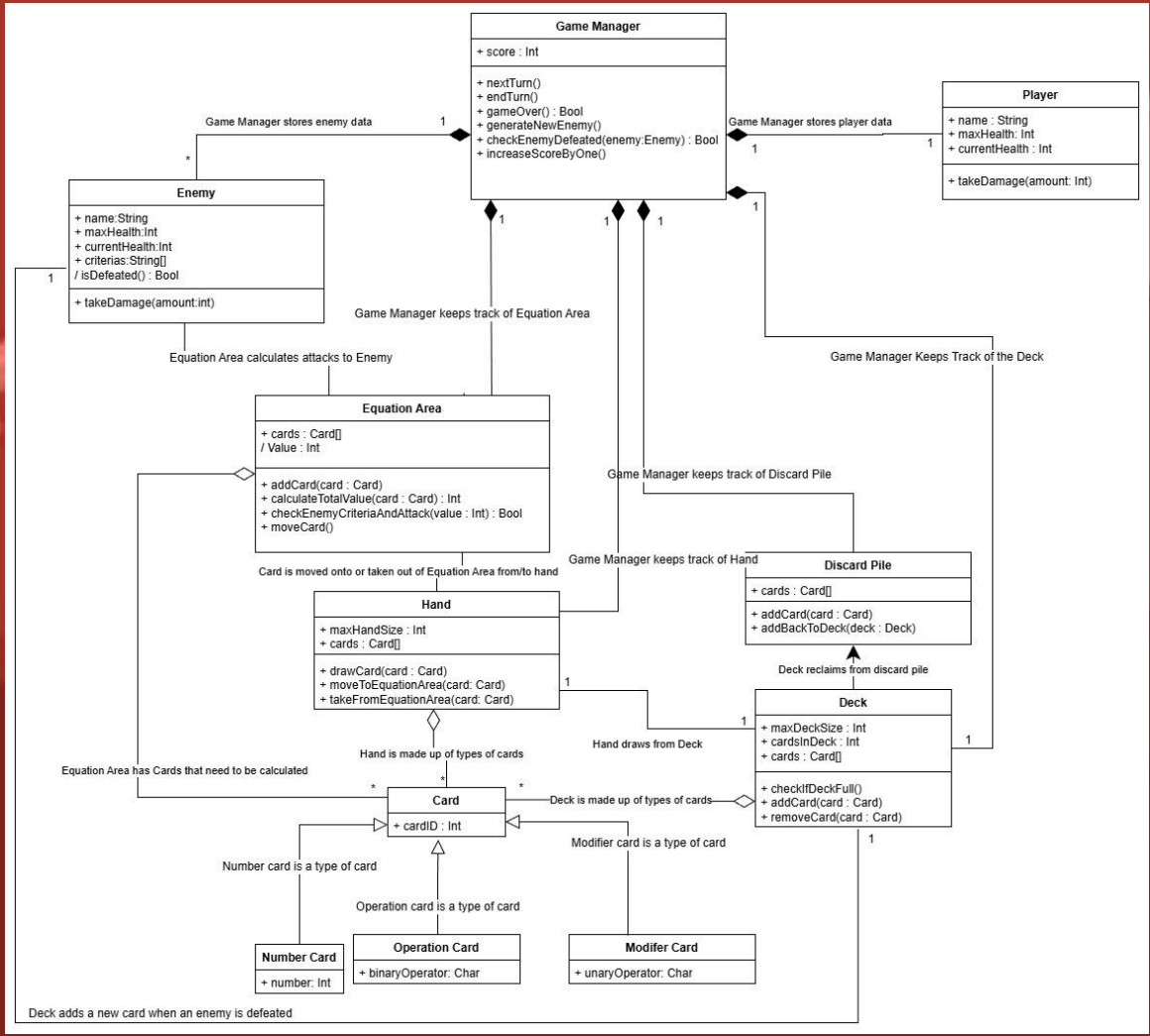
– Age appropriate & accessible.

– Educational on a 4th grade level.

