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Dragonlord Chronicles

Team 18

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Abstract

Dragonlord Chronicles is designed to be an interactive roleplaying game (RPG) that can be enjoyed by average players. The primary focus of the game is fighting, capturing, and training dragons in a medieval fantasy setting, taking inspiration from Nintendo's *Pokémon* series. The game offers players with an immersive and engaging narrative experience as well as complex strategy required for many of the combat encounters. The game will be developed using Unity and programmed in C#. It will feature 2D pixel art aesthetics to make it feel reminiscent of classic SNES RPGs. This document describes the functionality of the prototype along with a critical analysis from our advisors and external stakeholders.

Introduction

Dragonlord Chronicles is a computer-based Role-Playing Game that will be designed in Unity and programmed in C#. The goal of this project is to create an immersive game where the player can explore a medieval fantasy world that is populated with a wide range of dragons.

The core gameplay will revolve around combat, exploration, and story.

The story will begin with a prophecy that tells how a hero, with a special affinity to the dragons of the world, during a time of calamity, shall seal away an ancient evil to bring peace to the world.

The exploration will involve visiting different regions of the world to find new species of dragons, to complete sidequests, and to engage in the main story.

The combat system will consist of the player as the primary participant in combat, with up to one companion dragon by their side to complement their skillset. The player and dragon are each able to perform one action per turn, such as attacking, casting a spell, using an item, etc. Only one dragon may be active at a time, but different dragons can be swapped in and out during combat.

Since PA3, we have began implementing different core components of our game into a prototype so our advisors and our stakeholders may understand our vision for this project. Some of these components involve User-Interface (UI) Design, inventory system, battle system, player controls, NPC characters, and other boilerplate code to make our game work behind-the-scenes. For more information on the prototype, refer to the "Prototype Objectives and Functionality" section.

Prototype Objectives and Functionality

The prototype for Dragonlord Chronicles will demonstrate the core mechanics of our game in the form of a simple demo. We plan on exploring the following mechanics:

1) Game State Management. Our game will need a system that elegantly transitions from different states (for example, from the overworld to the battle scene). This will be implemented in the form of a state stack that allows for the popping and pushing of game states.

2) Combat system. This was included because most of the player's time will be spent doing two things: exploring and battling.

3) Scene Transition System. This was included because our world will be comprised of many different scenes with their own tilemaps and NPCs. The player should also be able to warp to places within the same scene and to other scenes as well.

4) UI Design. In order to interact with the mechanisms described above, there will be a User Interface layer.

5) Serialization. This was included because we will need a system that allows us to save and load data.

Unfortunately, we are unable to implement every feature of Dragonlord Chronicles for the prototype. We decided to omit the following mechanics:

1) Animations. Due to time constraints, we decided to prioritize implementing the core mechanics and UI design. Since we did not have enough time to create animations for each of the sprites used in the prototypes, animations were not included.

2) Sidequests. In the final game, we plan on having a series of quests that can be completed in addition to the main story. However, this system needs to be designed after the inventory system, battle system, and NPC dialogue systems due to the way we plan on structuring quests. Because of that, we decided not to have sidequests in the prototype.

3) Main story. We are still in the process of mapping out the course of events that the player will engage in as they traverse the world. Due to the amount of time that writing and implementing the story will require, we are unable to implement it into the prototype.

Develop Prototype

Figure 1: The main battle menu in Dragonlord Chronicles. The player can choose an action for their character or dragon, attempt to capture the enemy dragon, or flee the battle.

Figure 2: The action menu for the player's character. They can attack with a close range melee weapon, such as a sword, attack with a ranged weapon, such as a bow and arrow, or defend against enemy attacks.

Figure 3: The action menu for the player's dragon. The dragon can use a physical attack, use a spell from a list of known spells, or defend against enemy attacks.

