RADIANT GREEN
ENT.

Design Document for:

The ultimate test of a warrior's might.

"Step into the BLADERENA!" ™

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Version # 1.00

Thursday, June 29, 2023

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Design History

The design history records the progress of the game that we are making in order to be able to backtrack whenever we face new problems with the recent version.

Version 1.10

Version 1.10 includes some tuning and tweaking that I did after making my initial pass at the design. Here is what I changed.

1. The game runs on PC
2. Designing level and game mechanics.

Version 1.20

1. New UI designs
2. New Character sprites
3. New Main menu
4. Appendices

Version 1.50

1. Created Map
2. Added Traps
3. Added Traps functionality

Version 1.80

1. Added player character
2. Added enemy types
3. Added Main menu
4. Added Pause menu

Version 2.00

1. Added Player Controls
2. Added enemy functionality

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Game Overview

Philosophy

Philosophical point #1

The game would like to present an environment where the player can adapt and grow, learning enemy patterns, but also keeping the game challenging by introducing levels and more difficult enemy patterns

Philosophical point #2

The game will run on PC

Philosophical point #3

Our goal is to present a dynamic experience where a player can hopefully have a great time

Common Questions

What is the game?

The game is an arena/coliseum style dungeon crawler. It presents 2D pixel art designs and a high fantasy theme.

Why create this game?

We want to create a 2D experience that will be enjoyable and a bit more different than the usual 2D dungeon crawlers.

Where does the game take place?

Inside a high-fantasy themed dungeon

What do I control?

The player controls Cpl. Quandale a soldier on leave, suddenly finds himself in a world where he has to fight for his life.

How many characters do I control?

There is only one, and they are the One

What is the main focus?

It focuses on player control of the character and pattern recognition.

What's different?

We focus on making the game compact, making it much simpler and easier to understand

and enjoy it.

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Feature Set

General Features

Arena style survival
2D graphics
Pixel art

Gameplay

Survival
Dungeon Crawler
2D Top-Down

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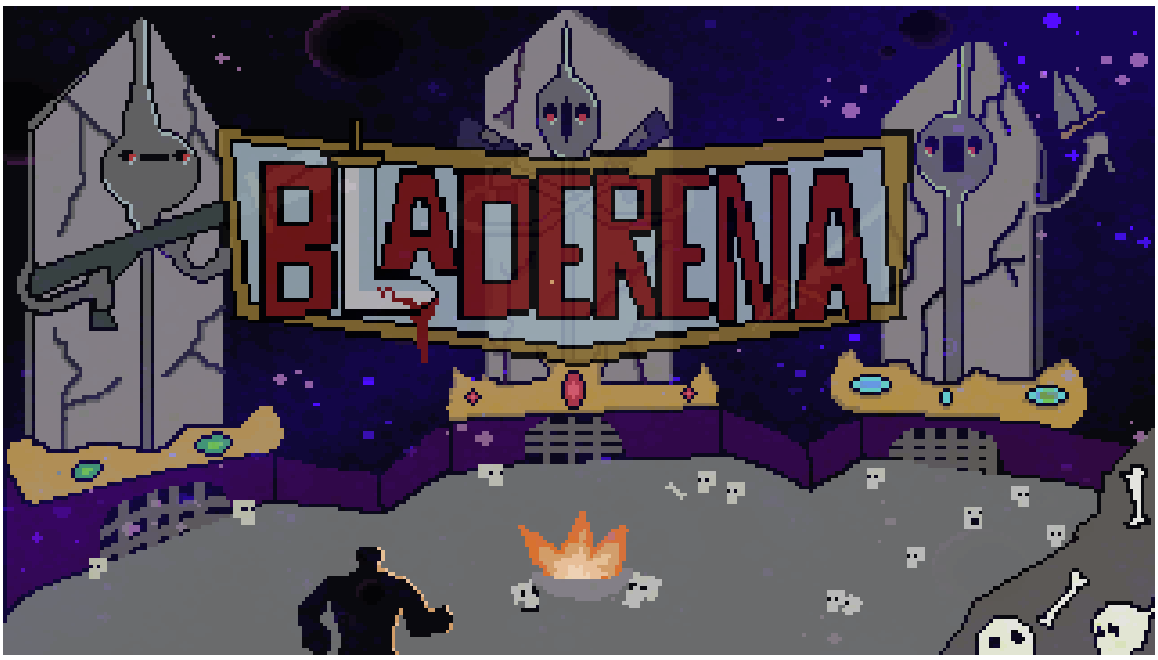
The Game World

