

Overview of Leximon

Software Engineering COMP 4110

University of Massachusetts Lowell

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Team members:

Project Manager: Charlie Norton

Lead Developer: Samuel Stanley

Web Developer: Platon Supranovich

Game Developer: Christopher Nguyen

Game Developer: Evan Sykowski

Instructor: Dr. James Daly

Project Overview

- "Leximon" is a game that teaches 4th-5th graders about synonyms and antonyms
- Achieved with turn-based combat by choosing the correct words as attacks
- Antonyms > Synonyms > No Relation
- Turn-based vocabulary combat reinforces memorization through immediate feedback & repetition

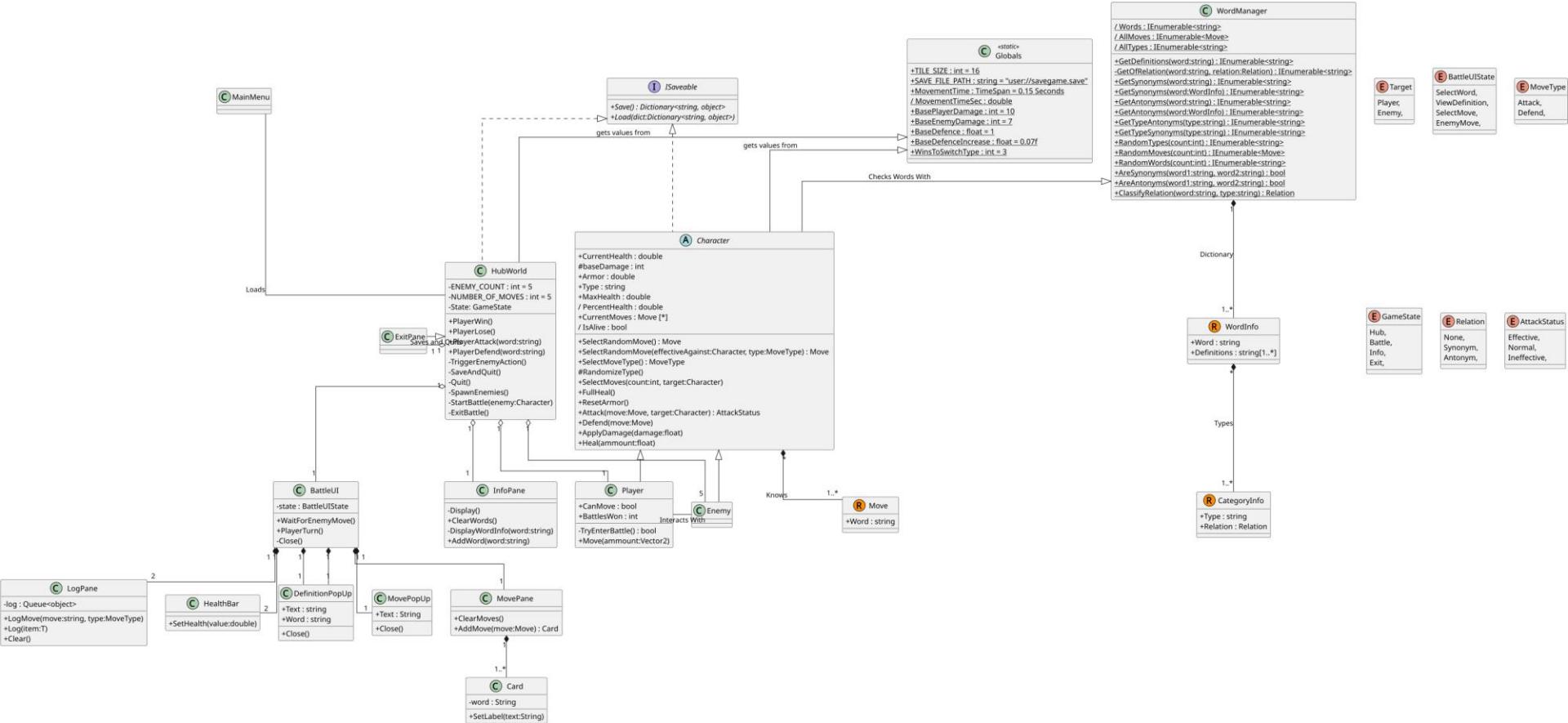
Overview of Features

- Player Movement
- Interaction with enemies
- Attack and defense with vocabulary
- Definitions of terms

