Game Design Document

Little Super Devil

"In a world invaded by angels, only one little devil can save humanity"

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Game Overview

Game Concept

Little Super Devil presents a world in which everyone goes to heaven, no matter what they do in life. The player is the Little Devil himself, the one and only ruler of hell because he's the only one that has ever escaped Heaven, which is nowhere close as good as everyone imagined. The world has been overrun by angels and they want to seize it entirely for themselves since there's no more room up there. Armed with a sword, the Little Devil has to make his way through enemies, overcome environmental challenges, solve puzzles and collect points. His goal is to drive the angels back and to make hell a destination for humans as well.

Genre

Little Super Devil is a third person platformer.

Business Model

The game will be available on both Steam and GOG for 4.99 € or the regional equivalent.

Target Audience

The game will appeal to fans of 3D person platformers, rewarding skilled players while also offering a great experience to the unskilled ones and is designed to be enjoyed by both younger and older audience.

Look and Feel

Little Super Devil delivers fluid platformer mechanics, and simplified combat, taking inspiration from some of the best titles ever released of the same genere, like Banjo Kazooie, Super Mario 64, Psychonauts and even some highly acclaimed, more recent titles like Super Mario Odyssey and A Hat in Time. We aim for a unique, lowpoly art style through which we hope to highlight our creativity and imagination along the different environments that will be available in the game.

Gameplay and Mechanics

Gameplay

Game Progression

The player will explore different levels but each next one will be locked until a number of required collectibles for unlocking it is reached. Although the main game will follow a linear path, there will be a few chances to explore some bonus zones, which will feature special challenges which upon completion will offer different rewards. The main progression through the game will be made as it follows:

LEVEL 1	→	LEVEL 2	→	LEVEL 3	→	LEVEL 4	→	LEVEL 5
		↓				↓		↓
		BONUS LEVEL 1				BONUS LEVEL 2		BONUS LEVEL 3
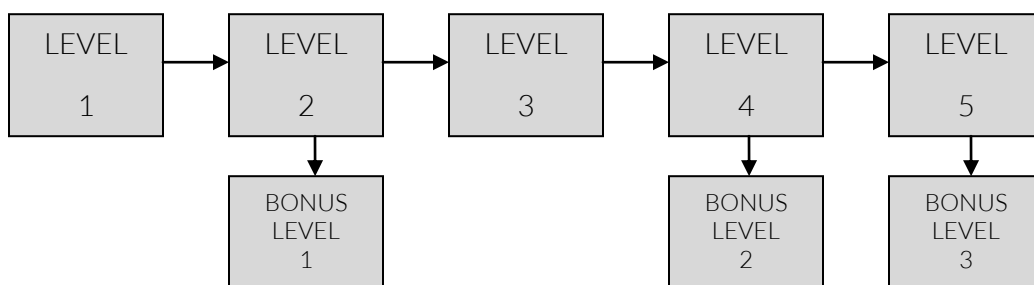
Mission/Challenge Structure

Each level will introduce at least one new game mechanic and it will be centered around fighting enemies, collecting coins and overcoming different hazards, in order to reach the end. Some levels will include small puzzle sequences, as well as some challenging, optional zones.
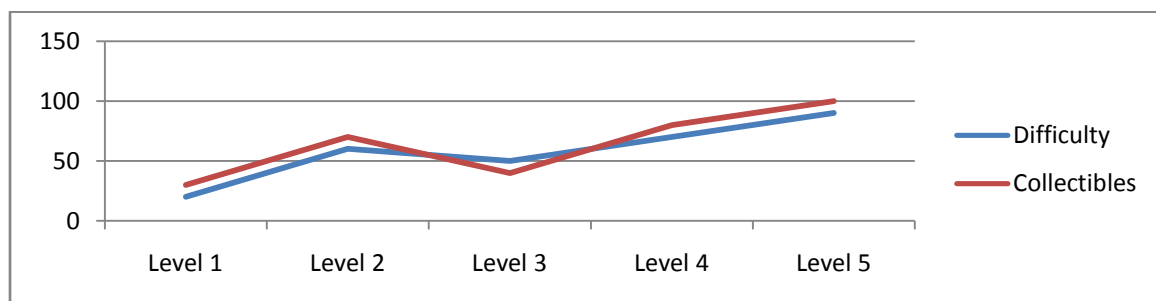
With the difficulty increase we also strive to increase the intensity of the game. The reason why level 2 and 4 are noticeably different than the 3rd one it's because level 3 has no secret or bonus level and the focus with it it's to introduce the very first boss of the game.