Overview

The Bladerena is a place in the center of the multiverse where the Sword Saints test warriors of many worlds, where they force them to fight many creatures that many know very little about. Many of the transported warriors failed and died. Nobody knows why the Sword Saints do it, be it for their entertainment or something greater is knowledge only they know.



The Saints' Theatre

- The main stage of the action, the titular Bladerena, also known as The Saints' Theatre where the warriors from other worlds attempt their greatest in the face of the Sword Saints .

World Feature #2

- Fantasy creatures come alive, but they are all actively trying to eliminate you from your physical body.

The Physical World

Overview

12th Century style aesthetics. Dungeon style setting with light blue tones.

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Key Locations

The Bladerena, the main area where most of the fighting happens

Travel

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Rendering System

Overview

The game will use the 2D rendering capabilities of the Unity Engine.

2D/3D Rendering

2D rendering with Unity Engine. Unity Engine is a versatile open source platform where most aspiring developers and actual developers themselves develop games.

Camera

Overview

Using a single camera

Camera Detail #1

The Camera will follow the player character exclusively.

Game Engine

Overview

Unity Game Engine is a cross-platform game engine, primarily used in developing video games.

Game Engine Detail #1

The game engine will ensure the game can and will run on the desired platform.

Collision Detection

Collision will happen using colliders in the Unity Engine

Lighting Models

Overview

Lighting will be manual due to the 2-dimensional nature of the game

Lighting Model Detail #1

We are manually designing the sprite to have a lighting effect due to the 2D nature of the game.

Lighting Model Detail #2

The lighting of the game itself is static, that's why it will be done manually.