Domain Research

- Researched Massachusetts Curriculum Framework for English language arts at a 5th grade level
- Applies vocabulary usage found at 5th grade
- Project Constraints
 - Godot 4.5.1: Node-based scenes system supports rapid prototyping
 - C#: Allows strong typing & scalability
 - .NET 8.0 or later

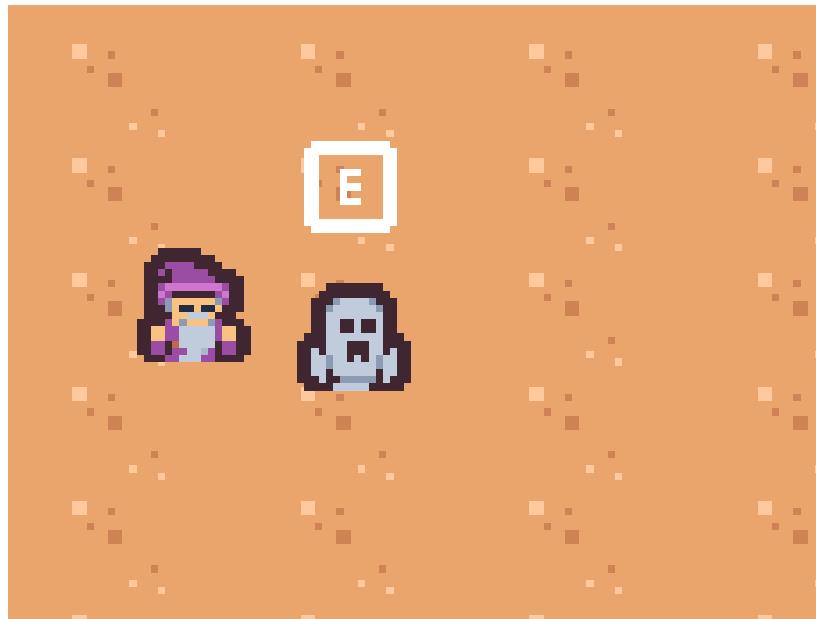
Leximon's Class Diagram



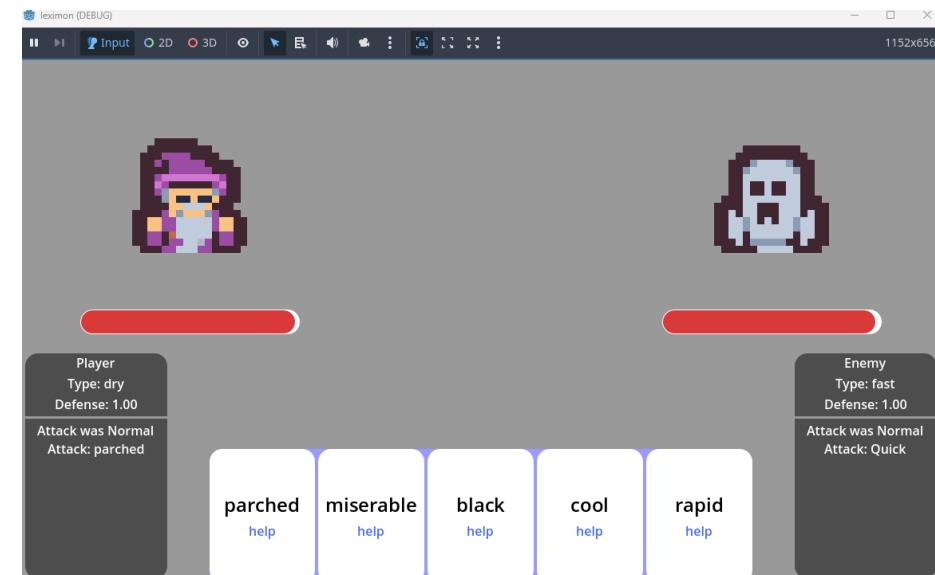