Puzzle Structure

The levels will be structured in such way that some coins will not be easy to obtain unless the player figures out how to get to them. By doing this, we'll be encouraging them to explore, and use objects placed around in the level in order to solve the environemental puzzles.
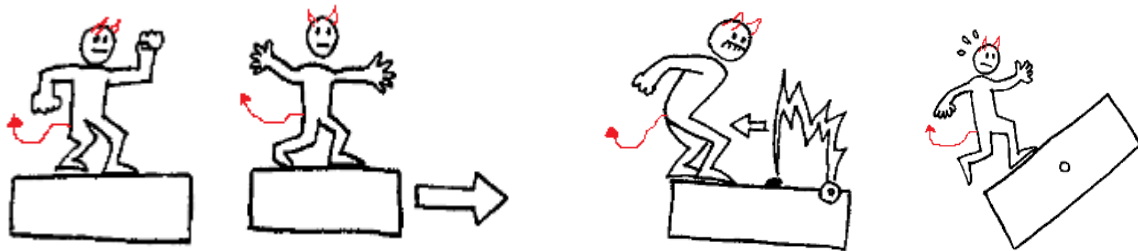

Objectives

As the Little Super Devil, you will have to make your way through the enemies, avoid hazards and collect coins in order to reach the end of the level and unlock the next one.

Play Flow

The players will begin from a specific point, and their main goal will be to collect the coins placed around the whole level. In order to do so, they will need to avoid deadly traps, fight enemies and in some cases even defeat some bosses. Every element of the game is carefully adjusted keep the player engaged.
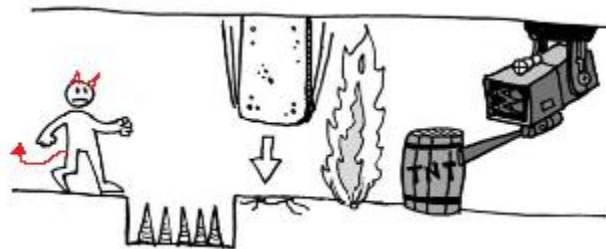
Winning Condition and Scoring System

In order to complete a level, the player will have to collect enough coins to unlock the next one. The scoring system will be also based upon this, since collecting all coins and other collectibles is not required to win or finish the game.

Mechanics

Physics

The physics in Little Super Devil will be exagerated most of the times, although we will not stray off too far away from how real life physics work when it comes to certain aspect, like the weight of some objects and the friction. This way we want to make sure that most of the mechanics which are based on physics are not counter-intuitive for the player.

Movement

The movement is fluid throughout the whole game, as well as the animations, and will stay consistent until the end, without adding, removing or changing any mechanics when it comes to it. The whole movement and the player input will be detailed further.

Players will use the standard ⬚Ⓦ ⒶⓈⒹ keys to move. The running animation is made using the same cycle of around 10 frames that are perfectly looped, ensuring a smooth movement animation without giving the impression of the player sliding across the level, or doing moonwalks. The whole movement is relative to the camera.

Players will have the ability to jump by pressing the [SPACEBAR] button. The player will jump in the direction of the movement key that he last pressed before initiating the jump. Pressing space once again while already in air will cause the player to make a second jump.

While being in air, the player will still be able to control the character, although not at the same speed as on ground.