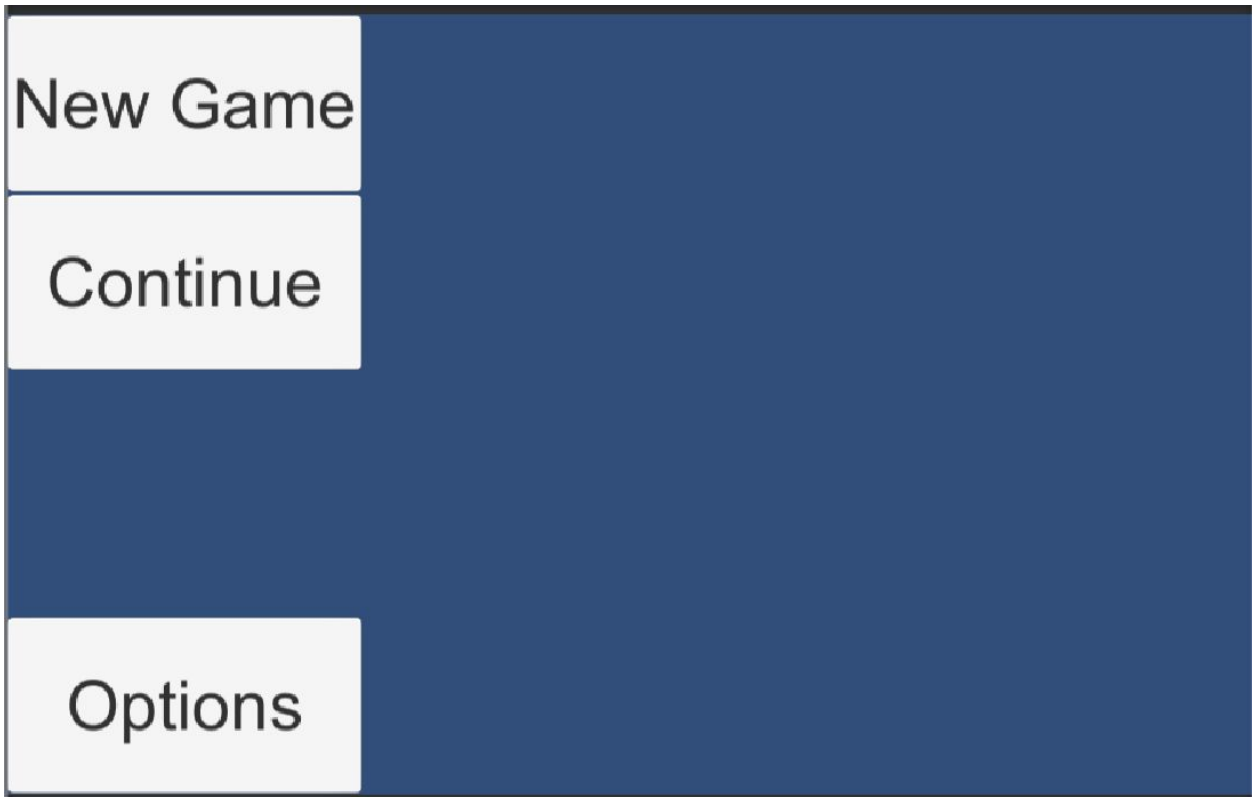

Figure 4: The main menu that displays when the game is started. In this prototype, New Game is the only functional button. This loads the player into the sample overworld scene. When the game is complete, New Game will start the game from the beginning of the story, Continue will allow the player to load a saved game file, and Options will take the player to the options menu.