Player Moving Across the HubWorld



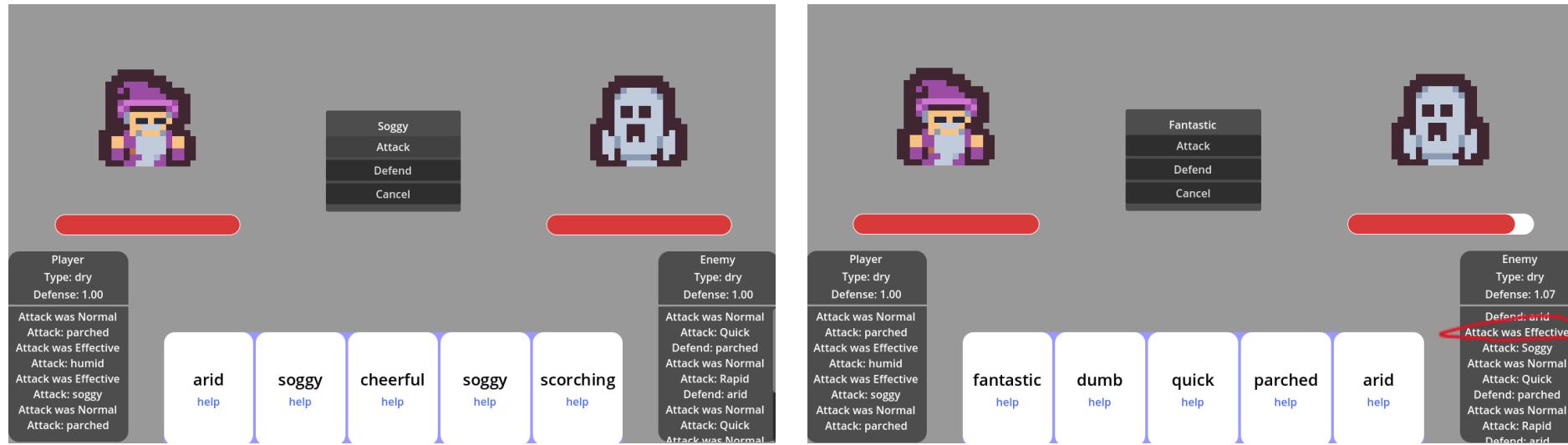
Interacting with enemy



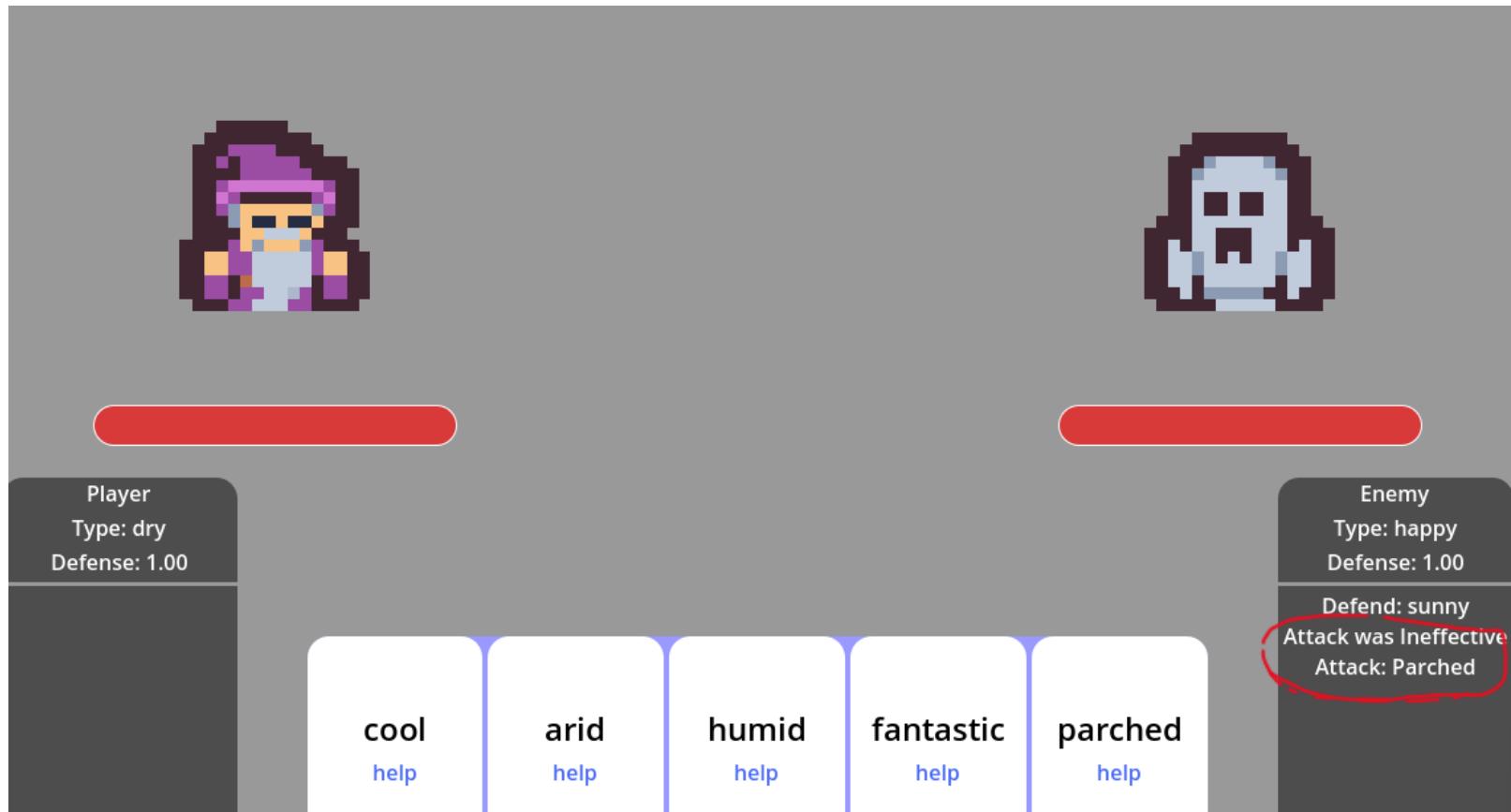
Attack using Synonym



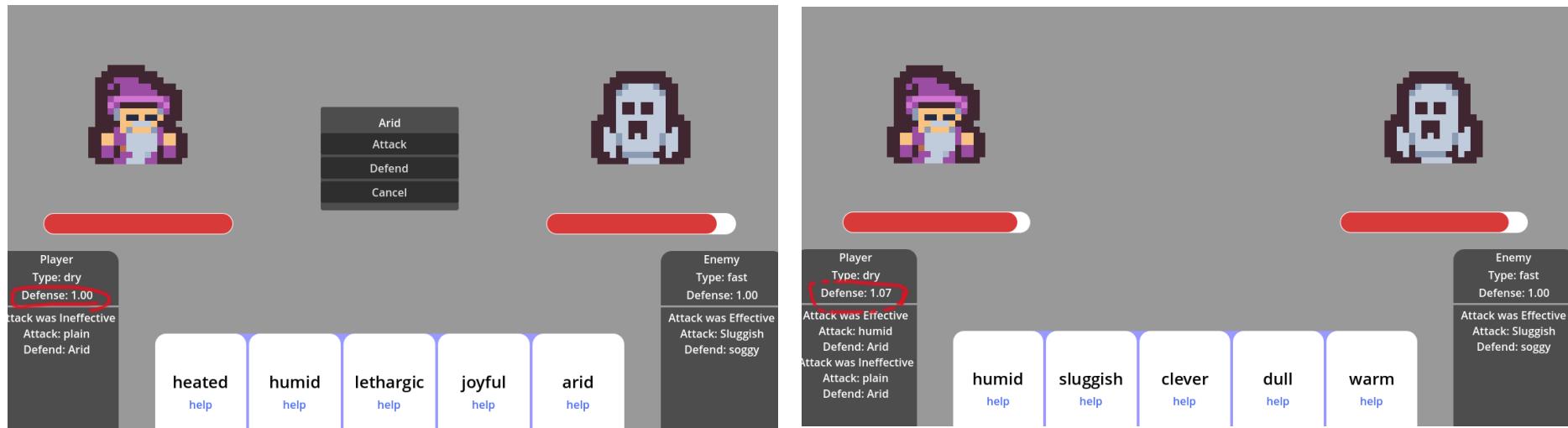
Attack using Antonym



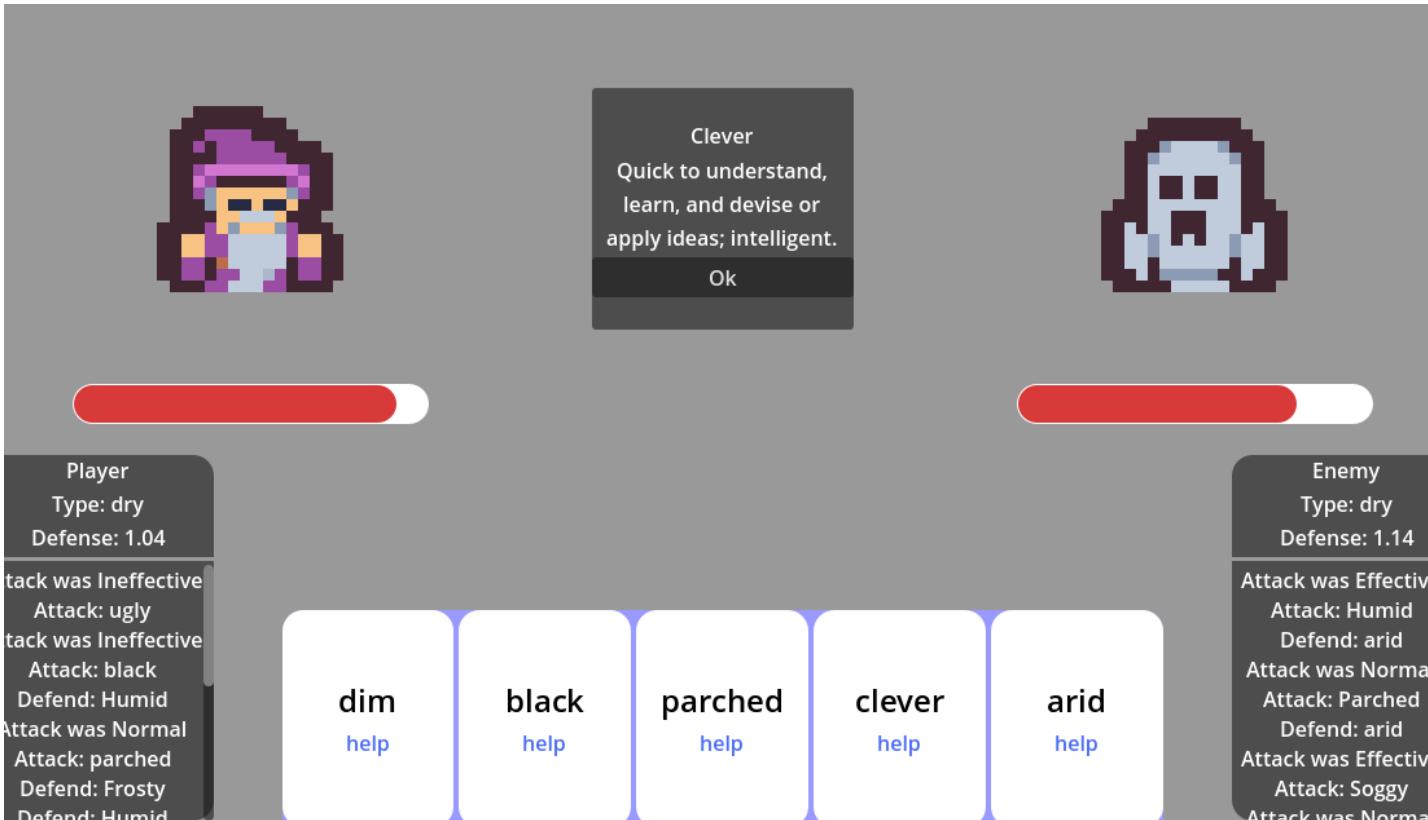
Attack using Unrelated Word



Defend using Synonym



Definition of Word



Inventory

| | | | |
|-------------------|------------|-----------|---|
| Current type: dry | | | 100/100 hp |
| cool | bright | black | Joyful |
| joyful | clever | frosty | Definitions: - Feeling or causing joy. |
| dim | unhappy | warm | Synonym Types: happy Antonym Types: sad |
| scorching | fantastic | dull | |
| mediocre | freezing | dumb | |
| sunny | cheerful | sullen |  |
| miserable | glad | heated | |
| frigid | arid | parched | |
| humid | soggy | quick | |
| rapid | sluggish | lethargic | |
| beautiful | attractive | plain | |
| ugly | | | |

Improvements

- Clear moves log for each new battle
- More intuitive control options
- Damage balancing
- Better Enemy AI

Future Features

- Several enemy tiers where the player must defeat regular enemies before confronting special ones.
- Earnable in game achievements
- Ability for player to level up
- More floors to fight on

Thanks For Listening

Any Questions?