The jumping animation will be split in 4 stages, as following:
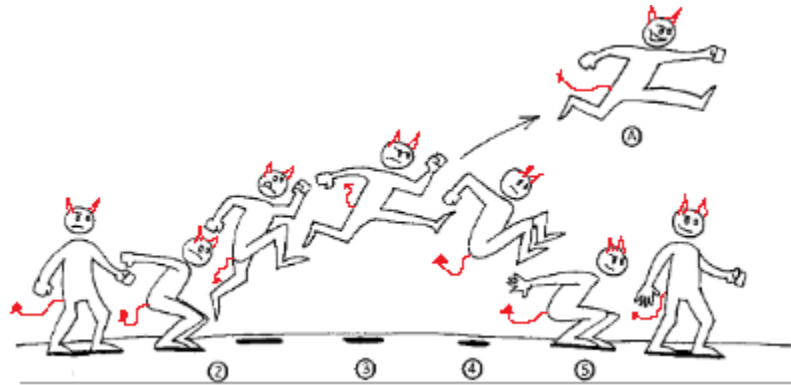
The first part is (2), because in case (1) which is not marked in the drawing, the player is at rest. Therefore, (2) has to happen as soon as the player pushes the space button! Since we do not have different jumping mechanics in Little Super Devil, but the double jump, only one simple press has to initiate the jump.

The time for which the jump button is down is directly proportional with the jump's height. Up to 0.3 seconds, the player will be able to jump lower, or higher, just by holding down the jump button more. The (2)nd step continues with the player rising, having a 'going up' animation, and ends with the (3)rd one, in which the player reaches the maximum height. Once this happens, the Little Super Devil starts falling down, initiating the (4)th animation. This one will have the character going down this time, a little bit faster than going up, but still being in air.

Between the beginning of the (2)nd animation, and the end of the (4)th one, the player can press the jump button again and cause a double jump, as seen in step (A). This will initiate all the steps once again, helping the character to reach double the height of a normal jump. The last step, the (5)th one shows the player landing on the ground, which has to happen as fast as possible, with no dashes, rolls or any other animation added that might take more than 10 frames. That's a design choice because fallingback on the ground must be accurate and feel solid since this is an important mechanic of Little Super Devil.
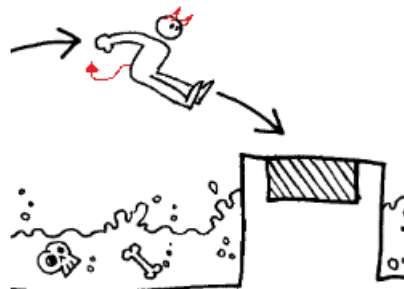
The jump height will be equal to three times the height of the main character, and the double jump will be another jump on top of the first one, that can be triggered anytime after the launch in the air and before landing back on the ground. Making the Little Super Devil able to jump up to 6 times his height.

Objects

Special keys will be needed to open certain doors, but those will be instantly picked up by the player once they are being touched. Only some of the objects will be pushed around by the player and have physics implemented, while most of them will be static. Same goes for collectibles, some of the hazards and some of the platforms, which will be permanently static.

Some other objects that the player will interact with will be different types of platforms, moving, shrinking, falling, rotating and traps like spikes, holy water, blades, giant crosses, fire, that will actually heal the player, and special traps. None of those will instantly kill the player, unless the Little Super Devil falls off a platform and the traps will have a preset value of 10, 15, 30 or 50 damage points.
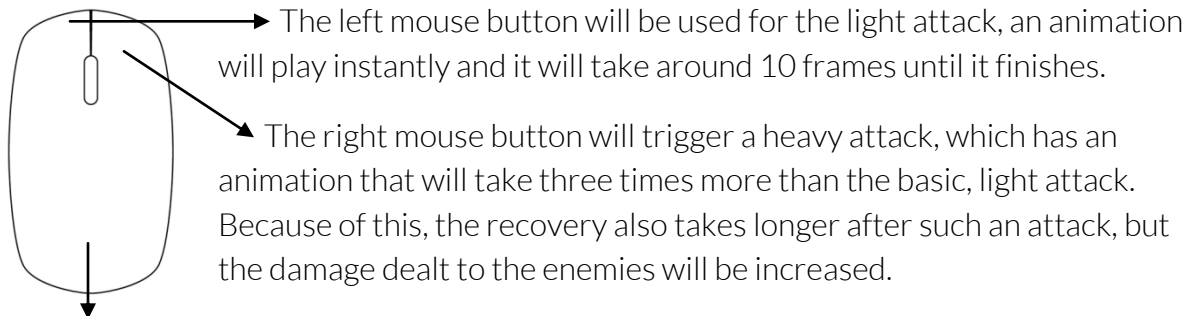
Actions

