My Name Is MUD

Product Design

Game Overview

~~In this Action-Adventure game, you play as Mud. Mud is always hungry and needs to find food in the mansion without getting caught by the patrolling ghost or waking up the Count.~~

Title: My name is Mud.
Platform: PC VR + Mobile VR
Genre: Action 3D stealth shooter(spells)
Rating: (10+) ESRB
Target: Casual gamer (aging from 12 - 30)
Release date: 24th, April, 2020
Publisher: VFS Student

“My Name Is MUD” is a Third-Person Action Stealth Arcade Game where the Player is ‘MUD’ a chibi Skeleton Buttler (Unisex) who loves collecting loot, but he/she needs to take care of Countess Fe while she sleepwalks through the night. Now the Player must explore the Castle for loot while clearing a path for the Countess to sleepwalk and not waking up while not alarming the Ghosts that patrol the Mansion. They may without being seen sneak up and control the ghost patrol paths by casting spells to mobilize/immobilize the Ghost in one of three different ways (Sneaky Sleeper, Zapper Stunner, Sticky Slime) . They may accrue points by collecting as much loot as he can through the night without waking up the Countess. The Player needs to get through all the loot he can in a floor exploring the floor through the night to progress to the next level in the game.

High Concept

My Name Is MUD sets the Player in a magnificent Castle where he/she loves to collect loot but he needs to take care of his Countess Fe who sleepwalks in the night. Don't get caught by the patrolling Ghosts who roam the corridors. Stealthily explore the Castle for loot while avoiding the Ghosts and keeping the Countess from waking up ! Use the Sneaky Sleeper to make a ghost slowly go to sleep, the Zapper Stunner to make a sleeping ghost temporarily sleepwalk for a bit, throw Sticky Slime to stick ghosts to the wall.

Unique Selling Points

- A VR Based 3rd Person Experiment
- Unique Toony World and Interactions
- Stunning Cinematic Visual Style(TBD)

Competence Titles

Action 3D Stealth Fantasy by Wesley

Synopsis

In the heart of Monster Castle, Countess Fe decides to sleepwalk through the castle. You are MUD-her Chibi Skeleton Butler who loves loot but needs to take care of her while she explores the castle looking for food without waking up the ghosts that patrol the corridors. Ohh Oh, Now you in big trouble … !

