



# Dragons & Wizards

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## Change Log

Date	Old Design	New Design	Reason
08/03/2024	Buttons - The buttons are ellipses with text.	Buttons - The buttons have frames around the ellipses.	The buttons did not visually stand out enough.
08/03/2024	Font in UI - Inspiration.	Font change - Italianno.	Through feedback forms it was found that many people found the font hard to read.
08/03/2024	Font colour change - assorted colours throughout the UI.	Font colour change - Only black or white is now used.	Through feedback forms the colours of the text was hard to visualise.
08/03/2024	Colour change - sliders in the Audio section are red, green, and blue.	Colour change - sliders in the audio section changed to white background with a red fill.	The assorted colours in the section did not look in line with the standard black/white fonts.
10/04/2024	Background change - Shop screen standard UI dragon background.	Background change - Shop changed to Wizards shop image.	The shop is as much part of the game as part of the UI and needed to be more immersive.
10/04/2024	Background change - Deck Management screen standard UI dragon background.	Background change - Deck Management screen changed to a fantasy Barracks image.	This screen is as much part of the game as part of the UI and needed to be more immersive.
19/04/2024	Background change - Purchase Coins screen standard UI dragon background.	Background change - Purchase Coins screen changed to fantasy bank image.	This screen is as much part of the game as part of the UI and needed to be more immersive.
19/04/2024	Background change - Shop main screen standard UI dragon background.	Background change - Shop main screen changed to a fantasy street image.	This screen was changed as switching from deck management to buy card screen disrupted immersiveness.
26/04/2024	UI has no help to use the deck management portion of the game.	A help section has been added, to aid players in creating their own decks.	Feedback shows there is confusion on deck working, instructions added.
27/04/2024	Background change - help section screen standard UI dragon background.	Background Change - help section screen now a fantasy library.	To keep with the immersiveness of the deck building side, the library was added.
27/04/2024	Asset change - Text boxes showing the	Asset change - Library books with the help	The Text section was changed to keep in

	help sections.	title on the front cover. When hovered over, a parchment appears with the relevant information.	line with the immersiveness.
27/04/2024	Asset Change - The help scrolls appeared on screen.	Asset change - The help scrolls float across the screen.	To improve the immersiveness and create a magical feel to the help section.

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# 1. Product overview

## 1.1 Concept and Theme:

**Dragons and Wizards** is set in the mystical realm of **Sadratein**, a world torn apart by conflict among four powerful factions: **Air**, **Earth**, **Fire**, and **Water**. Each faction boasts formidable **Wizards**, **Warriors**, **Healers**, and **Beasts**, all serving the bidding of ruling monarchs in an epic struggle for supremacy.

Players align themselves with one of these elemental factions, leveraging their unique strengths and abilities to construct strategic decks, in the hope of defeating their enemies.

## 1.2 Gameplay:

**Dragons and Wizards** is an immersive multiplayer competitive Trading Card Game (TCG), each player starts with a deck of forty cards, drawing five from this deck at the start of the game. Resources are found in the form of 'Mana' and are used to play cards and activate their unique abilities. Players have access to 'Creature' cards and 'Spell cards'. New cards can be added to your deck through purchasing them or creating them in the game.

The core gameplay's objectives are to reduce your opponent's life point to zero using your heroes and creatures.

### 1.2.1 Artwork and visuals

Lettering in the UI will be Italianno font throughout, using the regular style and an outlined version. Due to the artwork used within the user interface (UI), plain white or black font colour is used to ensure that the players can see the game information more readily. The fantasy world of Sadratein is reflected in the game's art style, the artwork will be drawn to an exceptional standard showing the rich, and imaginative scenes brought to life in fantasy novels, such as the *Forgotten Realms* series of books that are used within the *Dungeons and Dragons* settings.

## 1.3 Game Mechanics

### 1.3.1 Card Types:

Hero cards: powerful units that hold unique abilities and can aid or attack players.

Creature cards: ordinary fighting cards, for example warrior, cleric, rogue, dogs. They have different strengths depending on their iterations.

- Legendary
- Epic
- Rare
- Common
- Basic

Spells cards: provide instant or ongoing effects that impact the battle.

Mana: generates one point for every turn, which is the required energy to play the cards and activate the special abilities. This can be increased by obtaining certain spell cards.

### 1.4 Deck Building:

The player constructs decks of ten cards, and cannot choose the same type more than twice. New cards can be bought with gold obtained from the shop. They come in packs of five and are automatically added to the cards available to make a new deck.

Gold and dust can be purchased through the in-game store, which will allow you to build your deck.

Extra cards that you own but do not require, can be 'disenchanted' for dust, by right clicking on your mouse, which brings up the disenchant menu, shown in fig. 2.

New cards can also be constructed by 'disenchinting' duplicate cards to collect the dust.

This dust can then be used to create a new card, the rarer the card type, the more dust the card costs to make.



Figure 1. Deck creating.



Figure 2. Disenchinting a card

### 1.5 Factions

These are the four factions that are fighting for control of the realms:

Air (Onus): an agile, strategic people who use wind manipulation and aerial combat.

Earth (Gnutra): born from the stone in the very Earth, they are sturdy and defensive.

Fire (Poirus): the most aggressive of the factions, destructive and war like. They use powerful spells and fiery daemons to aid their conquest.

Water (Akoria): peaceful water folk that heals the world. They use illusions, curative and elemental magic to distract their enemies.

## 1.6 Basic Statistics

Each match consists of both a random battle location and a random musical score. There are thirty cards per deck and each player starts with thirty life points. At the start of the game each player is dealt five cards from their deck.