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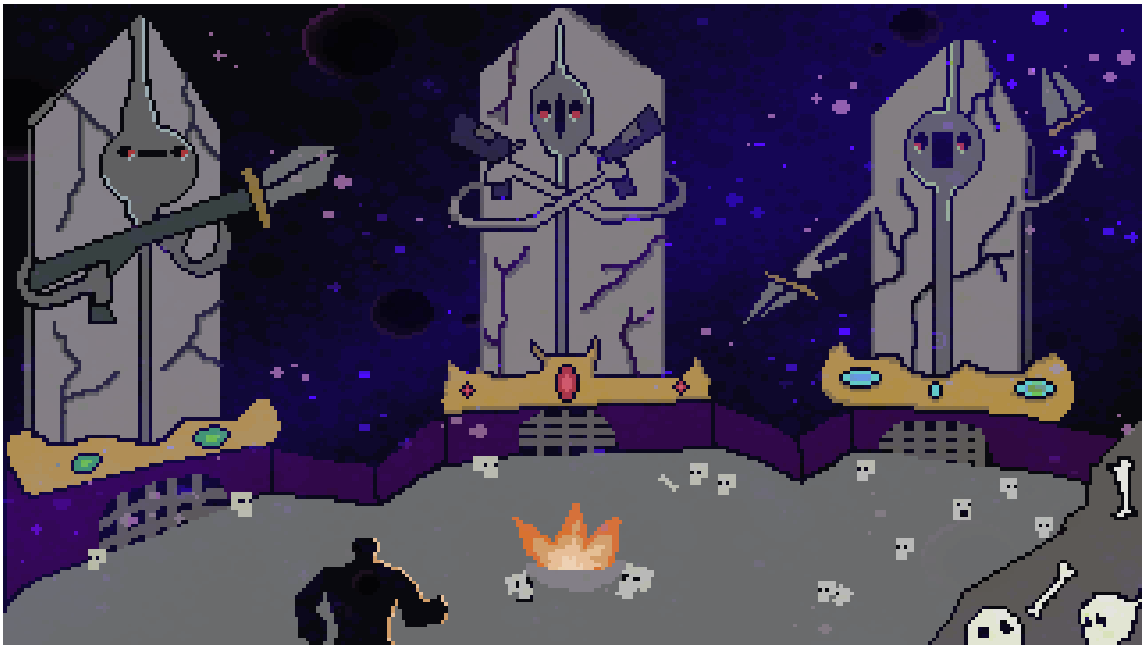
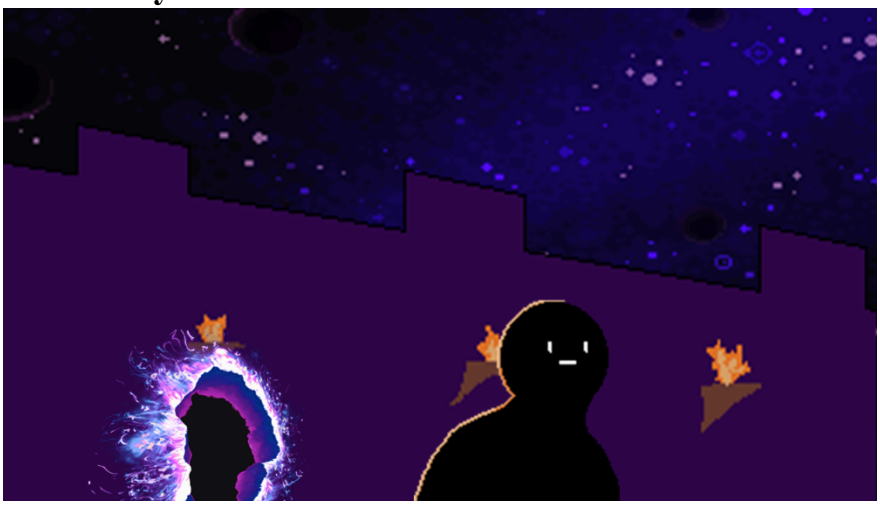
The World Layout

Overview

There is no actual world, it's all in the lore, the main focus of the gameplay is one singular map, it's the only relevant place in the "world" being the titular area where the game takes place.



World Layout Detail #1



World Layout Detail #2

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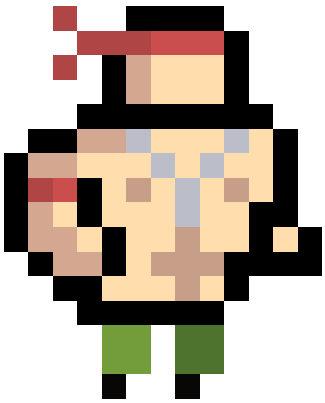
Game Characters

Overview

Our characters or npcs/enemies are designed within the High Fantasy genre in mind, albeit a bit comedic in the premise, it helped us design characters that will make the game feel lived in.

Main Character: Cpl. Quandale Dingle



Creating a Character

We took a simple approach, with the story of a military soldier being transported to another world. Our main character's design is based on the idea that he is a soldier, and the otherworld creatures are designed based on prevalent high fantasy tropes.

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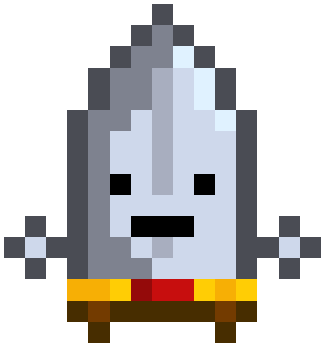
Enemies and Monsters

In this world there are goblins, sentient swords, and sentient fireballs.

The Goblins are the main enemy force, they're cannon fodder, they act as the first enemy the player will encounter in their fight in the Bladerena.

The Sentient Swords are a species made by the Sword Saints' magic. They can stand and move on their own. They can contain magical energy and then release it as a form of magic attack, and they can also move themselves in a way that a sword would cut or stab someone if they get too close.