Along the game, the player will be able to push levers by hitting them, sit on specific buttons that will trigger different events and interact with a few objects just by getting in their proximity. The communication will be made through text that will show up on screen, although there will be sound effects, especially for voices, when there's the case.

Combat

The whole combat will revolve around the player, which will be able to use either fast or heavy attacks in order to deal damage to the enemies. Also, each enemy will be able to fight back with only one type of attack, unless it uses a more advanced AI, that is usually used only for the bosses. Those will follow a special, more complex pattern. On the next page can be found the controls and more details about how combat works in the game.

The left mouse button will be used for the light attack, an animation will play instantly and it will take around 10 frames until it finishes.

The right mouse button will trigger a heavy attack, which has an animation that will take three times more than the basic, light attack. Because of this, the recovery also takes longer after such an attack, but the damage dealt to the enemies will be increased.

Moving the mouse will control the camera, which orbits at a fixed distance around the player.

The left mouse button can be used while the player is in mid-air for an aerial attack.

By pressing shift, a directional key and the left mouse button, the player can dash through the enemies, dealing damage to them as well. Unlike the other abilities, this one can also be used for dodging or avoiding enemies, but it has a 3 seconds cooldown.

Attack	Control	Range	Speed	Direction	Damage
Light	Left Mouse Button	Close	Fast	Horizontal	Low (10)
Heavy	Right Mouse Button	Close	Slow	Vertical	High (30)
Aerial	Any Mouse Button (air)	Medium	Medium	Downwards	Medium (20)
Dash	Shift + LMB + Direction Key	Long	Fast	Forward	Low (15)

The normal enemies have either 30, 50 or 100 health points. They will strike back with only one attack, usually dealing somewhere between 10-20 damage points to the player,

except the bosses which will have a more complex pattern, more powerful attacks and more health.

Although the attacks cannot be used in complex combo moves, they can follow one after another without restrictions but the dash one.