Each turn, one card is drawn for the player and their mana points increase by one. There are special cards that allow extra mana or additional cards to be allocated to the player.

## 1.7 Turn Structure:

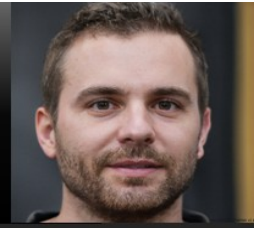
To play, you choose a card from your deck, to attack either the opponent or the opponent's cards. Heroes and creatures attack/block each other, with the player taking the resolved damage.

Some cards have abilities that can be activated to aid your campaign or hinder your opponents.

The turn ends by either the timer running down or clicking on the 'End Turn' button. The game ends when a player's health reaches zero.

## 2. User Persona

# Jim, the competitive strategist



- Name: Jim
- Age: 35
- Location: Manchester
- Occupation: Marketing Manager
- Salary: £45,000
- Family: Married with two children
- Education: University Degree

### Motivations

Jim enjoys short fast paced strategy games that he can fit into his busy schedule, to help relieve the pressures of the daily routines in his job. Due to his available time, he generally plays on mobile devices.

He prefers to play against his friends or other people online, as he is competitive and likes the social interactions, but he will play against the games AI if time is short.

Jim is drawn to interesting card abilities that offer extra strategic advantages and will often buy premium features in a game to get the extra advantage over his fellow player.

### What a game should have

- Competitive ranking structure
- Social interaction (inc. chat functions)
- Strategic gameplay but not overwhelming complexity
- High quality visuals

### What a game should not have

- Over complex gameplay
- Complicated interface
- Unfair gameplay (i.e. bad matching system)
- Boring or unimaginative lore attached to the game

“I like a game that I can play whenever I have a break in my day. I like to compete against real people in real time and chat to them when I’m playing. “

“I prefer the type of games that have an extra strategic play that can turn the game quickly. I will also pay to get that extra special card that is on the store, as long as it’s not too expensive.”

### 3. Flow Diagram

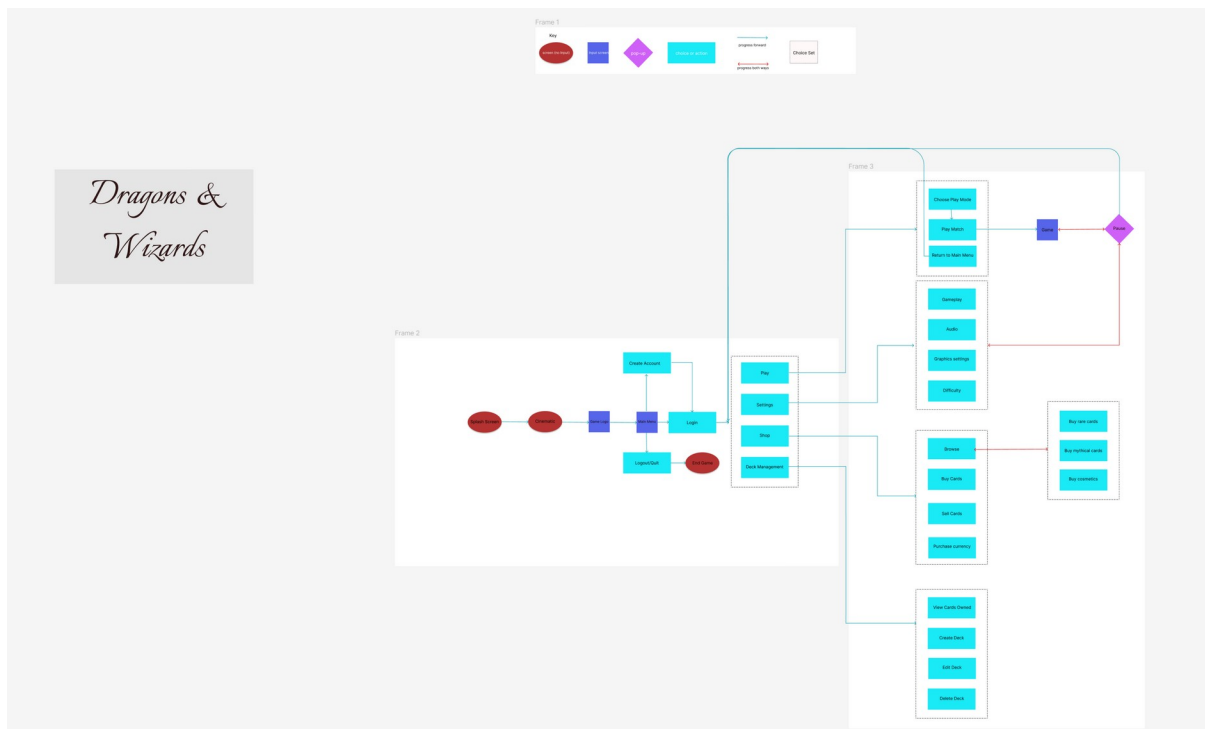


Figure 3. Figma flow diagram and wireframe

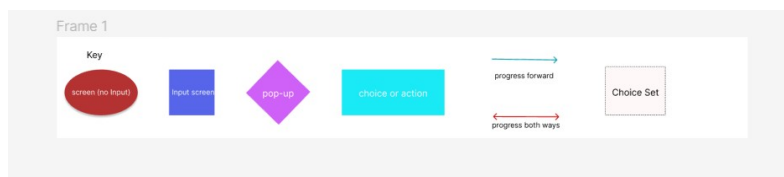


Figure 4. Key

The initial design phase of the project took place in Figma. Fig. 3 shows the wireframe design and how the various screens of the UI would interact with each other. Fig. 4 provides the key to this design. Fig. 5 and 6 show step by step each screen and their interactions with each other.