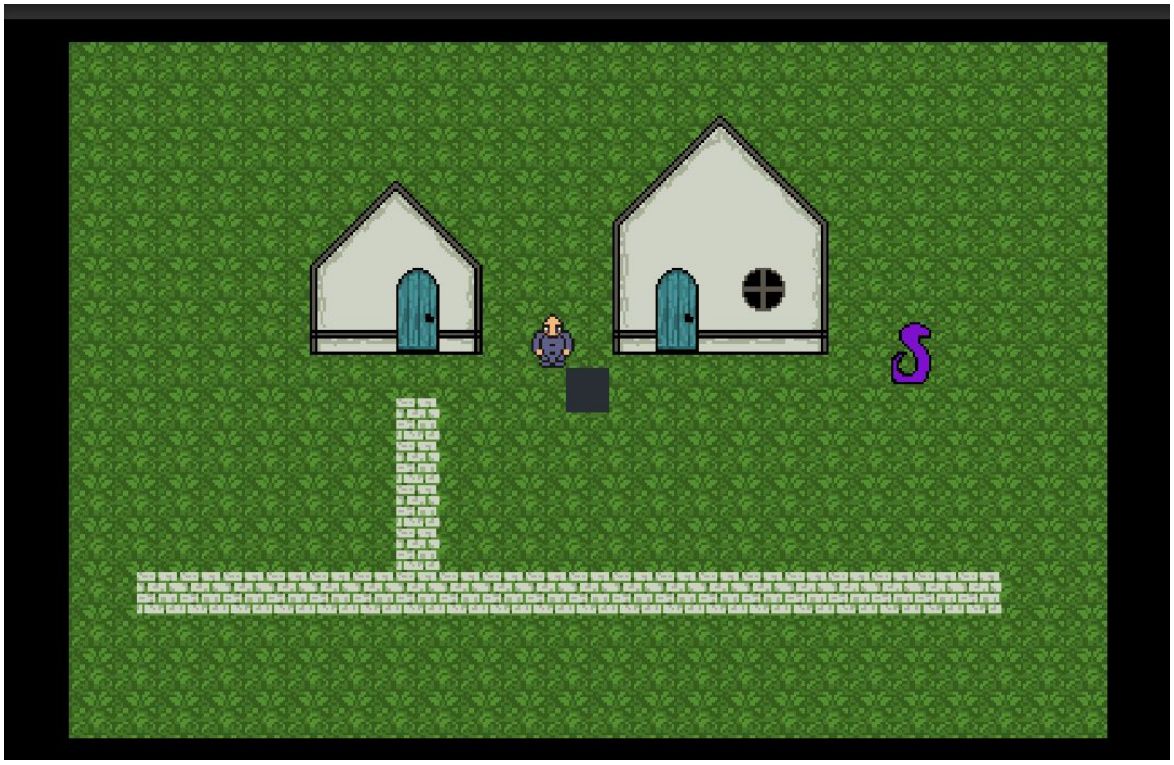

Figure 5: The sample overworld from the prototype. This scene demonstrates transferring into the overworld from the main menu and the general aesthetics of the game. The player character is represented by the placeholder black box, the man is an NPC, and the snake is an enemy.

Figure 6: An example of a dialogue box that will display when the player interacts with various characters or items.

Evaluate Prototype

Feedback Session #1: Eelke Folmer

On Thursday, December 6th, we met with Eelke Folmer, our advisor, to demonstrate our prototype. This version of the prototype featured state management, scene loading, combat, and a sample dialogue. There were also features that had no User-Interface to interact with, but we began implementing the design of the systems such as the quest system and inventory system.

Eelke said that we are making sufficient progress on the design of our prototype. He was surprised that the artwork was done by hand and not a part of an asset pack.

Eelke did not have any specific feedback to give. He told us to continue on our game because it looks like we could have a really fun and interesting project when the game is finished.

After meeting with Eelke, we decided that our prototype has enough content to give users the general idea of how the game will be designed and what kinds of actions that the player may perform. Nonetheless, we still need to work on user-feedback during the combat scene, so the player could better understand what is happening. We also need to work on the UI, so it is using a more cohesive design instead of the default buttons that are built-in.

Feedback Session #2: Matthew Trenner

The second stakeholder demonstration occurred on Friday, December 7th with our stakeholder from PA3, Matthew Trenner. The version that was presented was largely the same as what was shown in the first feedback session.