Screen Flow

```
┌─────────────────┐
│   Intro + Logo  │
│                 │
│    Screen 1     │
└────────┬────────┘
         │
         ▼
┌─────────────────┐   Options    ┌─────────────────┐
│   Main Menu     │─────────────▶│  Options Menu   │
│                 │              │                 │
│   Screen 2      │◀─────────────│   Screen 3      │
└───┬─────────▲───┘              └─────────────────┘
    │         │                           ▲
    ▼         │           Options         │
┌─────────────────┐                       │
│  Level Select   │      Quit             │
│                 │                       │
│   Screen 4      │                       │
└────────┬────────┘                       │
         │ Play                           │
         ▼                                ▼
┌─────────────────┐   Esc        ┌─────────────────┐
│    In-Game      │─────────────▶│   Esc Menu      │
│                 │◀─────────────│                 │
│   Screen 5      │              │   Screen 6      │
└─────────────────┘              └─────────────────┘
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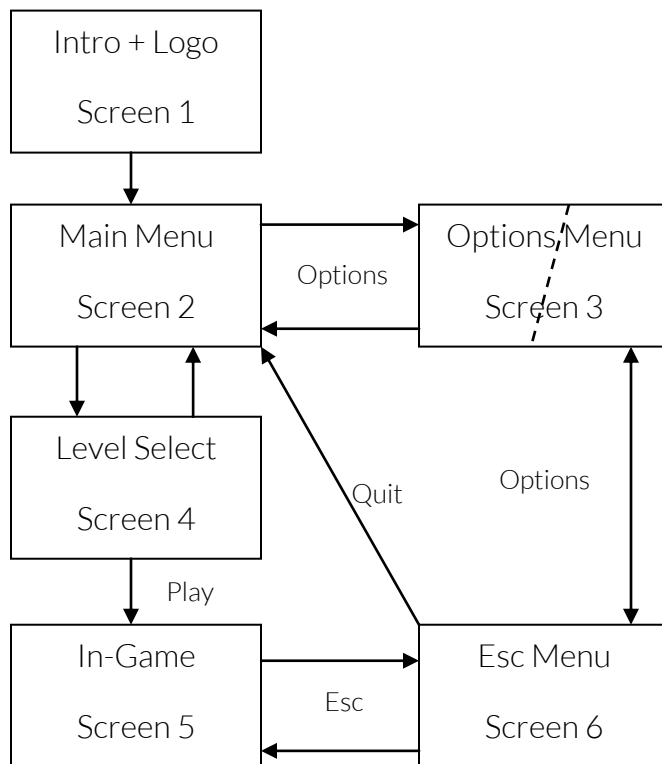
Screen 1 represents the first thing that will show up as soon as the player boots the game. It will contain the Unity Logo, followed by our team's logo and composition. The introductory cutscene will also be played right afterwards. All this screen will be skippable.

As soon as Screen 1 ends, the second screen, Screen 2 will show up. This one will be a 3D interactive main menu screen, which will have 3 main buttons. Play, options and quit.

Depending on the player's selection, Screen 2 will either take them to the options menu, Screen 3, where different options for sound, music, resolution and a few others will be available for the player to modify, or they can end up in Screen 4, which represents the level selection screen. Both Screen 4 and Screen 3 will allow the player to come back into Screen 2.

Once the player selects a level in Screen 4, they will be sent to the 5th screen, which repersents the in-game screen. This is where the whole game takes place.

The last screen, number 6, can be issued by pressing ESC, which will allow the player to either change options, leave the game and go back into Screen 2 or resume playing.

Although the players will be able to return from the options menu (Screen 3) to the main menu (Screen 2), this will not be directly possible if the player goes into the options menu through the ESC menu (Screen 6). That is why the options menu is divided, because it will have a few different settings available if the player will access it through the main menu.

Game Options

The options menu will contain the following options, if selected from the main menu:

- Resolution
- Fullscreen checkbox
- Quality (Can pick between 5 levels of graphics quality, strting from low, simple, and going up to medium, high, and best)
- Bloom checkbox
- Anti-aliasing checkbox
- Depth of Field checkbox
- Music volume glider
- Sound volume glider
- Controls droplist (Which will allow the player to rebind the input buttons)

Replaying and Saving

The whole game will feature checkpoints around the levels, but once a level is unlocked, it will stay that way forever. This way the players won't have to go through the frustration of playing the entire level again if they die while playing. However, if you quit the game while playing, your whole progress will not be saved. You will have to unlock a level in order to have it unlocked and be able to select it after coming back in the game.

We encourage the players to replay the game by adding more optional collectibles. This way they'll stay engaged and may want to collect all the coins in the game for unlocking a special achivement, which features a cutscene with the epilogue.

Cheats and Easter Eggs