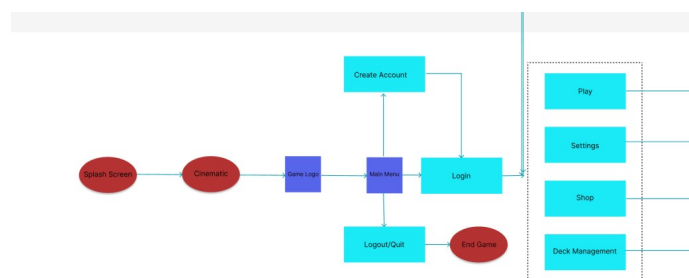


Figure 5. UI concept pt. 1

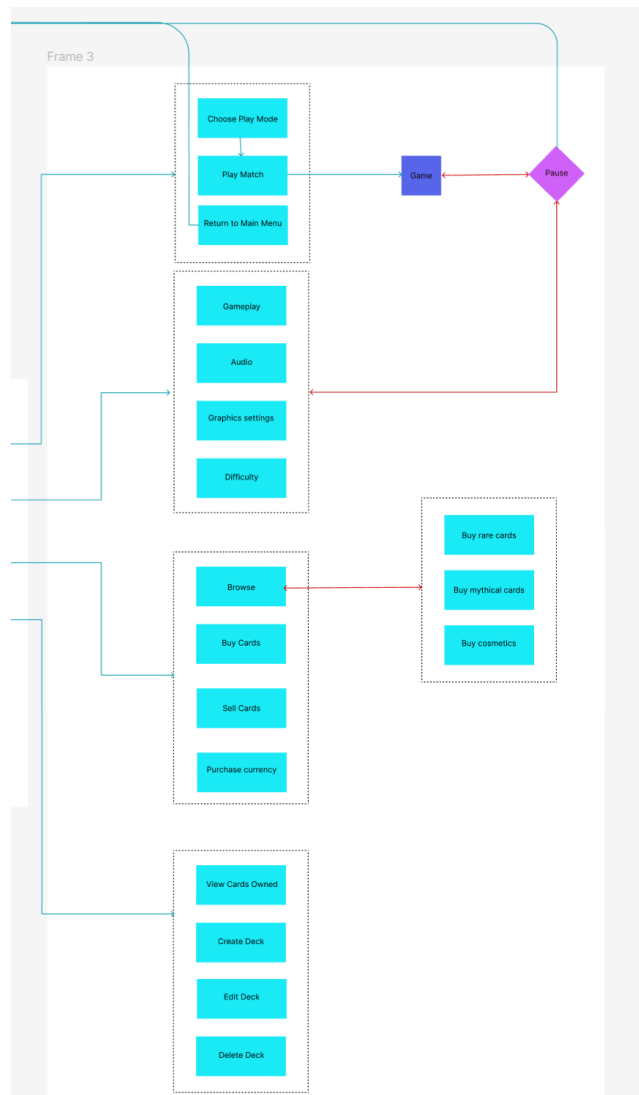


Figure 6. UI concept pt. 2

From here the design took on the appearance of what the UI would look like in the project. Fig 7 shows what the first few sections look like in the design phase. Fig.8 shows the same sections within the prototype stage, highlighting the connections each screen has with one another.

The Figma Files can be found here:

<https://www.figma.com/file/uFfioZfoIN1BhKzQS4Lvbj/Card-Game-Diagram?type=design&node-id=0%3A1&mode=design&t=QIOEr7jEFX0cGL2f-1>

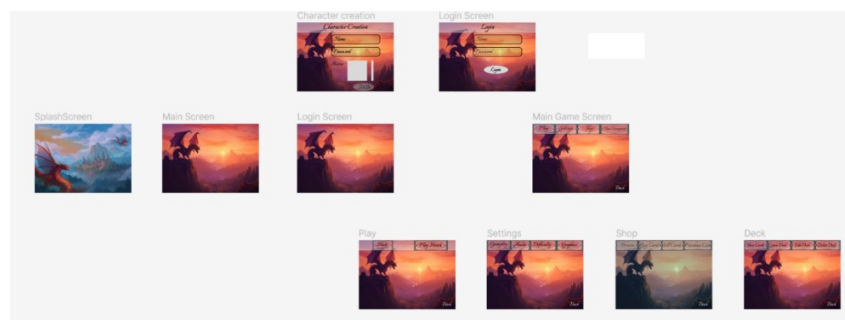


Figure 7. Example of design

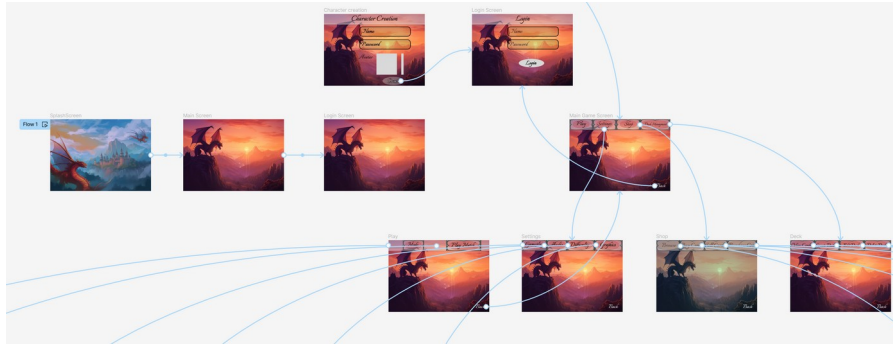


Figure 8. Example of prototype

The Figma prototype can be found here:

<https://www.figma.com/proto/uFfioZfoIN1BhKzQS4Lvbj/Card-Game-Diagram?node-id=119-57&t=1Hc9tR2IDylusVfZ-1&scaling=min-zoom&page-id=0%3A1&starting-point-node-id=20%3A5>

## 4. Front End User Interface for Dragons & Wizards

Game starts with a splash screen showing dragons flying over a castle, this is replaced by an image of a dragon looking out over a valley at sunset. The title appears in an animation and is then replaced by the option to login or create a new character. The following are the interactive screens within the UI. Pressing 'Escape' at any time in the menu section will quit the game.

### 4.1 Create Character (Set on Main Screen image)

This contains a name and password interface to create a new account. Also, there is the choice to choose your avatar for the game using a left and right arrow button.



Figure 9. Create Character

### 4.2 Login Screen (Set on Main Screen image)

#### 4.2.1 Game login

This has a name and password interface to login to the game, providing an account has been created.

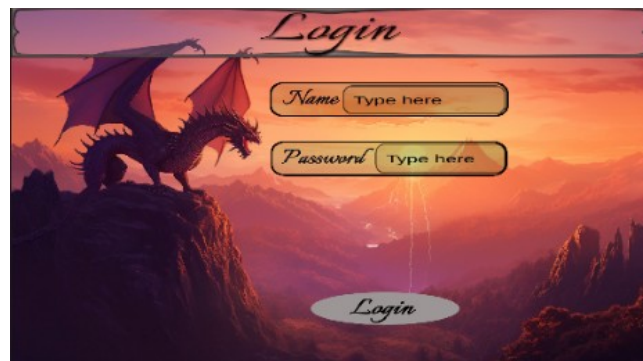


Figure 10. Login Screen

## 4.2.2 Facebook login

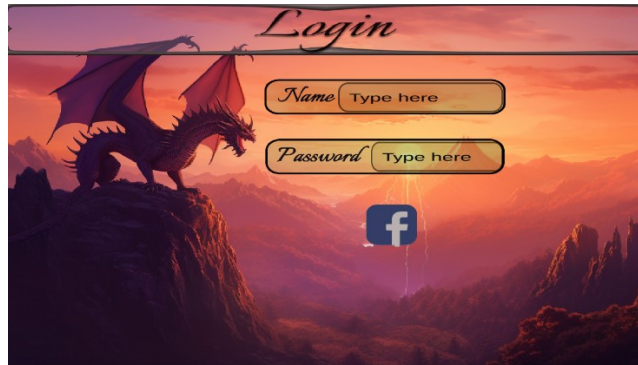


Figure 11. Facebook login screen

## 4.2.3 Instagram login

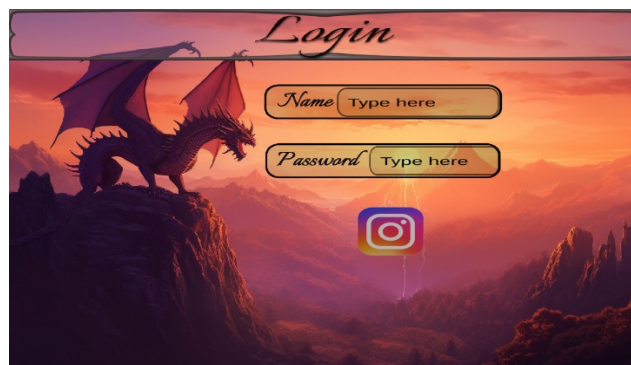


Figure 12. Instagram login screen

## 4.3 Main Menu (Set on Main Screen image)

### 4.3.1 Play

Start a new game.

### 4.3.2 Settings

Adjusts the settings of the game.

### 4.3.3 Shop

Buy, create, purchase gold/dust.

### 4.3.4 Deck Management

Build a new deck or change an existing deck.

### 4.3.5 Quit

Quits the application to the desktop.



Figure 13. Main Screen

## 4.4 Play Menu (Set on Main Screen image)

### 4.4.1 Mode

Choose from a tutorial game (computer vs computer), a two-player game (player vs player) or a single player (player vs computer).

### 4.4.2 Lobby

Enter the online servers to find an opponent.

### 4.4.3 Back

Returns to Main Menu



Figure 14. Play screen.

## 4.5 Settings (Set on Main Screen image)

### 4.5.1 Gameplay

Changes the quality of the graphics from performance mode through to high quality graphics.

### 4.5.2 Audio

Changes the volume of the music or SFX.

### 4.5.3 Difficulty

Chooses difficulty level of AI matches, from Novice (easy) to Wizard (hard).

## 4.5.4 Graphics

Changes screen options from full Screen/bordered. VSync on or off and chooses the screen resolution of the game.

## 4.5.5 Back

Returns to Main Menu



Figure 15. Settings main screen

## 4.6 Shop (Set on Street image fig.16)

### 4.6.1 Buy Cards (Set on Wizards Shop image fig.18)

Takes you into the shop to buy new cards in sets of five.

### 4.6.2 Create Deck (Set on Barracks image fig.19)

Takes you into the 'create' section of the deck management, which allows you to create a new deck, from all the cards currently available to you.

