**Design Document for:**

# Fragments of the Damned

**The Ultimate mobile experience**

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Version # 1.00

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# Design History

## Version 1.10

Added more GUI elements and sound effects.

Characters attack names made shorter to fit on the buttons and still be visible on a phone.

## Version 1.20

Added animations for players and bosses, as well as more music, both sound effects and background music.

Updated the story, adding in an extra story scene before the final boss.

# Game Overview

## Philosophy

### Philosophical point #1

In this game, we hope to achieve to look and authentic feel of a retro game but as well adding a unique and modern take on an old battle system.

### Philosophical point #2

We hope to have a cross platform game. We hope to develop a game that can run on windows devices as well as on android devices.

### Philosophical point #3

We hope to have a game that will have a number of reasons to be able to replay that game, we hope to have multiple ending but as well as that we hope to have a score system implemented into that game that will allow for everyone who plays the game on the device to be able to compare their scores to other players playing the game.

## Common Questions

### What is the game?

Fragments of the Damned is a game developed around the theme of racing. In this game, you will be racing against time. Fragments of the Damned is a turn based battle system where the player must defeat the three bosses within the time given, the player must manage their health and have to manage the time left, the player will have a variety of different attacks from three different types of attacks being Attack, Magic and Special, each type will take a different amount of time off of the given time, this will challenge the player to manage their time responsibly. This system will force the player to mix up their offence as they will have to take the time remaining into contention.

### Why create this game?

With the release of the mini Nintendo Entertainment System (NES) releasing to huge sales, this shows there is still a real market for retro games, our game is a real throwback to old battle systems used in classic role playing games (RPG’s) such as Chrono Trigger and Final Fantasy, using this initial idea we wanted to give this battle system out own take with a unique and individual look.

### Where does the game take place?

The game takes place in a fantasy kingdom named Ashbridge, the player will have to fight the monsters looking destroy the world in this area. The game can be defined as a medieval [science fiction](https://en.wikipedia.org/wiki/Science_fiction) milieu.

### What do I control?

In this game you will have three players that you will be able to choose from, the three player have a variety of different

### How many characters do I control?

You control one character at a time. You will be able to choose from 3 different characters’. Each character will have a variety of abilities and different stats such as health, strength, speed and defense.

### What is the main focus?

The main focus of this game is battle system that will have the player have to manage their time effectively as so they will be able to beat the boss before the boss will have gained enough power to destroy the world.

### What’s different?

This game had a unique way of telling the story through the use of comic panels as well as having a real throw back of a battle system.

# Feature Set

## General Features

Addictive Battle System

Multiple Endings

Choose up to three different characters

2D graphics

A variety of animated attacks

## Gameplay

Fragments of the Damned is a game developed around the theme of racing. In this game you will be racing against time. Fragments of the Damned is a turn based battle system where the player must defeat the three bosses within the time given, the player will have to manage their health and have to manage the time left, the player will have a variety of different attacks from three different types of attacks being Attack, Magic and Special, each type will take a different amount of time off of the given time, this will challenge the player to manage their time responsibly. This system will force the player to mix up their offence as they will have to take the time remaining into contention.

The player will also be able to bring back their health with magic but that will come at the cost of time. The enemies you will have to face in this game will have a number of attacks decided through the A.I implemented by checking how much health the enemy has left.

The player will face one enemy at a time and once an enemy is defeated the next battle will begin.

At the end of the game the player will be presented with a score and the player will be able to see if they have set a new top score.

# The Game World

## Overview

The game takes place in a fantasy kingdom named Ashbridge. The player will have to fight the monsters looking destroy the world in this area. The game can be defined as a medieval [science fiction](https://en.wikipedia.org/wiki/Science_fiction) milieu.

## World Feature #1

This game’s world includes the general population of which you live in. Outside the kingdom there is the land of the demons. Of which you play as The Seraphs, a demon hunting motorcycle gang.

## World Feature #2

At “World’s End”, ultimate power lies dormant, untouched across the centuries. Locked away, many dark forces attempt to take its power for their own. The Seraphs, among other Demon Hunters keep them bay.

## The Physical World

### Overview

Describe an overview of the physical world. Then start talking about the components of the physical world below in each paragraph.

The following describes the key components of the physical world.