Little Super Devil will feature different easter eggs which will serve as pop culture references. Like quotes, objects and texts, as well as some characters.

We will only use cheats while developing the game to be able to test mechanics easier and we do not plan on including any of them in the final game.

Story, Setting and Characters

Story and Narrative

Super Little Devil takes place on earth, which is represented as a platformer world. You are what mankind believes to be the Little Super Devil. However, there are three things that they've got all wrong: 1) Everyone goes to Heaven, no matter what they do in life. 2) You're the only one who's ever escaped Heaven. 3) Heavenly creatures are now trying to take over the earth, because there's no more space up there, in the clouds.

After years of searching, a powerful sorcerer has found the spell to summon the most dangerous demon in hell. What he doesn't know is that you're the only demon down there, the founder of hell.

When he performs the ritual, the cloud of smoke disperses to reveal a tiny demon, you, staring at him with a bowl of popcorn in your hands: "Well... This is awkward. Hi Bob, what's the deal?".

That's when you realize what's going on and that by saving the world you could also make a highway to hell in order to have some other residents down there in your homeland. The player will take the control of the main character, the Little Super Devil which has to survive the hazards prepared and fight through all the angels in order to have some one on one time with the one behind all this mess.

The game will not feature any cutscenes that will take away the control from the player, instead the whole narrative and story will be told while playing and sometimes by different characters whenever the player will approach them. There are a few different environments that can be explored along the game, with various level sizes, as well as some special bonus ones.

Most of the game will take place during night time and the main enemies will be priests, different saints, angels and archangels, the last which represent bosses. There will be a few variations of each enemy when it comes to colours, but the animations, models and mechanics will always stay the same since each will follow a specific pattern that the player will have to get used to, in order to understand how they work and to beat them easily.

Game World

General Look and Feel

The whole world will make the player feel pretty small in comparison with everything else. Starting with the environment and ending with the enemies. However, because of the low poly look, everything should feel threatening in a hilarious way, causing a smile on the player's face.

Areas

Level	Description
Level 1	The first level takes place on a street, featuring huge buildings, a few props and only platformer mechanics and a few hazards.
Level 2	Level 2 will introduce enemies and will mix them up with the hazards already introduced in the game.
Level 3	Level 3 will change the setting a bit, taking place in a wider area where the player will have a bit more freedom and will feature the first boss battle.
Level 4	Level 4 will introduce a brand new puzzle mechanics in which some platforms will move as the player jumps and will be one of the longest levels.
Level 5	Level 5 will serve as the grand finale, taking place in the end, after surviving different enemies and hazards, inside a huge church with more details than previous levels.

The last level will feature the biggest boss battle and level 2, 4 and 5 will include bonus levels. The bonus levels will be challenging levels only for the players that want to collect all the coins in the game in order to unlock the epilogue of the whole story.