### 4.6.3 Edit Deck (Set on Barracks image fig.19)

Takes you into the 'edit' section of the deck management, which allows you to edit your current available decks.

### 4.6.4 Purchase Coins (Set on Bank image fig.17)

This section allows you to purchase in game gold and dust with real world money, so that you can build your decks, as fast as you would like.

### 4.6.5 Back

Returns to Main Menu



Figure 16. Street scene



Figure 17. Inside the bank



Figure 18. Inside the shop (buy cards tab)

## 4.7 Deck Management (Set on Barracks image fig.19)

### 4.7.1 Library (Set on Library image fig.20/21)

A help section to guide you along the way of building your decks.

### 4.7.2 Create Deck (Set on Barracks image fig.19)

Takes you in to the 'create' section of the deck management, which allows you to create a new deck, from all the cards currently available to you.

### 4.7.3 Edit Deck (Set on Barracks image fig.19)

Takes you in the 'edit' section of the deck management, which allows you to edit your current available decks.

### 4.7.4 Back

Returns to Main Menu.



Figure 19. Barracks



Figure 20. Inside the library



Figure 21. Getting help in the library

## 4.8 Pause Menu (in-game only, canvas appears over the top of game)

### 4.8.1 Resume

Restarts the game.

### 4.8.2 Options

Change volume and screen options.

### 4.8.3 Main Menu

Quits the current game and returns you to the main menu.

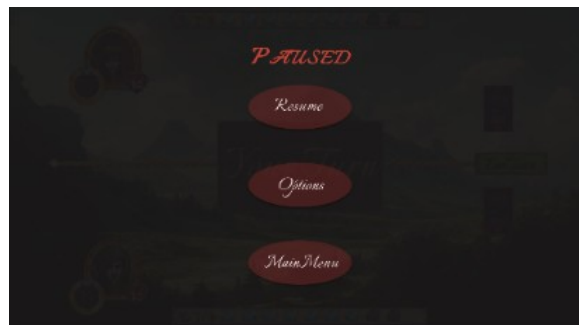


Figure 22. Pause menu.

## 5. User Testing Methodology

The testing methodology for this card game will be an unmoderated, remote approach with exploratory segments within the questionnaire.

The unmoderated strategy is being adopted due to time and financial constraints, using this method the testing phases can reach a broader audience than within the confines of the university.

Where feasible, a direct observational approach will be implemented to assess the non-verbal actions of the participants, such as facial expressions and body language. Whilst this method can provide useful feedback, due to reactions being recorded in real time and any questions being answered quickly; this can also have an influence on the results, due to participants behaving differently. This is known as the 'Hawthorne Effect', named after a study at the Hawthorne Works factory, where researchers found that workers became more productive when they realised they were being observed.

The exploratory aspect of some questions in the feedback allows the testers to express their opinions outside of the set questions provided. This enables the designer to have an insight into how the features may be perceived and improved.

Once the feedback has been received, an analysis must be conducted. Any issues should be prioritised, based on criticality and impact before implementing any changes into the project.

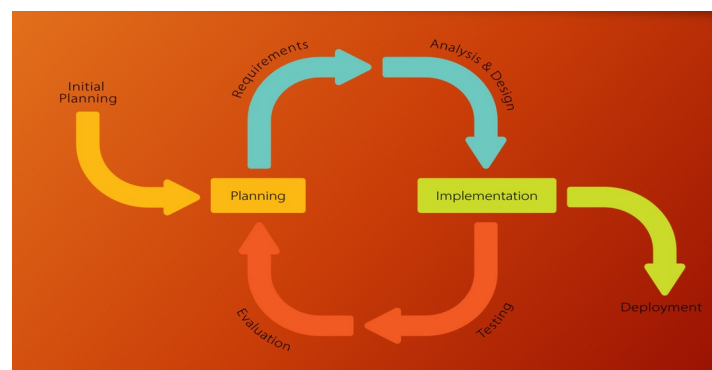


Figure 23. Iterative design process

A remote testing strategy was implemented for the majority of the development phase, with a small number being conducted in person. This enabled follow up questions to be asked, ascertaining which direction the project should go. The testing was conducted in three stages.

The first playtest took place in March, shortly after the start of the project. The feedback form consisted of four linear scale questions and two open ended questions.

How easy is the UI to navigate? \*

1 2 3 4 5

Easy      Difficult

---

How easy was the visuals to the eye? \*

1 2 3 4 5

Easy to look at      Hard to look at

---

Are the colours appropriate for the UI? \*

1 2 3 4 5

Good      Bad

---

Are the fonts easy to read and appropriate for this style of game? \*

1 2 3 4 5

Good      Bad

Figure 24. Linear Scale questions

How would you describe the visual aspects of the UI? \*

Your answer \_\_\_\_\_

Figure 25. Open-ended question (1)

What improvements/features do you think could be improved/added to the UI set-up? \*

Your answer \_\_\_\_\_

Figure 26. Open-ended question (2)

## 6. Results and Analysis of User Testing

### 6.1 Playtest one.

The first playtest had six participants and their responses to the test, were in most cases spread out evenly over the choice of answers.