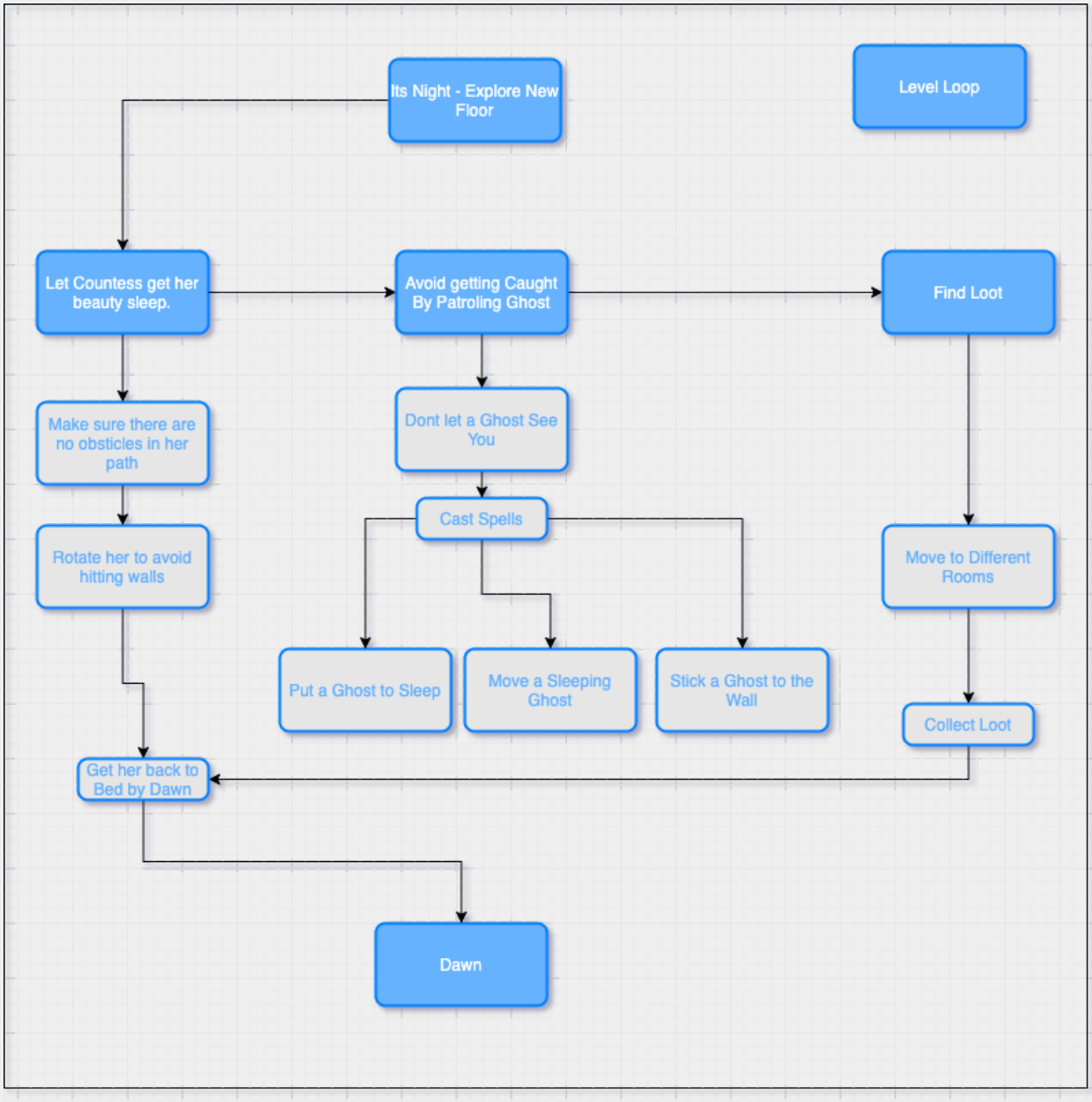
Game Objectives

The objective of the game is to explore the Castle for loot while making sure Countess Fe gets to sleepwalk safely for as many nights as possible, scoring points by finding loot while not getting caught by the Patrolling Ghost.

Game Rules

The game level is a closed environment set in a Monster Castle where the Player is taking care of his Countess Fe while she sleepwalks through the night.
The Player can move around and control Ghost patrol movement with 3 different Spells (see Spells).
In this level, there are different spawn points from which the Ghost originate and have distinctly designed patrol patterns.
Each Ghost has a different behaviour and will try to eat the Player if it sees you (see Ghosts).
The player scores points by collecting loot along the way.
The Player passes the level if he returns Countess Fe to her room by Dawn.

Game Structure



Gameplay Game Controls

Debugging

WASD - Move
Mouse Point and Left Click to perform an Action.

Oculus VR

(TBD)

How to experience spells in VR?

Game Camera (TBD)

~~When the game starts, the camera will focus on the two characters the player can choose from. The camera will remain still while the Player chooses a character to play with.~~	
~~After the selection is made, the camera will turn 180 degrees and will continue following him/ her from a fixed point of view. The camera will not rotate with the Player's movement. The background will be seen from a 3/4 perspective but for convenience, it will be rotated by 90 degrees so that the camera can use the global coordinate system. The camera will not turn when the Player does, so we get to see him/her from different angles as the scene maintains the same camera view.~~	

PLAYER INTERFACE (TBD)

We use the player Motion Control hands to place widgets the user can interface with.

• Let it glow with energy and other fx as you can cast spells.	
• GHOST ALARM: spell energy pulses fast when ghosts come near you. • SPELLS: Show spells as revolving glowing spheres around your hand that you can pick and use. • SPELLS COOLDOWN: sphere wobbles like a heartbeat and slowly glows brighter.	

Player

Player Characters • The boy and girl is a naughty butler • He took this job because the countess said he can collect all the loot the ghost left provided he takes care of the countess when she sleepwalks so that she can have a good night's sleep.	
Player Metrics • ~~**Speed:** 6 Max~~ • ~~**Health:** 100~~ • ~~**Attack Damage:** N/A~~ • ~~**Time to attack:** Depending on weapon~~	
Player Stats • **Idle:** The idle state your ghost comes out of you and suggests what to do next. It plays back when the Player remains still. • **Move:** The player moves the character by aiming a projectile moving you in a 1st person view • **Death:** The death animation will	

make you slowly pan out your view from Mud giving you a 3rd person view of the ghost plucking your head off.	