The Sentient Fireballs are beings created for a single purpose, to burn. These fireballs are the most suicidal beings in the world of Bladerena, they will try to hone in on their enemies and try to burn them in a fire pit that they make once they propel themselves and die.

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User Interface

Overview

Here is the main menu UI of the Game

User Interface Detail #1

The main menu contains the play, the options, and the quit buttons. Play starts the game, options open the options, and quit exits the game.

User Interface Detail #2

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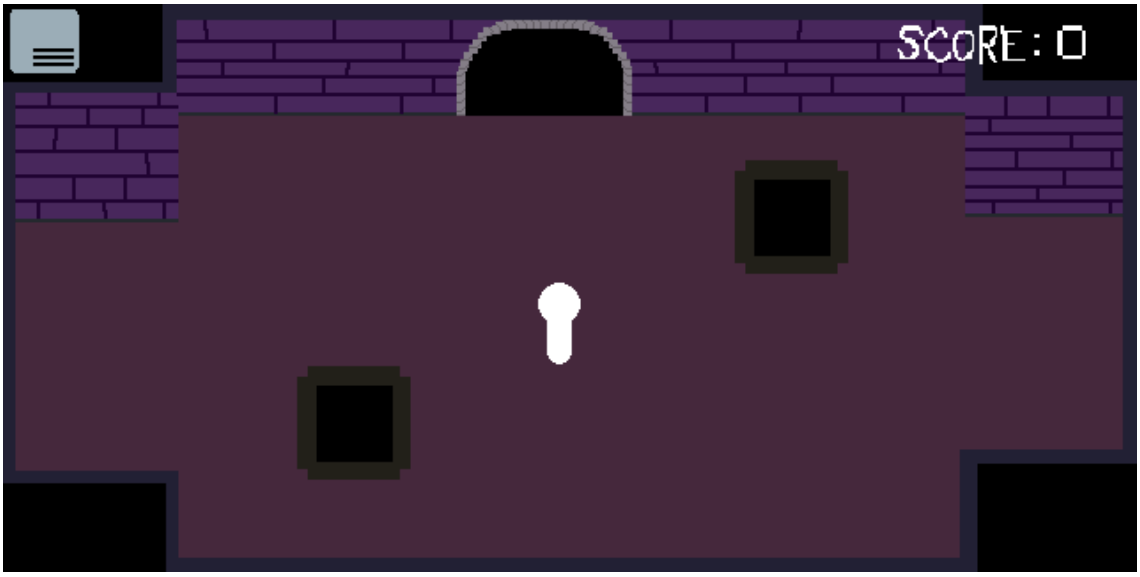

This is the main UI look, on the upper right is the score tracker and on the upper left is the pause menu which can be opened via ESC key or by clicking it.

This is the pause UI, it will allow the player to restart the game, to open the options or to quit the game.

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This is the Game Over UI, almost the same with the pause menu in regards to options, but this signifies that the player has lost and must now either play again or quit.

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Weapons

Overview

There is one main weapon, the Swordknife.

Weapons Details #1

The Sword allows the player to fight the enemy close range and deflect projectiles

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Musical Scores and Sound Effects

Overview

We will use 8-bit audio for the soundtrack to give the game a retro-arcade presence. We will use open source music made by BLUEJAY STUDIO and KARA SQUARE. Sound Effects have been source from freesound.org

Sound Design

We would employ standard sounds like sword clashing and fire burning, no voice acting will be employed.

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Single-Player Game

Overview

The single player experience is an arcade time burner game, where it focuses on the player getting a high score.

Single Player Game Detail #1

It focuses on a fast-paced dungeon crawler style gameplay.

