Individual Assignment Postmortem

1. Assignment Overview

• Assignment Number & Title

Assignment 02 - Vertical Slice

• Dates of the Assignment

Start Date: 02/03/2025
Final Date: 06/04/2025

• Individual Role in the Project

Full Stack Programmer
Web Programmer
General Artist
User Interface & User Experience Designer

• Tools & Technologies Used

Visual Studio Community 2022
Visual Studio Code
Github
Aseprite

2. Personal Assignment Goals

• List of objectives assigned to the student for the assignment

- Animation.
- Turn Based Combat.
- Save / Load System.
- GOD mode.

• Key features or improvements planned by the individual

- Overtake any art asset.
- Web vertical slice team postmortem implementations.

3. What I Accomplished

• List of completed tasks

- **Animation:** I implemented an efficient system of animation provided by:
    - **Animation sprites:** contains all the texture information.
    - **Animation clip:** contains a list of sprites and a position to display the list sequence into the position. It contains options to play at a custom speed, possibility of looping and custom frame events.
    - **Animator:** contains a list of animation clips to manage complex objects with possibility of a variety of animations to manage them.

- **Turn Based Combat System:** I implemented a complex turn based combat system which consist of:
    - **Attacks:** With possibility of damage, poison, burning, regeneration, defense variations, life absorb, turn block and multitarget. Infinite combinations.
    - **Combat System:** Consists in a sequence of combat starting, team attacks selection, combat sequence and loop until one team lasts.
    - **Combat Canvas:** GUI for the combat user input and combat flow, includes an overworld representation of each character, and 4 different attacks for each character.
    - **Combat AI:** Artificial logic to manage the enemy team, includes a simple efficiency ranking system to valorate most efficient moves in each turn.
- **Save/Load System:** Simple xml file saving flow which includes a default game template for creating new games, player position and dialogues states. Includes:
    - **User Preferences:** Saves game configurations (volumes, v sync, screen resolutions).

- **Character Data:** Saves every aspect of each character (ID, name, texture, map path, dialogue state, stats, combat stats, attacks and role.
- **Attack List:** Saves all the attacks present in game (id, name, target types, target amount, stats, effects).
- **GOD Mode:** Debug feature to show map colliders, npc paths and enable immortality during combats.

• Code or feature contributions to the project

Animation:
- Sprite.h
- Sprite.cpp
- AnimationClip.h
- AnimationClip.cpp
- Animator.h
- Animator.cpp

Turn Based Combat System:
- Attack.h
- Attack.cpp
- AttackList.h
- AttackList.cpp
- CombatAI.h
- CombatAI.cpp

- CombatCG.h
- CombatCG.cpp
- CombatGameState.h
- CombatGameState.cpp
- CombatStats.h
- CombatSystem.h
- CombatSystem.cpp

Save / Load System:
- UserPrefs.xml
- AttackList.xml
- CharacterData.xml
Save load function can be declared
in each specific needed class.

Art
- combat_icons.png

Web
- members.html
- members.css

• Positive takeaways from the assignment

Was a funny and learning experience.

4. Challenges & How I Solved Them

• Problems faced during development

Code issues and mistakes.

• How they were identified and personally resolved

Debugging and tracking code errors to solve them, analyzing data.

• **Remaining issues to address in future assignments**

Improve combat AI.

5. Key Learnings

• **Technical skills acquired**

- Soft skills, communication
- I learned to develop complex code structures and their implementation.
- I learned how to program a web using the code structure html + css + js

• **Personal development takeaways**

Being able to code complex code structures, efficient code and being able to think in future needed features for code.
Being able to develop a web starting from 0.
Create small assets.

• **Adjustments to the student's workflow and coding practices**

Being faster and more resolutive with code, being able to take high quality visual assets.
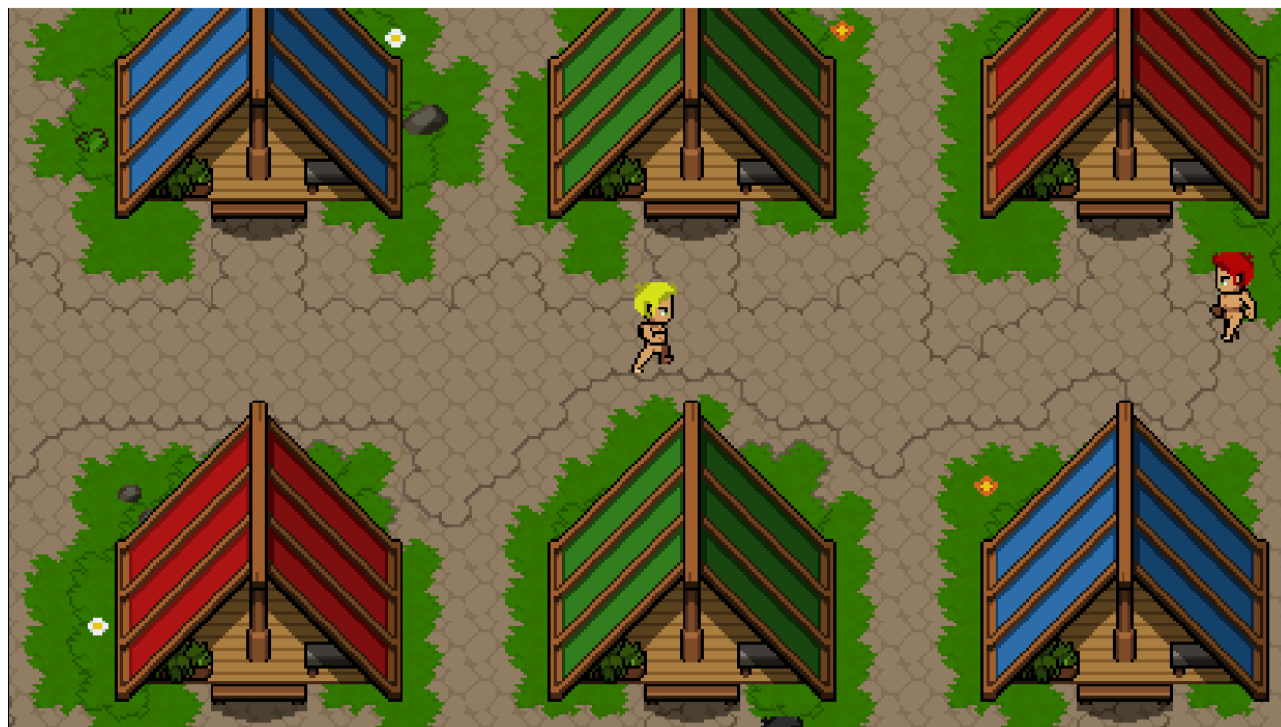
6. Screenshots & Demonstrations

• **Include images, videos, or code snippets showcasing individual contributions**

🗡️⊕🎨🛡️🪃🔥🧪🔥➕🩸

Combat icons

Combat of The Record of Lies: Crown's Formation

Character animations of The Record of Lies: Crown's Formation

7. Next Steps

• Plans for the next assignment

Medium and big definitive visual assets, more game code features.

• What improvements will be made based on personal reflections

Having more time due to the stress of other assignments and tasks ahead of the project.

8. Final Thoughts

• Overall experience in this assignment

It was a funny and entertaining experience but mostly a learning and interesting one.

• Reflections on teamwork and individual progress

Solid team structure, everyone has done really effectively their own part and each member had a high motivation and passion about the project. The communication was excellent, and all of the team members were open-minded to hear and consider other members' ideas.