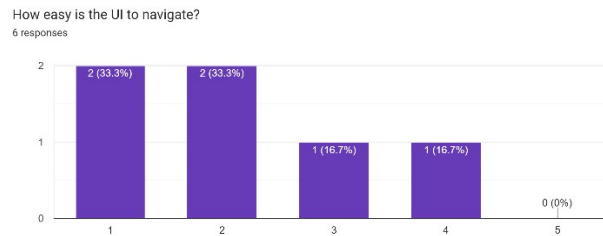


Figure 27. Linear question 1

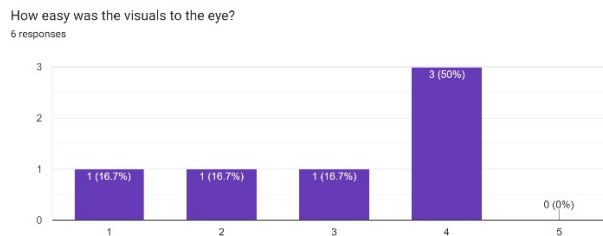


Figure 28. Linear question 2

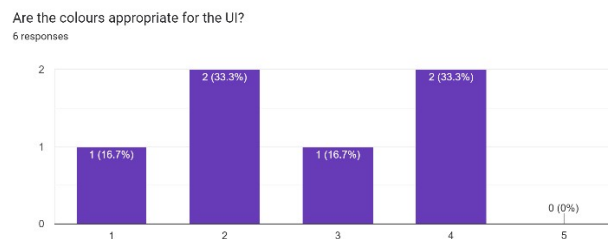


Figure 29. Linear question 3

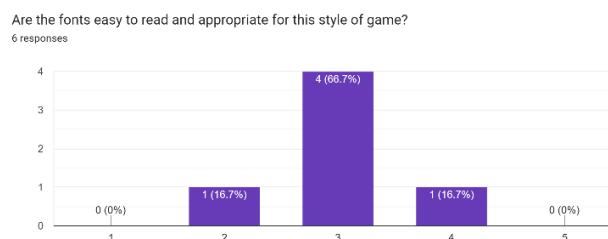


Figure 30. Linear question 4



Figure 31. Open Ended question (1)

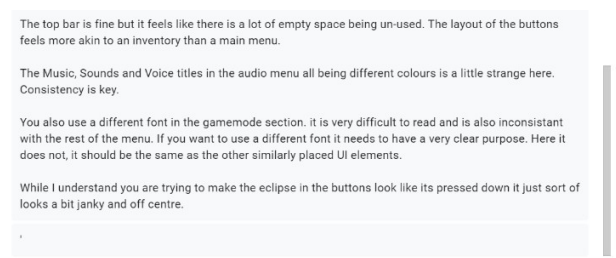


Figure 32. Open Ended question (2)

### 6.1.1 Analysis

**Initial feedback:** In figure 27, 28 and 29 the results showed an even spread over the range of answers. Whilst figure 30 skewed away from the positive and stayed middle of the road. The open-ended comments in figures 31 and 32 showed that testers reported the font style, size, and colour were difficult to read. Also, the ellipse shaped buttons blended closely with the background. All impacting the experience.

**Adjustments:** The font system has been completely overhauled and the menu buttons now have distinctive frames that separate them from their backgrounds.

**Documentation:** These changes have been recorded in the change log, showing the iterative design process.

## 6.2 Playtest two.

The second playtest had five participants and their results yielded a more positive trajectory for the project. An extra question was added at the beginning, to ascertain if they had been involved in earlier playtests.

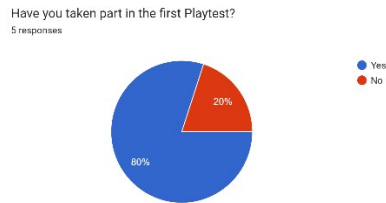


Figure 33. Pie chart response.