### Key Locations

There are two key locations that this story takes place in,

Ashbridge, the kingdom where all the humans are and then there is the land of the demons, this is where the antagonist and King of the Demons lives.

### Scale

The player characters are scaled to be smaller than the enemies in this game to make the height and strength of their enemies obvious to the player.

## Game Engine

### 

### Overview

Cocos2d-x is an [open source](https://en.wikipedia.org/wiki/Open_source) [software framework](https://en.wikipedia.org/wiki/Software_framework). It can be used to build games, [apps](https://en.wikipedia.org/wiki/Mobile_application_software) and other cross platform [GUI](https://en.wikipedia.org/wiki/Graphical_user_interface) based interactive programs. There are some independent editors in the cocos2d community, such as those contributing in the areas of [Sprite Sheet](https://en.wikipedia.org/wiki/Sprite_(computer_graphics)) editing, particle editing, font editing and Tile map editing as well as world editors including Sprite Builder and Coco Studio.

## Sprites and Scenes

All versions of Cocos2d work using the basic primitive known as a [sprite](https://en.wikipedia.org/wiki/Sprite_(computer_graphics)). A sprite can be thought of a simple 2D image, but can also be a container for other sprites. In Cocos2D, sprites are arranged together to form a scene, like a game level or a menu. Sprites can be manipulated in code based on events or actions or as part of animations. The sprites can be moved, rotated, scaled, have their image changed, etc.

## Animation

Cocos2D provides basic animation primitives that can work on sprites using a set of actions and timers. They can be chained and composed together to form more complex animations. Most Cocos2D implementations let you manipulate the size, scale, position, and other effects of the sprite. Some versions of Cocos2D let you also animate particle effects, image filtering effects via shaders (warp, ripple, etc.).

**The World Layout**

## Overview

The game’s world layout consists of two towns, one in Ashbridge where the first two battles take place. After protecting that town, The Seraphs enter the town World’s End to confront their enemies.

# Game Characters

## Overview

Over of what your characters are.

There are 5 characters, three of which are playable. The playable characters are Sam, Yuki and Akira. The antagonists are Leon and the Demon King.

## Playable Characters

Sam is the new leader of The Seraphs, after Leon’s betrayal. As Leon was his brother, he feels compelled to defeat him personally. Most of the people treat him like an outcast because they are worried that Sam will betray them too. Sam relies on his friends to give him the strength to keep going, despite the persecution.

Akira has a passion for justice, willing to die for what he believes in. While he doesn’t trust Sam, he joins him on his journey to ensure that Leon, and Sam if needs be, is slain. Impetuous and arrogant, he sees himself as untouchable.

Yuki believes in the power of friendship. It hurts her to see Akira’s distrust of Sam, and she tries to bring the two together. Though she enjoys the thrill of demon hunting, she misses the days of luxury she left behind, and is torn between staying with her new friends and returning to the stress-free life she once lived.

## Antagonists

Leon was once the leader of The Seraphs, but after years of fighting against demons, the darkness corrupted him and he now longs for more power, a mere shadow of his former self. Using his knowledge of World’s End, he wants to access the ultimate power that lies within.

The Demon King has twisted Leon into a demonic form with great power. However, the price for this transformation is the loss of Leon’s mind and free will. The Demon King joins Leon on his assault on World’s End in an attempt to take ultimate power for itself and rain down an unspeakable evil.

# User Interface

## Overview

Provide some sort of an overview to your interface and same as all the previous sections, break down the components of the UI below.

On the UI, there are buttons that form a multi-tiered list, a label for the player’s health, and a health bar for the boss. The sprites also display animations to show the user what is happening.

## Menu List

The first tier of buttons on the attack menu are “Attack”, “Magic”, and “Special”. The Attack button when pressed brings up a new menu with “Slash”, “Strike” and a back button. The Magic button when pressed brings up a new menu with the character’s magical affinity attack and “Cure”. “Strike” and a back button. Each character has two unique attacks and these appear when “Special” is chosen.

# Musical Scores and Sound Effects

The music that I have chosen to make for this game resembles early Role Playing Games (RPG’S) like Final Fantasy and Chrono Trigger. The scores that I have used are made to make the player feel what the characters feel and what they are going through in order to complete the game. Each musical score plays a different part in the game. Altogether there are five scores in this game.

