FIT3077

Sprint One

MA_Tuesday08am_Team123

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Team Information

1. Project Summary

This project involves developing a game 'Fiery Dragons'. The game needs to adhere to proper software development practices and object-oriented design principles.

At the onset of development, our focus lies on the implementation of the core functionalities essential to the Fiery Dragons gaming experience. This involves crafting a robust framework that enables two to four players to engage in gameplay within a unified client instance. Paramount to our efforts is the meticulous alignment of the game mechanics with the standard rules, ensuring a cohesive and immersive gameplay experience for all participants.

This report comprehensively covers various aspects of our project, including the technology stack to be used, the user stories, the domain model, and the low-fidelity (low-fi) prototype design.

2. Professional Team Name and Professional Team Photo

Team Name:

Team Photo:

3. Team Members Information

Member 1
Name: Maliha Tariq
Student ID: 33473692
Email address: mtar0012@student.monash.edu
Technical Strengths: Java, Python and CSS
Fun Fact:

Member 2
Name: Loo Li Shen
Student ID: 32619685
Email address: lloo0011@student.monash.edu
Technical Strengths: Java, Python
Fun Fact:

Member 3
Name: Khor Jia Wynn

Student ID: 33033919
Email address: jkho0044@student.monash.edu
Technical Strengths: Java, Python
Fun Fact:

Member 4
Name:
Student ID:
Email address:
Technical Strengths:
Fun Fact:

4. Team Schedule

5. Technology Stack and Justification

In this section, we will justify our choices
We have decided to utilize Java with the Swing library for developing the Fiery Dragons game client. This decision is driven by several factors aligning with the team's current expertise and the requirements of the project. Java is a widely used and platform-independent programming language, making it suitable for creating cross-platform applications. Swing, being a part of the Java Foundation Classes (JFC), provides a rich set of GUI components for building interactive user interfaces. Leveraging Swing allows us to create a visually appealing and responsive game client that can seamlessly run on various operating systems without additional dependencies.

Moreover, Java's object-oriented nature resonates well with the project's requirement to adhere to proper software development practices and object-oriented principles. This familiarity with object-oriented design makes it easier for the team to structure the codebase efficiently, ensuring maintainability and scalability of the application. Additionally, Java's strong typing system and extensive documentation further support our development process, enabling smoother debugging and troubleshooting.

While Python with Pygame offers similar advantages, such as ease of use and quick prototyping, the team's stronger proficiency in Java and Swing, along with the robustness of Java for larger-scale applications, ultimately influenced our decision. Although there might be a learning curve associated with Swing for some team members, the comprehensive support available through documentation and online resources mitigates any potential challenges. Overall, the choice of Java with Swing aligns well with the project's objectives, team expertise, and the need for a reliable, cross-platform game client for the Fiery Dragons board game.
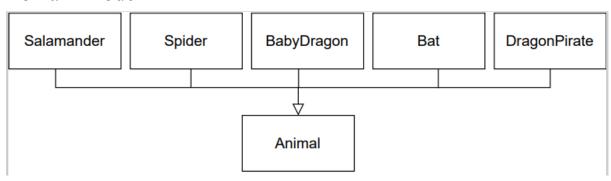
User Stories

1. As a game designer, I want to enforce a rule that prevents players from using the same chit card more than once during their turn, ensuring all players adhere to fair play standards.

2. As a game designer, I want the game to stop a player from moving its token when the token tries to gain a position that is already occupied by another player's token.

3. As a game designer, I want to expel players who try to violate regulations more than 3 times.

4. As an admin, I want to move the players' tokens backward to the same expected position as other users and flipping the chit cards that misaligned the card that the token settles.

5. As an admin, I want to reset players' tokens and chit cards to their correct positions if discrepancies occur, maintaining order and consistency in the game environment.

6. As a player, I want a unique coloured animal to differentiate my game character from others.

7. As a player, I want to be able to select chit cards where the animal depicted matches the animal in my current position on the game board so that I can strategically move forward in the game.

8. As a player, I want my game to start with my token placed at the cave, allowing me to plan and execute strategic moves to navigate back to the cave, thus fulfilling the game's primary objective.

9. As a game designer, I want to shuffle the uncut segments cut segments as long as the cut and uncut segment

10. As a player, I want to be able to shuffle the deck and place them down in the centre.

11. As a player, I want to be able to reveal another chit card after a successful move to potentially move again.

12. As a player, I want my turn to end if the revealed chit card shows a different animal than my current space.

13. As a game designer, I want to check if a player reaches their cave with an exact number of moves so that I can end the round and declare the winner.

14. As a game designer, I want to track whether a square contains a dragon so that I can prevent other dragons from occupying the same square.

15. As a game designer, I want to cover up all the dragon cards that were flipped at the end of a player's turn, to implement the memory component of the game.

16. As a game designer, I want to implement the dragon pirate card to give the player the option of moving backwards.

17. As a game designer, I want to incorporate a feature that allows the player to choose different board configurations, enhancing the replayability of the game.

18. As an admin, I want to provide clear guidelines for the game rules to ensure a fair and enjoyable experience for all the players.

19. As a solo player, I want the option to play with a dummy player controlled by the game that follows the rules of the game

20. As a parent, I want the game to offer educational benefits, such as memory skills and decision-making, for my child.

21. As a player, I want the game to last around 15 minutes so that it's quick and enjoyable for casual play.

22. As a player, I want to celebrate and congratulate the winner of the game, whether it's myself or another player, to acknowledge their achievement.

23. As a player, I want to have different game modes/versions of the game. For example, like in Monopoly where a specific location can grant you cards which gives your character effects whether it be good or bad.

Domain Model

Basic UI Design