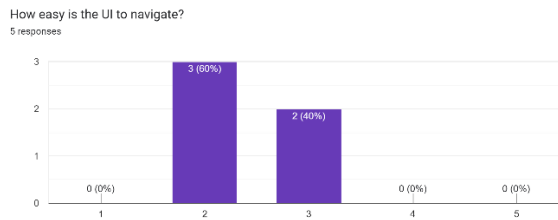


Figure 34. Linear question 1

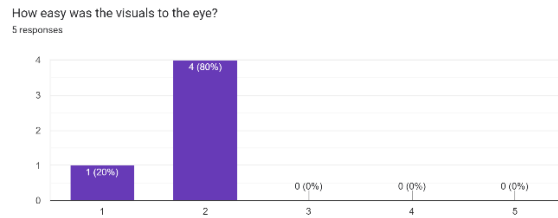


Figure 35. Linear question 2

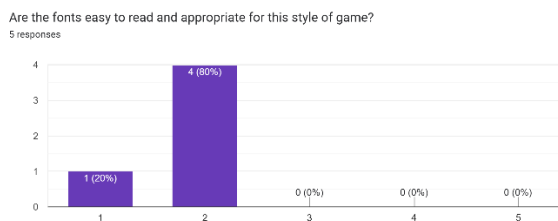


Figure 36. Linear question 3

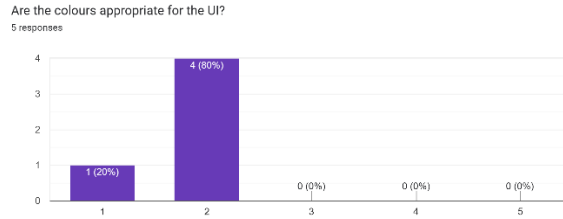


Figure 37. Linear question 4

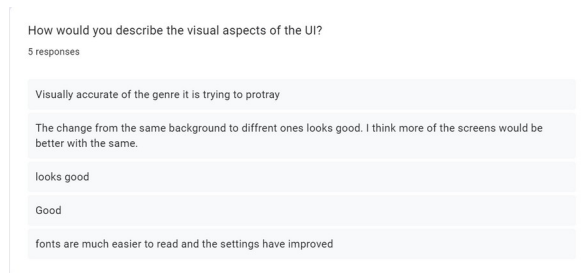


Figure 38. Open Ended question 1

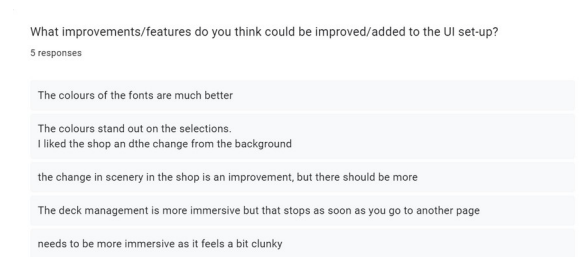


Figure 39. Open Ended question 2

### 6.2.1 Analysis

Initial feedback: Figure 33 showed that all but one person had been involved with the initial playtest. In figures 34 through to 37, the results indicated a shift to a more positive take on the UI. The open-ended comments in figures 38 and 39 show that testers reported the font style, size, and colour was an improvement over the previous. The background change on the deck management screen was a positive result in the feedback, however it was noted that the immersiveness stopped when moving to a different page. (This change to the deck management screen and shop was completed before the second playtest, to make the feel of the game more immersive.)

Adjustments: The backgrounds of all the sections that were deemed part of the game, as well as the UI, were changed to add more depth to the experience.

Documentation: These changes have been recorded in the change log, showing the iterative design process.

### 6.3 Playtest three.

This final testing phase had four previous testers and two new ones. This brings an aspect of seeing what a player might think of the UI, who has not been involved in any previous iterations.

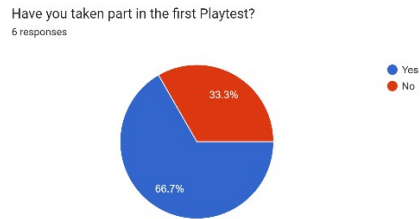


Figure 40. Pie chart response.

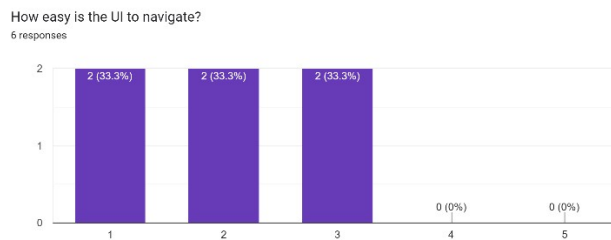


Figure 41. Linear question 1

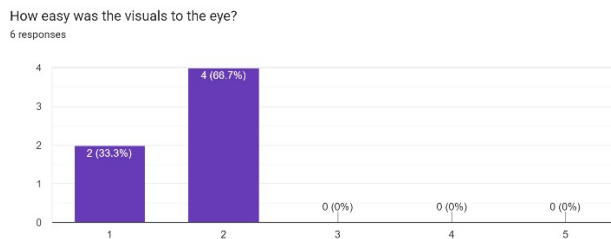


Figure 42. Linear question 2

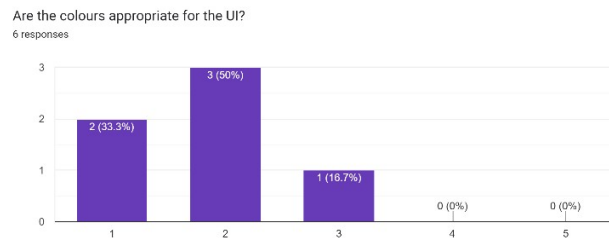


Figure 43. Linear question 3

Are the fonts easy to read and appropriate for this style of game?  
6 responses

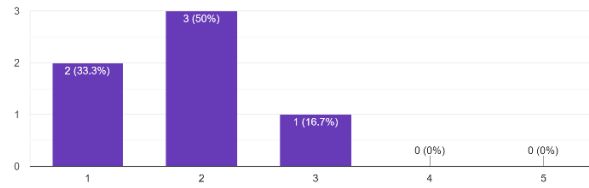


Figure 44. Linear question 4

How would you describe the visual aspects of the UI?  
6 responses

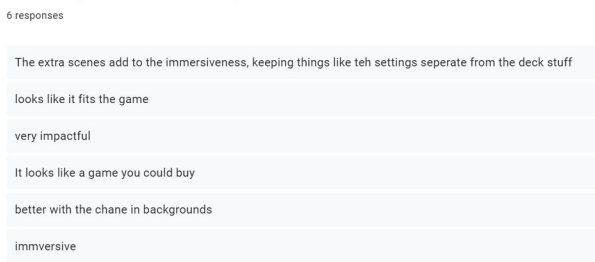


Figure 45. Open ended question 1

What improvements/features do you think could be improved/added to the UI set-up?  
6 responses

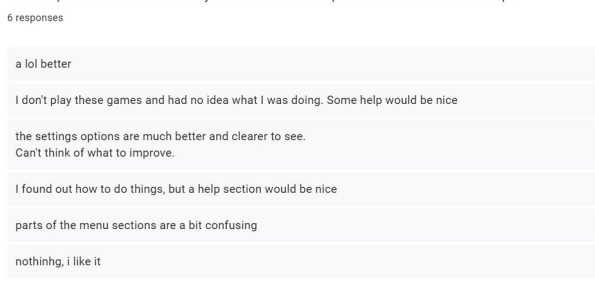


Figure 46. Open ended question 2

### 6.3.1 Analysis

Initial feedback: Figure 40 showed that four people had been involved in the initial playtest. In figure 41 through to 44 the results still indicated a positive take on the UI, however there was a shift to the middle ground, potentially by fresh players. The open-ended comments in figures 45 and 46 showed that testers reported that the UI was better than the previous iteration, but the now implemented part of the deck management section was confusing.