The first composition is for the main menu. This score gives off a calm but suspenseful. This tells the player that there is something bigger to come as the music ascends from here. This score is also used in the character selection and the main story scene. The next score is used for the first two boss fights. This score sets the pace for the game. From the beginning of the song it gives off a sense of danger and gives the player a chill when they hear it as they know that something is coming their way. The next composition is the final boss fight. This score ramps up the suspense and brings in the action factor with choir like voices and drums to keep the player interested in the game.

The fourth score is for the game over scene. This piece of music gives of a sense of failure and dread as the player has failed to save their friend and stop the evil boss. The fifth and final score is the Win game scene music. This piece of music resembles the fanfares used in different RPG games throughout gamming history. It resembles games such as Final Fantasy and Pokémon when a battle has been won.

There are also different sound effects used in the game that I will explain the sound design section of this design document.

## Audio Format

I am using MP3 files. This reason is because the game engine that we are using supports MP3 files very well. MP3 files have a lossy compression type which creates a nice sound. This is utilized in the Cocos 2d-x game engine. All of the music that is in the game has been converted into MP3 file format using the tool called Audacity. The music is originally a Musical Instrument Digital File (MIDI) file as the tool I used to create the music was Fruit Loops studio. This program deals with MIDI files and MIDI instruments such as a keyboard and a guitar.

## Sound APIs

For this game we are going to be using the Simple Audio Engine inside Cocos 2D-X as it is easy and versatile. It has everything that we need to play effects that we need and play the background music for every scene. I find this Audio Engine particularly good as it can pause the music for dramatic effect and resume the music again in just two lines of code.

## Sound Design

In this section I am going to talk about the different music and sound effects that are in the game and how each one of them were made. I will also talk about the different instruments used and the different tools used to create the music and sound effects in the game.

The first piece of music that I am going to talk about is the Main Menu. This piece of music sets up the atmosphere for the whole game as it is the first piece of music that the player hears. It is a respective string quartet playing a simple chord progression and utilizing consonance, while using a canon drum beat to the string quartet. The drum beats in this composition signify a march into battle. This is used to get the player ready for what is about to happen in the game. My original idea for this piece of music was a louder more abrupt sound, but I settled on this as it gave a calm but kept a suspenseful introduction to the game. This was made through a tool called Fruit Loops. I used different plug-ins to achieve this piece of music. One of the plug-ins that I used was the Drum pad plug-in. This gave me a plethora of different drum and cymbal types to choose from. I went with the Timpani drums as they gave the best effect of a battle march in my opinion. Over all this piece of music sets the pace for the game and gives the user the sensation of a battle about to commence.

The next piece of music is the first boss battle music. This musical piece was created to give the player a sense of excitement and adrenaline as one of the game’s bosses had just entered the battlefield. The music is there to give the player a connection with the player. This piece of music was created with two different games in mind that did bosses very well and on a large scale too. These games are DOOM and Final Fantasy. I made the music by contrasting the two and creating a hybrid music track that gets the best musical parts from each game. I have used the allegro style of a string quartet that can often be heard in final fantasy and the distorted guitar from DOOM. The reason I blended these two game tracks together is because of a personal inspiration to myself. Two of my favorite Game composers are Nobuo Uematsu and Mick Gordon. Nobuo Uematsu is the composer of Final Fantasy games and Mick Gordon composed for games like DOOM, Killer Instinct and Wolfenstein.

I created this piece of music using two different instruments and Fruit Loops. I used a Yamaha PSR-E453 keyboard and Tangle wood Les Paul with a Boss M-t2 Metal Zone Effects Pedal. I used different techniques with each instrument. For the keyboard I made it sound like an organ. This gave a dramatic effect in the middle of the music. For the Guitar I used different picking styles like alternative picking and palm muting to get the deadening effect while the sound was going through the effects pedal. All of these sounds were recorded in fruit loops so they could be used as a MIDI signal. Once this was done I added in the allegro strings and the dramatic drums on top of this to create a harmonizing sound that told the player that there is danger ahead.