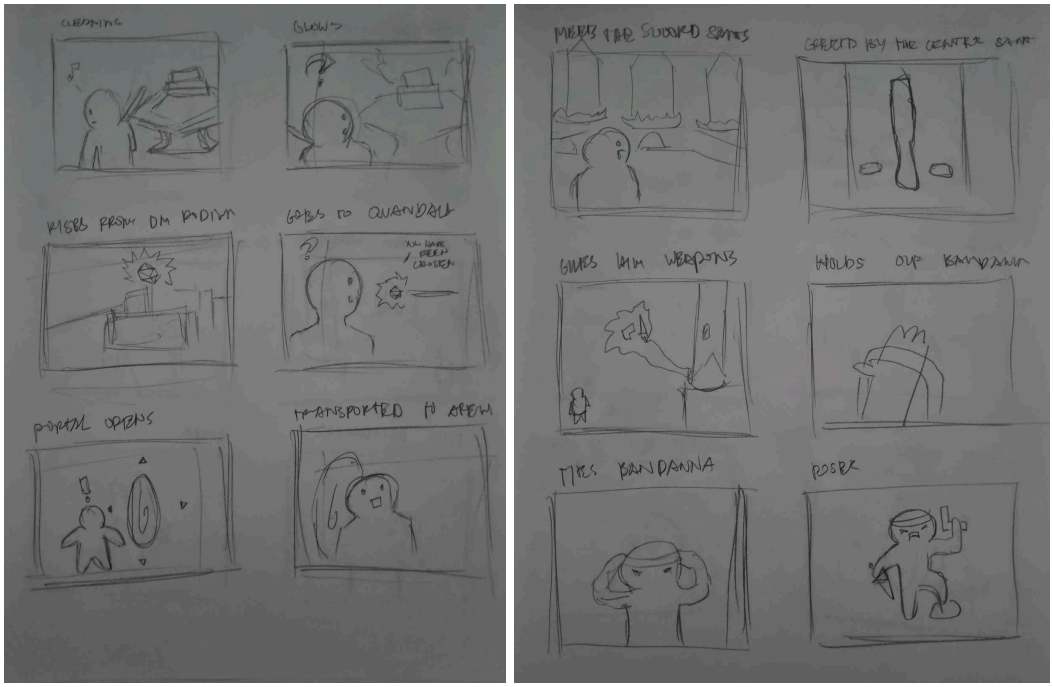
Single Player Game Detail #2

The player is constantly pelted with enemies every moment of the game, its an endless arcade.

Story

Corporal Quandale Dingle got transported to an alternate universe one night while playing his favorite game: Dungeons and Swords. He hoped to have a quiet holiday while on leave, but things turned out to be quiet after all. Quandale was transported to the Bladerena where the sword saints forced him to fight in all eternity.

Detailed Storyboard



Hours of Gameplay

Hours of gameplay depends on how long the player would play the game.

Victory Conditions

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Get the highest score.

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Character Rendering

Overview

Characters are rendered using 2D sprites. Using unity sprite renderer.

Character Rendering Detail #1

Aseprite is our main sprite creator/editor software used.

Character Rendering Detail #2

Each character uses 16x16 pixels in size.

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Extra Miscellaneous Stuff

Overview

We are currently exploring ideas.

Ideas…

Dynamic level – a stage that constantly changes once the player reaches a certain score.

Multi-level – a door opens to another level when the player reaches a certain score.

Test of strength challenges.

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“XYZ Appendix”

A list of all the important points in the document…

“Objects Appendix”

“User Interface Appendix”

- Main Menu UI
- Gameplay UI
- Pause Menu UI
- Game Over UI

“Networking Appendix”

“Character Rendering and Animation Appendix”

- Aseprite as main sprite editor software
- Unity Engine for animation and development
- 2D sprites as main Character Rendering Base
- 16 x 16 pixels all entities and background objects

“Story Appendix”

Corporal Quandale Dingle is a simple army soldier currently on leave. What better way to unwind than playing his favourite game, Dungeons, and Sword, together with his long-time friends. But one certain night after finishing a session, as he was cleaning up, he noticed a figurine, a sword holding a gun beside a 24-sided die. He picked up the figure and inspected it. As he did, he noticed the die started glowing, and before he could react, it became a portal and swallowed him. Now transported to the world he only once imagined, he is pitted into the Bladerena, overseen by giant swords as if looking at a toy. Suddenly, hostile beings like goblins and sentient swords surround him. With his pistol and a dead sentient sword he found, he must fight his way and survive the enemies before him.