

Final Project Report

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Type: Unity Game Project

Description

This final project is a Unity game project. The title of the game is “Crystal Redemption”. It has five scenes, which are the start scene, grass scene, snow scene, lava scene, and end scene. The order of the scenes is:

Start Scene → Grass Scene (Level 1) → Snow Scene (Level 2) → Lava Scene (Level 3) → End Scene

The start scene consists of the title, and four buttons. The four buttons are “Start Game”, “Story”, “Commands”, and “Quit”. The start game button starts the game on the first level. The story button brings up a story dialog, which contains the background story of the game. The commands button brings up the key→action controls for the user. The quit button exits the game. The background of the start screen is in space and rotates slowly 360 degrees clockwise.

There are three levels that have their own themes while still having the overall dark theme. The three themes are grass, snow, and lava. Each level has a spawn point, paths, forests, scenery, redemption crystals, point crystals, health crystals, and AI monsters that try to kill you. There are different types of monsters that attack at different melee ranges, speeds, and damage per attacks. There are spiders, goblins, skeletons, trolls, and golems. The game has many simple NPCs instead of a small number of complicated NPCs.



The end scene consists of telling the player they have won, and displaying the points they’ve accumulated over the course of the game. The background of the end screen has the same slow rotating camera effect. The difference is it is a different scenery that is displayed.




Game Objective




The objective of the game is to collect the redemption crystals while trying not to die from the monsters. The redemption crystals have a specific look with particle effects. Once all the redemption crystals are collected, the stage will be completed and will onto the next level. There is a side goal of collecting the most points. The redemption crystals give 100 points, which the point crystals only give 20 points. When all the levels are completed, the game will enter the end scene. In the end scene, the player’s points is displayed, as that is their end game score.

Game Index

Player		
Name	Picture	Description
Samurai		Samurai playable character.

Monsters		
Name	Picture	Description
Spider		Damage: 5 Attack Speed: Slow
Goblin		Damage: 5 Attack Speed: Moderate-Fast

<p>Skeleton</p>		<p>Damage: 10 Attack Speed: Moderate</p>
<p>Troll</p>		<p>Damage: 10 Attack Speed: Moderate-Fast</p>
<p>Golem</p>		<p>Damage: 20 Attack Speed: Fast</p>

Crystals				
Name	Picture			Description
Redemption Crystal				Must collect all of these to pass the level. Gives the player 100 points.
Point Crystal				Gives the player 20 points.
Health Crystal				Gives the player 20 health points.

Game Problems

When the player respawns, the player is held in position and is a bug. A solution to this could be to add a wait until the player is not stuck anymore. Ultimately, increase the time between the player's death and the player's respawn time. Another problem is that quit menu. The quit menu seems to spawn two quit menus, which requires the player to click cancel twice to exit the quit menu. The scaling of some of the GUI is incorrect. When having it at a larger size, it is fine. When having it at a smaller size, it does not scale properly. The player cannot kill monsters at this moment. This is due to not being able to get the player's attack animation to work. The monsters all have health set up so that in the future this can be implemented.

Future Additions

- One of the future additions would be to fix the scaling issues to get game to scale properly for smaller sized screens.
- Make the GUI more presentable. Change up the health bar, font type and such.
- Add more to the quit menu so that there are more options. Like accessing the story or commands.
- Make the player be able to attack and kill the monsters.
- Add more levels / increase the size of levels. (Scenery, monsters, collectables, etc.)
- Add more playable characters.