– Team knowledge of tools

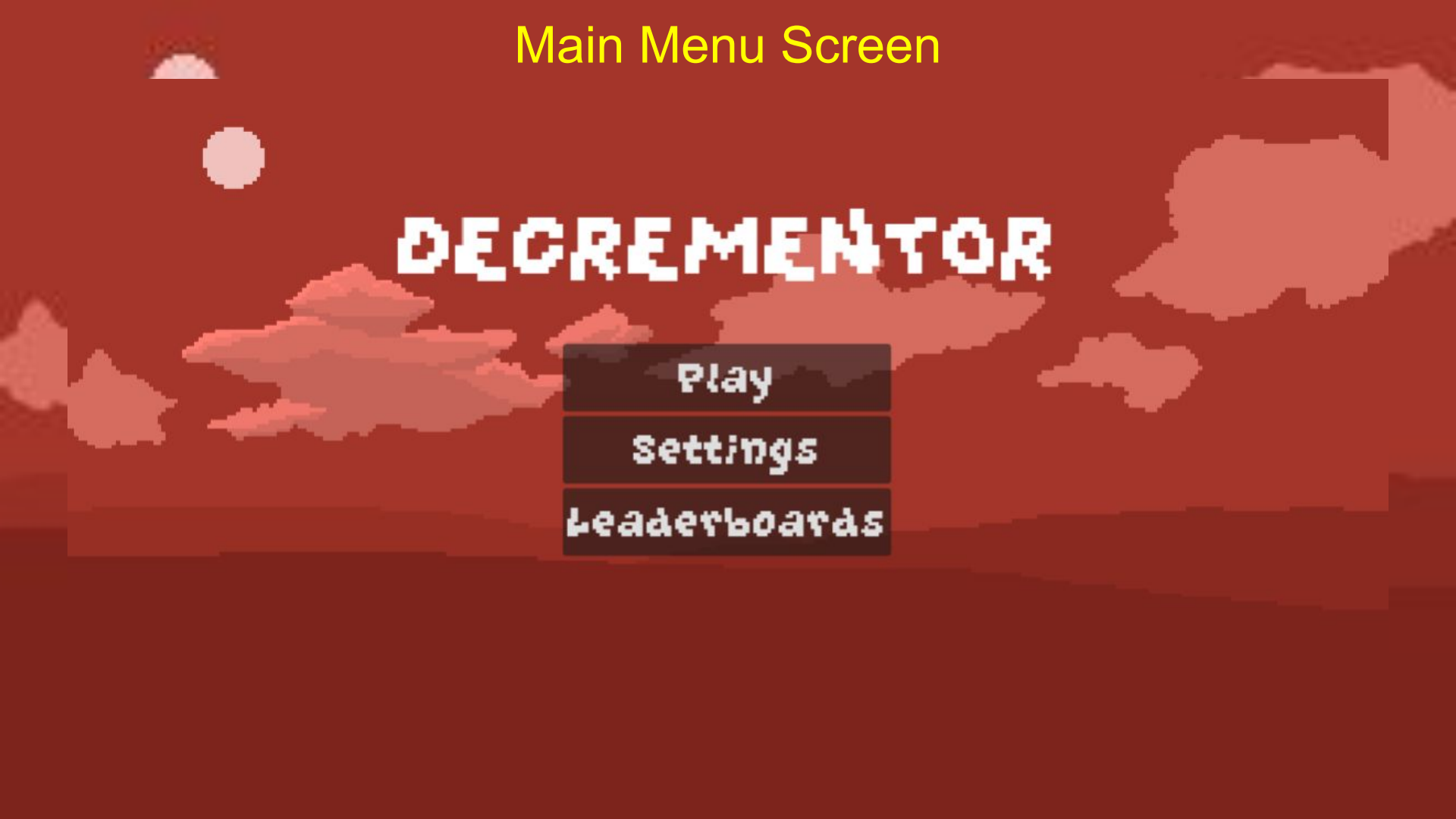
Class Diagram

- Object oriented design
- Composition over inheritance



Demonstration