All the levels included in the table above are main levels which have to be fully finished by the player in order to reach the end of the game. The bonus levels are not mandatory and they will not directly influence the game's story.

Characters

| Character	Concept / Model	Description
Little Super Devil		The Little Devil is the main character of the story and he's a friendly demon that wants to save the world. He likes video games and movies. He dislikes angels and their propaganda.
Priest		Although the priests are humans, they do support the angel's propaganda. They are slow enemies that will chase you and will attack with holy water and incense.
Deads (Moaste)		Deads are fast holy creatures that are considered saints who died. Before the attack, people used to pray and kiss those. They will attack and chase you fast once they get nearby.
Archangels		Archangels will be the most powerful enemies in the game. They can travel long distances by jumping, their wings are made out of crystals and when they hit, they hit hard.
Angels		Angels will appear as well and they will be weaker than Archangels, but they will hit you from above, because they will constantly fly.

Interface

Visual System

Although the hud will be very simplistic, it will include only the health of the character and if he has picked up any special items that will be useful later on.

An icon with a coin and the number of coins collected and total in the level will show up each time a coin is picked up by the player. This hud element will fade after a few seconds, but can be always seen permanently if the player will press the esc key to go into the ESC menu.

This way we are trying to avoid feeling the hud with unnecessary elements so the player can focus on the gameplay and the art of the game.
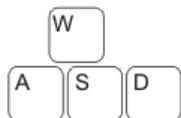
The camera will be fully controlled by the player with the mouse and it will orbit around the player. The character will move relative to the camera.

We took those decision because we highly consider controller suport for our game, and depending on how the PC release goes, even a console port.
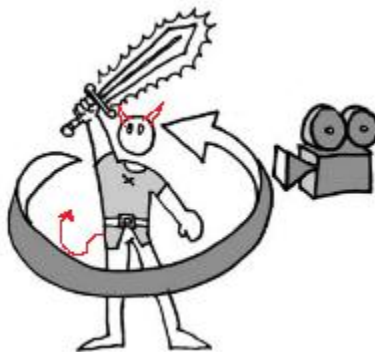
Control System

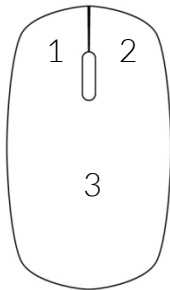As stated before the game will use the following buttons:

 The w, a, s, d keys will be used for movement.

 By pressing shift in combo with any directional key and the left mouse button, the character will perform a dash.

Spacebar will make the Super Little Devil jump up in the air. If pressed once again while airborn, it will cause the main character to do a second jump in the air.

The 1st button is the LMB (Left Mouse Button) and once clicked it will trigger a light attack.
The 2nd button is the RMB (Right Mouse Button) and once clicked it will trigger a heavy attack.
If the player presses the LMB (1) while being in air, the character will also do an aerial attack.
3 represents the whole mouse which controls the camera when moved.

Audio, Music, Sound Effects

The entire game will feature original tracks, sound effects and other audio, as well as a few unlicensed songs in a few portions of the games.

The characters will have voices, although they will not speak words but just do hilarious sounds when being hit, interacting or talking.

We will focus on the theme when it comes to audio because we consider it to be the 'heart' of musical composition. However we'll also work closely with our sound designer in order to have every single aspect polished in Little Super Devil, starting with the rhythm, and ending with the accent and pitch of each sound in particular.

Our goal is to have a consistent soundtrack that will fit with the theme of the game, but we do have in mind a combination of both goofy and serious songs, especially when it comes to boss battles which will feature some metal songs.

Although every single time in the game you will hear something, that's why we will implement sounds by priority. Therefore, we'll create 3 main categories:

- Local sound effects, will only play when the player is close to the source;
- Distant sound effects, which will be heard even from far away;
- Priority sound effects, like the player getting hit, loos of health, footsteps, etc.;

Artificial Intelligence

Opponent and Enemy AI

The AI in Little Super Devil will be divided in a few categories, as following:

The chaser AI. This will be the default AI for our Priests and for our Deads. Although they will start by patrolling in some areas, as soon as the main character comes nearby they will switch their focus on him and try to chase and attack him. Simple, but effective. Sometimes they'll be modified to stay in guard mode. That means that they will stop following the player after chasing him away from the gate, coins or other collectible they are guarding.

The flyer AI. Those enemies work similar with the chaser ones, but it will be applied to the angels, which will fly. They'll either swoop down to attack or use the range attack to hit you. The only way to kill them will be to wait until they swoop or try to kill them with an a jump attack, an aerial.
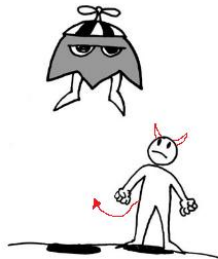
The boss AI, which will be a more complex AI and will follow a special pattern of attacks. Those will force the players to use the environment in their advantage. They will be able to do so by hiding or jumping to reach higher places. Each boss will use a different AI, but they will all be fought only in special zones and areas. They will have vulnerable states and invulnerable ones, as well as custom movement paths and custom attacks. The camera will also be affected in some cases to emphatize on the scale of the fights and the level design. Although the enemy boss will have no hud, the players will be able to tell how much of their health is gone by the pattern of attacks, which will change after the boss reaches certain health values.

Non Combat and Friendly Characters

Beside Bob, there will be no other notable friendly characters. He will be the only one that will talk to the player and assist him from time to time. There will be some humans that will either follow a random path in which they'll constantly run and scream, as well as a few scripted ones that will go from one direction to another for various reasons. While being outside the boss battles, every other NPC will be used to emphasize drama over scale.

Technical

Target Hardware

The main target for the release version is the PC, with separate versions for Windows and Linux. So far the game runs fine on a wide range of devices, and the minimum system requirements are:

- 4 GB of RAM;
- NVIDIA GeForce 9800 GT or Ati Radeon HD 5770, both having 1GB of VRAM;
- 1GB of hard disk space;
- Any CPU the i3 series or the FX from AMD.

Currently, a console version is considered, but there are no plans towards other releases beside the PC one.
The whole game will also be playable with a controller and the feature will be added after the release in the first major update.

Development Hardware and Software

Currently the game is being programmed mainly on a machine with 16GB of RAM, Ryzen 1800X, and two RX480 GPUs in crossfire.

The engine used is Unity, and the extra software used along with it are 3ds Max for modelling and Audacity currently for some sound editing.

All the art assets for the game are being developed in-house and we are not using any other free or paid ones available on the Unity store.

Game Art

CRISTALE

PEDOFIL
PROFESIONIST
CU TĂMÂIE

MOAȘTE!

ARHANGHEL
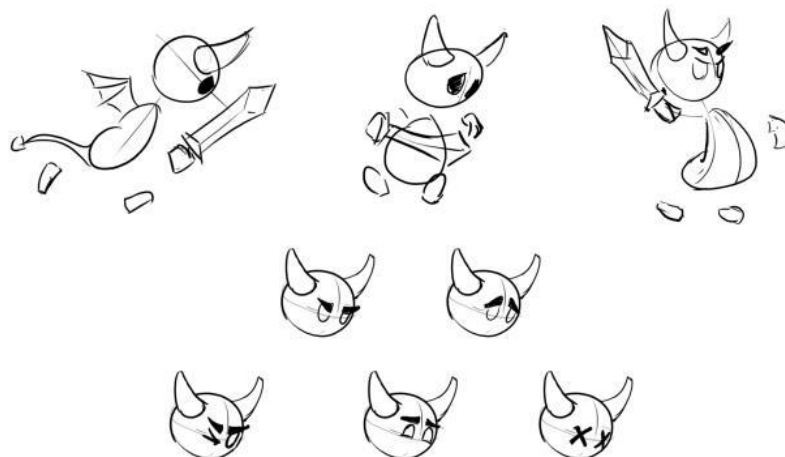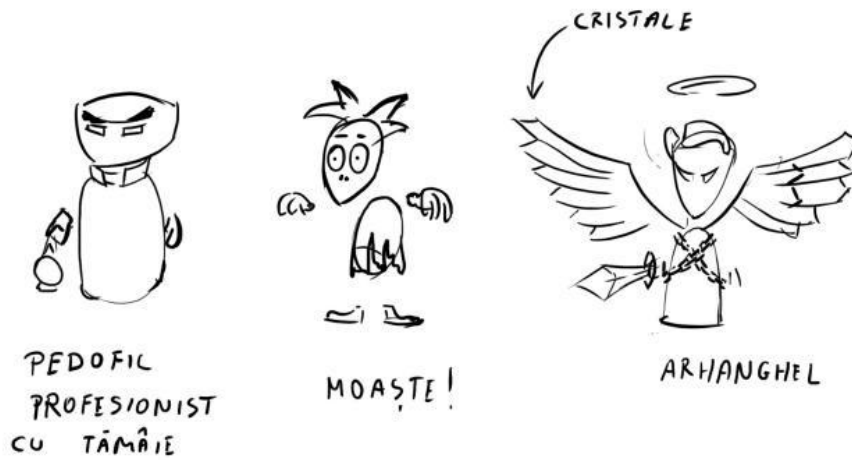
Special thanks to my colleagues for their amazing work and to Scott Rogers who created the simple sketches that I used to demonstrate some game mechanics along the document.