Also, it is possible, from the comments made, that the fresh players evaluating the game were not knowledgeable in the card game genre.

Adjustments: A help section was implemented in the deck management section of the game in the form of a library. This would alleviate any difficulties from inexperienced or new players.

Documentation: These changes have been recorded in the change log, showing the iterative design process.

## 7. Social Media

The rise of social media within the last decade, opened avenues for development companies being able to market their game through this medium. Many of these social media platforms also allow accounts to be linked to the game, or even to create a new game account by using the social media platforms login details. This allows users to quickly create new accounts effortlessly, whilst gaining visibility for both the developers and the social media site. There is also a certain amount of security that is afforded by logging in this way, as many people trust the social media sites to be secure and are more comfortable using their details.

There are three ways to login/create an account. As this game is aimed toward an audience as described in the User Persona section, it uses the most common social media platforms for that demographic.

### 7.1 In game

The first way is by using the in-game method, through the menu system.

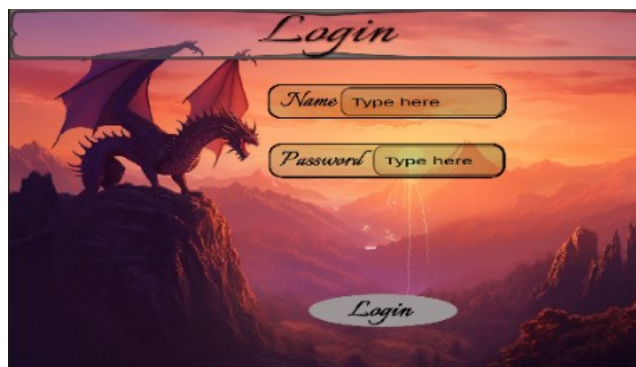


Figure 47. In-game login method

### 7.2 Facebook

The second way is by using a Facebook account.

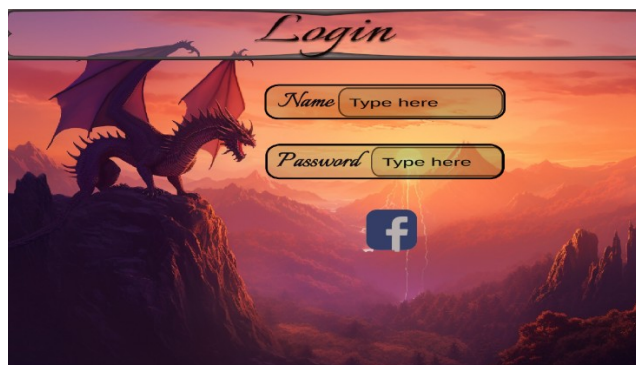


Figure 48. Facebook login method

## 7.3 Instagram

The third way is through an Instagram account.

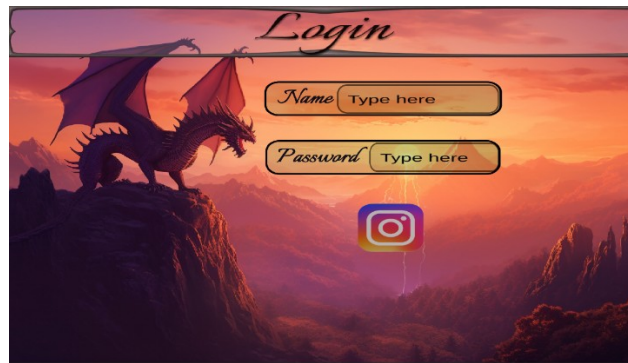


Figure 49. Instagram login method

More methods of accessing the game can be added later if the game expands beyond the scope of the intended demographic.

## 8. References

### 8.1 Atomic Design Principles

<https://bootcamp.uxdesign.cc/atomic-design-6138ea9692fc>

<https://bradfrost.com/blog/post/extending-atomic-design/>

### 8.2 GDD UI Design

<https://www.youtube.com/watch?v=kjbxmJCh0&t=639s>

[https://www.youtube.com/watch?v=x4G8UNIE560&list=PL\\_Gs5A2r-OfISwyjoE4SXLf8PNylbWm5G](https://www.youtube.com/watch?v=x4G8UNIE560&list=PL_Gs5A2r-OfISwyjoE4SXLf8PNylbWm5G)

[https://www.youtube.com/watch?v=Bh\\_ZFB2jwOo&list=PL\\_Gs5A2r-OfISwyjoE4SXLf8PNylbWm5G&index=2](https://www.youtube.com/watch?v=Bh_ZFB2jwOo&list=PL_Gs5A2r-OfISwyjoE4SXLf8PNylbWm5G&index=2)

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### 8.3 UI/UX Design

<https://careerfoundry.com/en/blog/ux-design/the-difference-between-ux-and-ui-design-a-laymans-guide/>

<https://www.simplypsychology.org/hawthorne-effect.html>

### 8.4 Figma UI Design

[https://www.youtube.com/watch?v=c9Wg6Cb\\_YIU&t=2140s](https://www.youtube.com/watch?v=c9Wg6Cb_YIU&t=2140s)

### 8.5 Artwork

<https://stock.adobe.com/uk/> - game artwork and acknowledgements in assets folder in the project.