Main Menu Screen



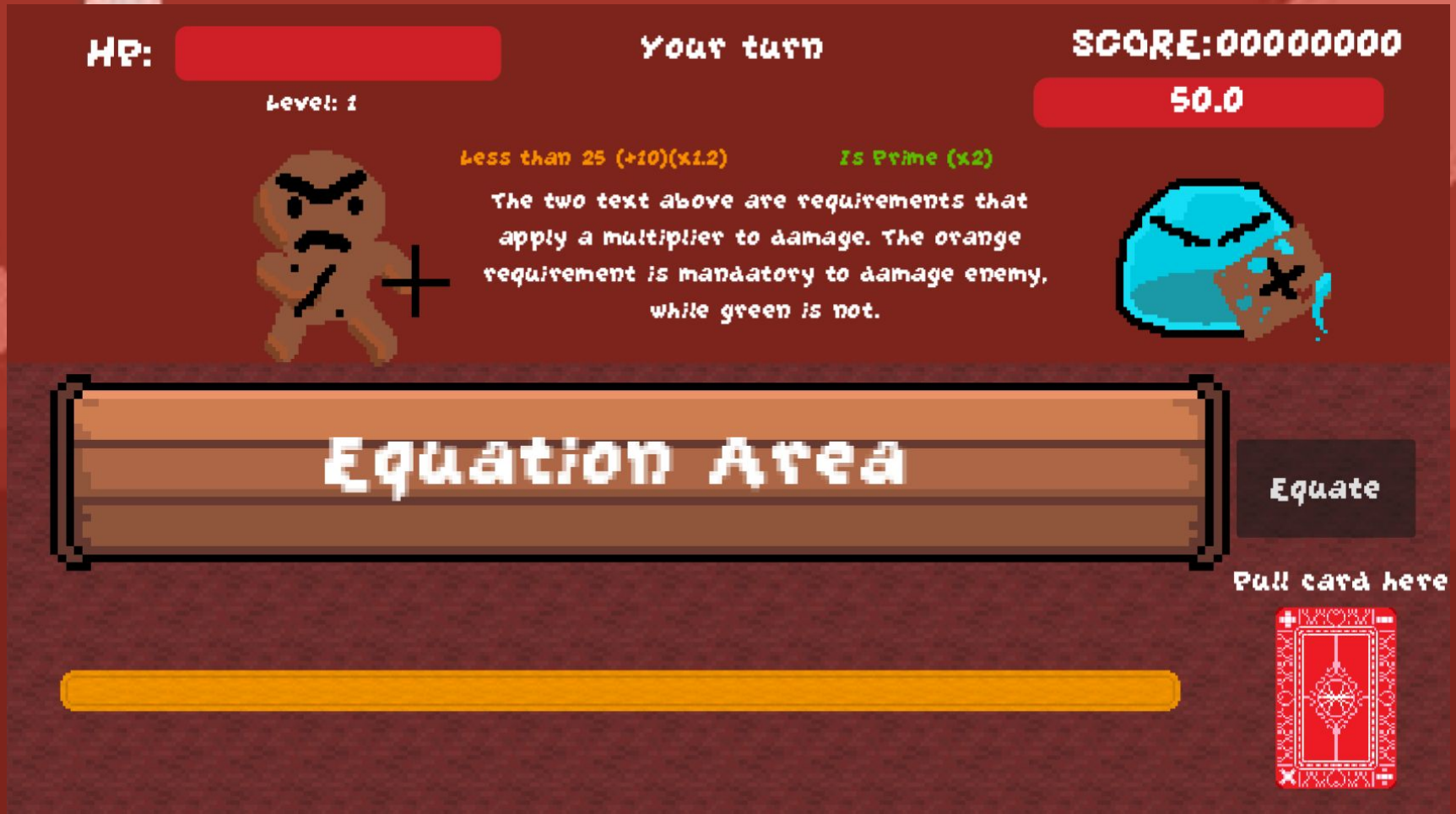
Settings Screen

Leaderboard Screen

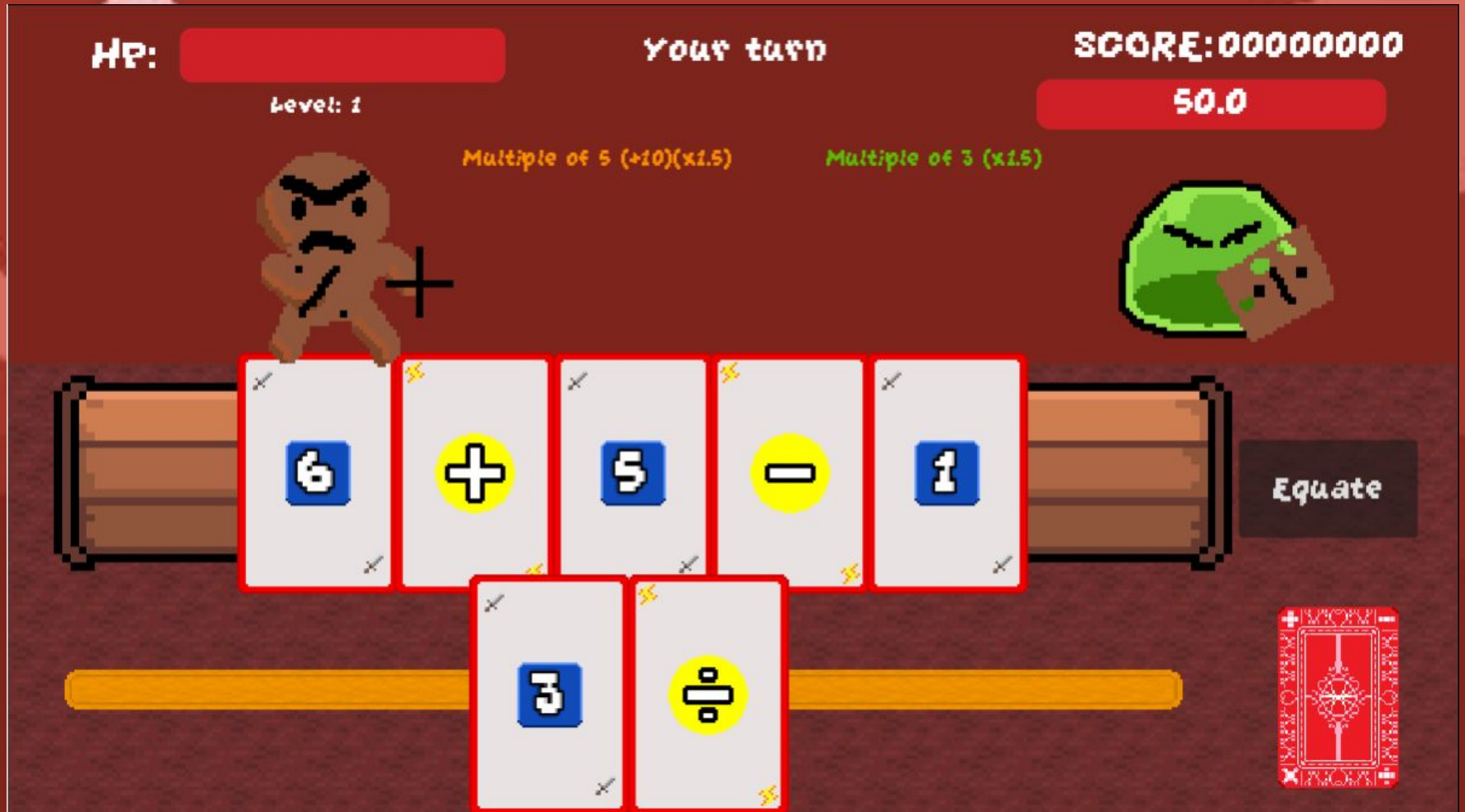
Position	Name	Score
1	Senny	18000.0
2	Guy Below Me Kinda Sucks	15000.0
3	Nicholas Johnson	15000.0
4	Bill	12000.0
5	Nicholas Johnson 2	12000.0
6	Abhiram Garre	11000.0