The next musical score is for the last boss battle. Like the last musical piece, I blended the two types of game music together to make a harmonizing piece of music. I used this piece of music here to really add the extra kick to the last boss as the game gets harder and the intensity of the game increases as the story progresses. Again like the last piece of music I used my Les Paul but this time I used a different effects pedal. I used a Boss MD-2 to get the “steel” sound from my guitar. This tied the entire sound together towards the ending of the track. The main emphasis of the music is the choir layer over all the instruments. This really gives dramatic effect to the player. This signifies that everything is starting to get harder and everything is going to turn up a notch.

The last two pieces of music are the loose scene music and the win scene music. These musical pieces are to signify that the player has either lost or won the game. The loose scene gives a sad defeated sound. This is the kind of music I think of when an army has lost a lot of men and the camera pans around the area showing the disaster that has ensured because of the war that had just happened. When the player fails the game, this is what they hear and feel. I think adding this effect to the game gives off a need to try again to beat the boss and get a high score the next time. The score was entirely made in fruit loops. I used a similar string quartet as the main menu scene but instead added andante to the strings. This means that the strings are played at a softer slower sound but keeping a constant rhythm. The Win game music is a different range of music than the loose scene. This piece of music shows the player that they have saved the day or completed an epic quest. I made this “fanfare” to resemble that of RPG games like Final Fantasy and Pokémon. With this music I can picture all the hero’s standing in a line waiting for the key to the city or their medals of honor, cue Chewbacca roar.

The other sound effects in this game were made with either house hold objects or natural sounds. The ice attack that is used in the game was a piece of plastic being crumpled up. The thunder heard is a recording that I recorded on a holiday in Poland. The sword and strike were made in Fruit Loops. The fire strike, blaze and incinerate moves were taken from Open game art. As were the cure and the avalanche sounds.

I had a lot of fun making these sounds and creating the immersive sounds that will help the player get more involved and more invested in the game. I like putting my passion of music into creating games.

**Digital Art Design:**

The direction I decided when designing and creating the art for this game was inspired by a number of retro Japanese role playing games such as Final Fantasy and Chrono Trigger. I wanted to give the game a retro look but also wanted take a look at making it have a modern feel and make it look different from previous iterations of these kinds of battle systems. When designing the world I wanted to make all the colour for the protagonists in the game to be very colorful and to have the antagonist’s to have a very dark color pallet as to create a clear distinction between the good guys and bad guys.

**Story Art Design**

When developing the story we had a lot of ideas for the story, we felt if we had just put in panels with text explaining the story the player would not be interested in the story and would not form any connection to any of the characters, as well by using panels players would have had no idea what each characters names or personalities. When looking for a solution to this I saw that comic books and manga are too form of ways to tell a story through the use of panels to allow the player to not only gain a better understanding of the story but as well add in a number of subtle plot points and have the story told in an original way as this is an uncommon way of telling a story in a mobile game.

**Animations**

When creating the animations for this game I had to make each frame separately and implemented, as I found it easier to implement the frames one by one as oppose to using a sprite sheet. Every character has a unique animation for every move in the game.

**Image Format**

PNG image files have many advantages over other image standards like GIF and JPEG, including, higher compression rates PNG uses better image compression technology than GIF, allowing for smaller files that download more quickly. Higher bit depths (more colours) PNG allows for 1, 2, 4, 8, 16, 24 and 32 bit images, smashing the 8-bit barrier. Multiple layers of transparency PNG images allow for full alpha channel transparency, which makes moving images from one background to another easy.

**Single-Player Game**

## Overview

The Single Player experience consists of three battles and three story scenes. Each character has a different ending and some aspects of the story are different depending on the character being played.

## Story

The story is shown as a black and white comic book. The story details a group of motorcycle riding Demon Hunters called The Seraphs. Their leader Leon, has been fighting demons his whole life, and every encounter has tainted him more and more. Now he has succumbed to the lust for power, and joined the demons he once despised.

His brother Sam was also a member of The Seraphs. Taking up his brother’s mantle, he sets off to defeat the brother he had once idolized. Joining him are the two other Seraphs, Yuki and Akira.

## Hours of Gameplay

Each successful playthrough of the game takes about three minutes. However, there is incentive for replaying the game in trying to get the highest possible score, and the different stories for each character help to keep the game fresh.

## Victory Conditions

How does the player win the single-player game?

The player defeats the single player campaign by defeating the three bosses and seeing their score displayed at the top of the leaderboard.

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