Matthew was initially excited to demo the prototype and spent several minutes exploring the overworld. Like Eelke, he commented that the artwork looked very good and was impressed the team was able to create them without external help. During this time, he had mentioned that he was most curious about the story of the game and wondered if the consequences of the player's actions would have a meaningful impact in the game.

When Matthew got to the combat scene, he seemed noticeably less excited. In the version demonstrated, there was no visual feedback to the buttons pressed during combat, and at this point quickly lost interest in demonstrating the game. Matthew's rapid loss of interest highlights the importance of the combat system, which is the core part of the game.

Matthew commented that he did like the premise of the game, however; he thought it was exciting to be able to play as a knight commanding dragons against other dragons. Although he

gave little in the way of direct feedback, his reactions to some of the shortcomings of the demo are a good indicator of what is important to him as a representative of our target audience. Despite the fact there was very little to do in the overworld, he still enjoyed the exploration, but lost interest very quickly when the combat system was not very enjoyable. Judging from his feedback, the team should work more to refine the combat system to make it as enjoyable as possible.

Demo Prototype

On Tuesday, December 11th, at 9:00am we met with Dr. Dascalu to demonstrate the prototype of Dragonlord Chronicles.

After demoing our prototype, Dascalu told us that he wanted to see more content that the user could interact with. We decided to focus the development of our prototype on boilerplate content to get various systems (state management, quests, inventory, combat, etc.) functional. We partially succeeded in demonstrating how our backend code connects to the user layer, but there is not enough gameplay to get a clear idea for how the game will be played. For next semester, he wants to see us implement more mechanics that can be enjoyed by the player, instead of focusing too much on backend systems.

Changes Needed to Software Design

The updates that will need to be made is a more complete battle system, overworld design. The battle system currently has a basic UI where the user is able to press buttons, but the buttons do not show that they are do anything. We will need to provide user feedback to show that the battle system is working. After we design a way to provide feedback we will need to implement a turn based system where the player, dragon, and the enemy each has a turn to make a move. The player will have a multiple choices to choose from during their turn and so will the dragon. The AI will be designed to react based on the current situation.

For the overworld design there is a working encounter system and a single test map. The updates that we will be working on for the future is designing more maps and creating more sprites that can be interacted with. The sprites that can be interacted with include NPCs, enemies, and items. We will be designing the overworld to spawn enemies in certain locations, and they will be visible at all times. If the player runs into the enemy, the battle scene will take place.

There will also be a quest system and UI for the quest system. There will need to be a UI for when the player interacts with items on the map or receives an item, and a UI for shops where the player can purchase or sell items. We will also need to create a database of spells and a database of items for the characters to use.

We will also need to create a player menu interface where the player can view and manage their character stats, inventory, and dragons. There also needs to be a system for players to be able to save their progress, which players will be able to access from the player menu.

Team Contributions

Jonathan worked primarily on the combat management code, the majority of the class handling data and functions for each of the game's entities (player, enemies, etc.), and designed and implemented the UI structure (but not functionality) during the battle scenes. The time spent working independently totaled approximately eight hours.

Sean worked on the game state management to allow the player to transition between the main menu, overworld, and battle scenes. He also began implementing the frameworks behind the inventory, dialogue, and quest systems. He designed artwork for the sample overworld. Sean also wrote the plan for the prototype design, and met with Eelke to show the prototype. The time spent working independently was about seven hours.

Ryan worked on the UI for the battle scene for the game. He also worked on the develop prototype and changes needed to software design section. Total time spent working independently was about four hours.

Christine worked on the script for enemy behavior during battle and implemented a spell database script. She also wrote the descriptions for the prototype screenshots and part of the "Changes Needed to Software Design" section. Her total time spent working independently was about six hours.

Additionally, all team members met for two sessions to work on the project in the ECC, for approximately two hours per session.