Back

Game Play Screen

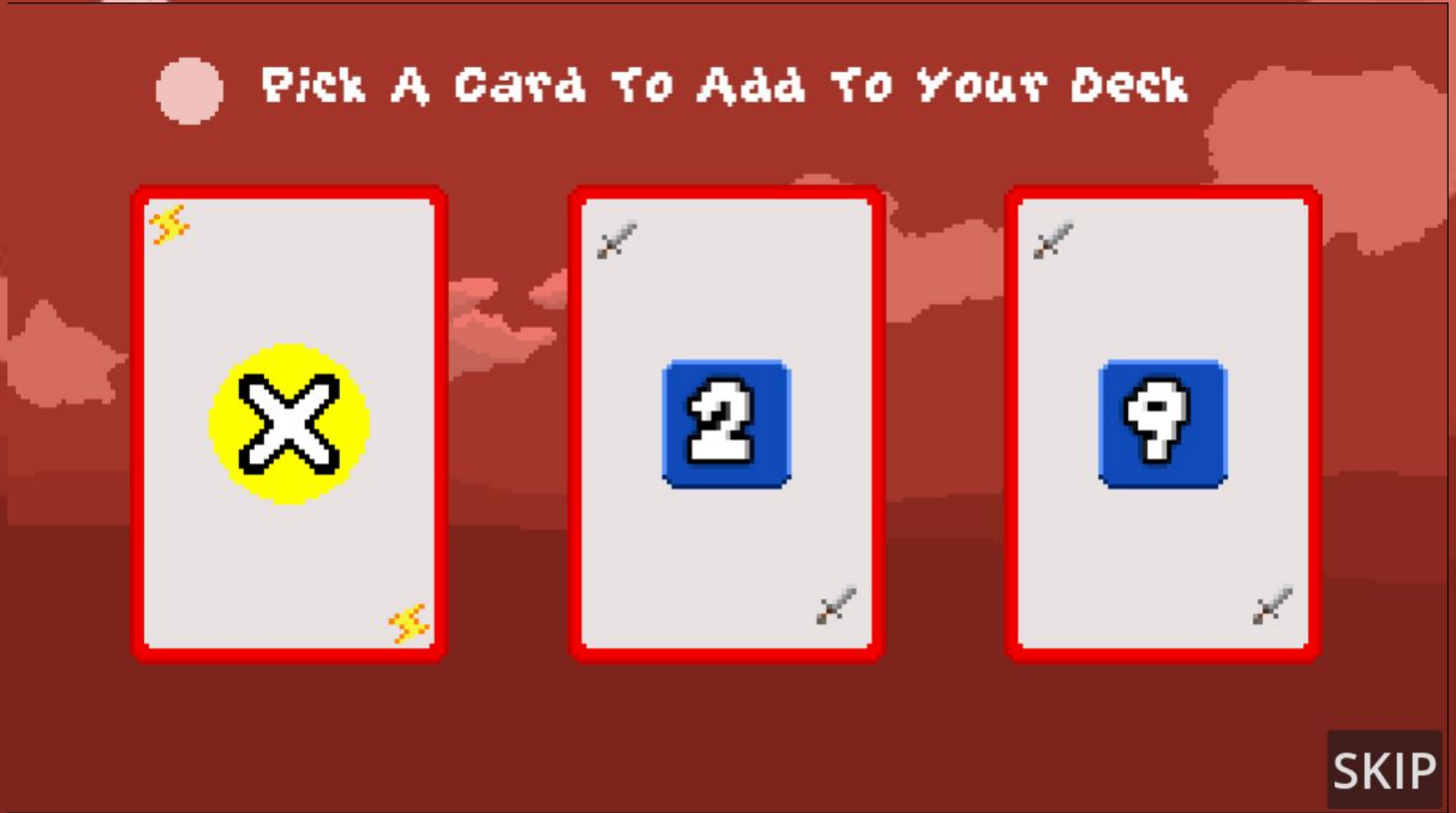


Game Play Screen

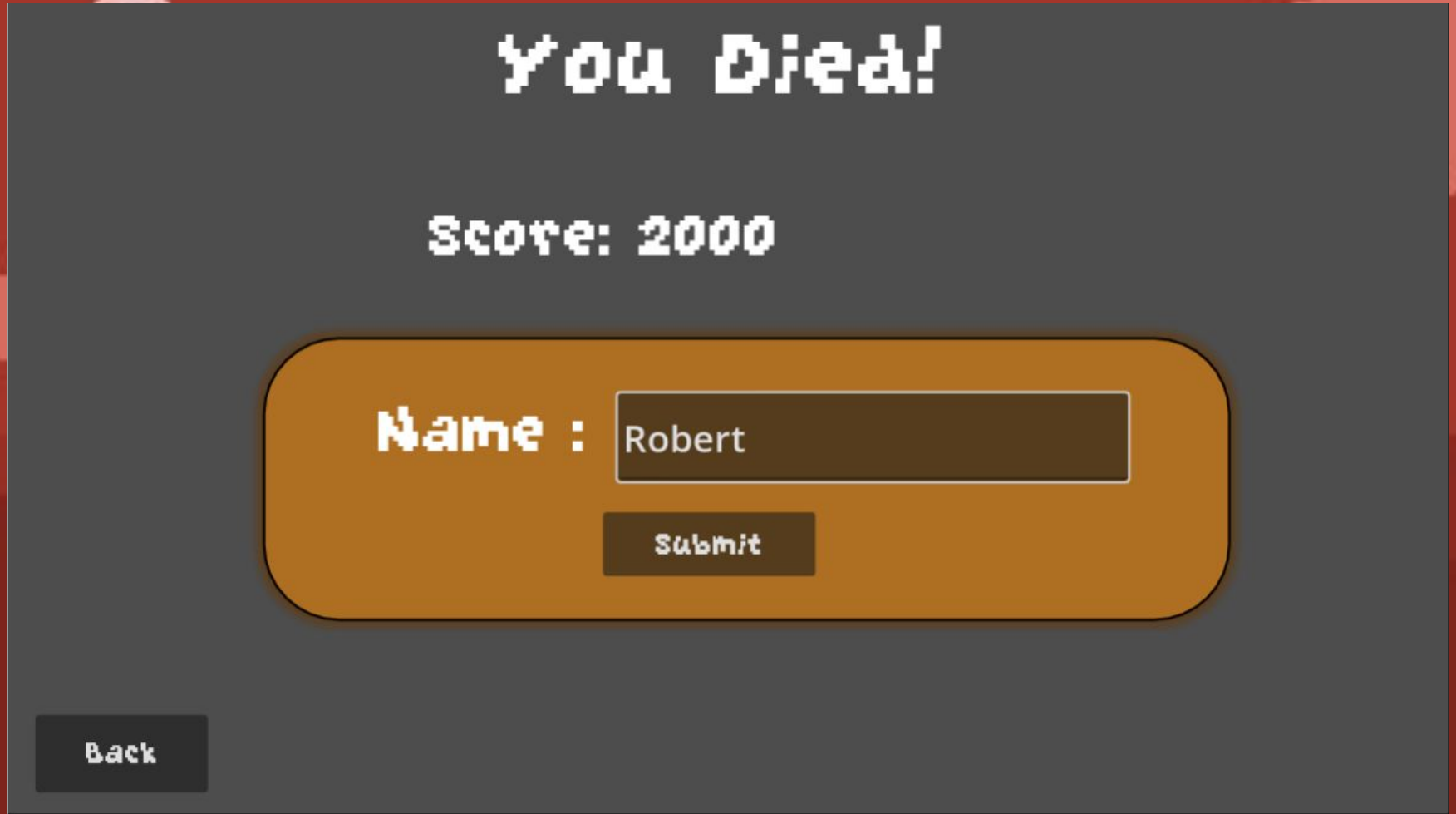


Pause Menu Screen

Adding Cards Screen



Losing Screen



Live Demo

Improvements + Future Features

- More Requirements
- Requirement Balancing
- More Variety In Levels
- Formal Tutorial Level
- Increase in Variety of Cards

Acknowledgements

We gratefully acknowledge and appreciate the participation of our Professor, Dr. James Daly from University of Massachusetts at Lowell

Questions?



DEGREMENTOR