Player Spells

The Player has 3 different Spells to attack the Ghost, each with a different effect .

Spell	Description	Effect on Ghost	Cooldown	Reticle
Sneaky Sleeper	Sneak behind the ghost and sprinkle dust on him will put him to sleep in awhile	Ghost sleeps after 2 sec for 10 sec.	2	No
Zapper Stunner	Zapp a sleeping ghost to move him to give way.	Sleeping Ghost moves 2 units for every 10 units of Zapp juice	5	No
Sticky Slime	Throw slime at a ghost if he sees you before he alerts the others and comes after you.	Ghost gets stuck to the wall	10	Snap to Closest Ghost

Character Line-up(TBD)

NPC Ghost(TBD in prototype)

The Ghost spawn from different spawn points located in the environment (see Level Design) . They are constantly in **need** of something and move towards it but **want** to change their path when they find something of interest. When they see the Player, they attack, producing different amounts of damage, depending on their type . All of the Enemies react differently to the different Spells (see Spells) and can be taken down differently.

Name	Alert	Want	Need	TakeDown Cost
Juju Bean	**Alarm:** See the player in front of him **Reaction:** Chase Player and Eat Him	Loves to follow Candy Trails in the corridors	Follows fireflies around the Castle	**Sticky Slime:** 1 Hit **Zapper** **Stunner:** 1 Hit **Sneaky** **Sleeper:** 1 Hit
Bub Long Legs	**Alarm:** See player in front and back of him **Reaction:** Chase Player and Eat Him	Likes to stop at Mirrors to See His Feet	Runs from Window to Window to pass the time.	**Sticky Slime:** 2 Hit **Zapper** **Stunner:** 2 Hit **Sneaky** **Sleeper:** 1 Hit
Spidy Bun	**Alarm:** Sence player across a ***4 unity radius*** Including through walls **Reaction:** Chase Player and Eat Him	Wait at every turn and window to enjoy the view.	Bounces from ceiling to floor at every turn.	**Sticky Slime:** 1 Hit **Zapper** **Stunner:** N/A **Sneaky** **Sleeper:** N/A

Enemy Stats	
• **Sleep:** • **Move:** • **Alert:** • **Want:** • **Need:**	

• **Eat:**	

Art (TBD)

Setting

The game takes place in a Castle. The corridors look and rooms look like gothic interiors with exaggerated size and perspectives.

Level Design(TBD)

Audio(TBD)

Name	Category	Description
Background Music	music	a melody that can feel spooky
Danger Music	music	back hair lifting melody that creeps in and out of your ears
Being smart music	music	melancholy but uplifting,
eating sound	fx	ghost eats you
zapping spell	fx	loony electric zap
snoring ghost	fx	a funny snore for a ghost when the go to sleep
walk	fx	walk sound to use for player, countess and the AI
squeaky jump	fx	juju bean needs a toony sound as it bounces around

Technical Design

Technical Summary

My name is MUD, will be developed in approximately 2 weeks by me using the Unity game engine. For 3D asset creation, procedural assets will be created in code. ~~The total production cost of the game will exceed USD $50,000 .00. Revenue from the game will offset the investment. The remaining costs will be amortized through the release of future game titles.~~ The game will be deployed for Oculus VR for user testing and the experience will be documented for research purposes on medium as an experiment in VR interaction.

Platform Minimum Requirements

PC VR

OS: Windows 10
Graphics card: ~~DX9 (shader model 2 .0) capabilities;~~ generally everything that supports VR Headsets.

Mobile VR (Oculus Go, Oculus Quest)

~~OS 2 .3 .1 or later;~~
~~ARMv7 (Cortex) CPU with NEON support or Atom CPU;~~
~~OpenGL ES 2 .0 or later .~~
Limits: 100k tris.

MVP (Minimum Viable Product)

- One Player character
- One Ghost character
- One Countess
- One Floor That goes through the time of day.
- Built for the PC VR platform.

Equipment

Hardware

Using a MacBook Pro, Windows PC computers, and Oculus Rift S hardware already provided.

Product	Task	Cost	Total
MacBook pro	Asset Creation		
windows pc	Game Development		
iPad	for sketching, scheduling, planning and documentation		
oculus rift s	target hardware for interfacing.		

Software

All the software used for the development of My name is MUD will be able to produce high-end visuals, while still being able to deploy across different platforms . ~~Not all team members will utilize all software tools. Software requirements and selections will vary based on team member roles and responsibilities.~~

Product	Task	Cost	Total
Unity 2019.2	Game Editor/Engine		
Blender	Used for Asset Creation		
substance	for materials and texturing		

photoshop and forge	for sketching,sculpting,ideation		
google docs and draw.io	for documentation and ideation		
notion.io and Github	for planning, scheduling and versioning.		

Evaluation

Game Engine

The game engine utilized for the development of My Name is MUD is Unity because we can create a 3D game with ease, we can make it highly-optimized and beautiful, and we can deploy it with a click to multiple platforms. In addition, we can use Unity's integrated services to speed up our development process, optimize our game, connect with an audience, and achieve success .

Target Platform

My Name is MUD will be deployed to PC VR and Mobile VR. On one hand, the PC platform is the perfect target for this game as it is designed to handle more intense games then this thus allowing us to focus on design and VR interactions. On the other hand, the Mobile VR platform is a great target because Quest is picking up and the game can be optimized for such platforms. Deploying across two different platforms will allow us to check out and document the development constraints while dealing with the two different platforms.

Scheduling

Development Plan

Product\Time	2nd April	7th April	9th April	14th April

2D Assets		2D assets should be fleshed out and updated in the document I.e UI and FX	2D assets should be fully implemented in-game.	
3D Assets			3D assets should be sketched out in document	3D assets should be in-game
Scripts			scripts should be refactored from prototype as an API	procedural levels should be ready
Audio			audio should be iterated over	audio should be finalized
Prototype		prototype should show all the functionality of the game		
Design and Plan	Design should be almost complete			

Milestones

7th April	prototype test-out - see if game works
14th April	3D asset integration - setup the look
16th April	first beta - the game is done
18th April	Gold - document game development online

Updates, Maintenance & DLCs

Implement the wishlist.

Work Environment

Remote Collaboration

~~The team is multi-national; collaborating on this project from around the world. Because of this,~~ we are developing the game utilizing Google Drive for documents and Github to maintain a single, synced project that allows us to iterate on the deliverables in an organized manner even as a single developer team.

File Formats & Naming Convention

Asset Type	Subtype	Naming Convention	File Format	Annotations
3D Assets	Character		.fbx	
	Props		.fbx	
	Environment		.fbx	
Animation			.fbx	
Textures			.png	
Scripts	player movement		.prefabs	
	player spell cast		.prefabs	
	AI movement		.prefabs	
	AI states		.prefabs	
	player interface		.prefabs	
	game screens		.prefabs	

Materials	character			
	environment and props			
	fx			
UI				

Asset List

Category	Assets
Characters	MUD(player)
	Countess Fe
	Juju Beans
	Bub Long Legs
	Spidy bun
Props	chair
	table
	bed
	painting
	cupboard
Environment	bedroom
	corridor
	dining room
FX	spell balls
	spell cast
	splash screen motion graph

	win state motion graphics
	loose state motion graphic

Wishlist

ADD PROCEDURAL LEVELS

Once the mechanics are understood we could create a progressive level system that increments procedurally. Integrate Houdini to dynamically customize the look and feel on the fly.

ADD CUSTOM 3D ASSETS

For 3D asset creation, Blender will be used, with Adobe Photoshop and Forge(iPad) utilized for texture painting and sculpting

CONNECT TO A CLOUD INTELLIGENCE

Connect firebase with authentication, TensorFlow ML, Google speech to text, Google text to speech and use it to interact with the AI and the player in the game.

CREATE EMERGENT BEHAVIOUR WITH THE AI

See if we could use this as a testbed for some genetics algorithms and ML learning to create new behaviours.

DESIGN HISTORY

Every time you update your Design Document, make sure to add the changes to your design history.

- March 31st - fleshed out the basic idea.
- April 1st - setup player interface with ideas for VR hand interactions.
- April 6th - updated scope based on Erik Feedback