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# DES310 Professional Project

Blackdog Games / 1904017 / Joseph Mackle

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# Sprint 1 - Project Pitch



# Production

As I am both the teams Producer and Team lead, I will be communicating with the Client, SillyWeeFilms.

In the first sprint I began by setting up the Jira, Jira is a “proprietary issue tracking product”. It was heavily recommended by our tutors/mentors to use for this project.

Our mentor suggested we have meetings every Tuesday with them to review the teams progress and if any issues had occurred during the week.

We had a client introduction meeting on the 1st of February, it went pretty well and our Client seems pretty happy with us.

*I have used Trello a lot in the past and I found out that “Atlassian” bought Trello in 2017, I could immediately see some similarities, such as the “board”. A method used for tracking tickets that get added to the roadmap and can be assigned to individuals.*

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## Jira Creation

Setting up the Jira was simple enough, I went with the “Agile” methodology as this is what best applies to this project. Agile is a workflow for teams that allows for constant iteration and each deliverable builds upon the last. Alongside Agile, we have the Scrum framework, this is what each sprint is. For us each sprint last 2 weeks.

I invited all of the team members to the Jira page, just like myself it was a first time experience for all of us.

For Sprint 1, I created an Epic called “Team Pitch” as this is the overarching goal of the sprint. I added in stories to the epic and assigned them to the sprint.

To help keep track of progress, I integrated GitHub into Jira so when commits are made if they include the provided Jira task number it will link them together.

# Project Roadmap

As seen here, the proposed project roadmap by our tutors.

With this in mind, the goal of sprint one is to get our Pitch in place for our Client.

The initial project plan can be seen on the next slide.

## Project Roadmap (Milestones)







## Documentation

To get an early start on documentation, I created the GDD, TDD and ADD outlines. I used the provided wiki to do this. I discussed with the team that we would have the majority of the Documents filled out by the end of Sprint 3 which we will then finalise in the final sprint of the project before submission.

I created a “Master Meeting Notes” Document, this is a personal document to keep track of what each member did every week and any major events that may occur throughout development.



## Brief Breakdown

Our team received the “Origins of the Laoich” Brief, which asks for a Digital Card Game based upon the show of the same name.

It asks us to utilise the world the show has built and to showcase scottish monsters/legends/myths and heroes.

The Project is to be an expansion of the client's IP, they want this project to be part of their world to increase their fanbase.

*A fun thing about our team is we have little to no experience with cards games, I only played Hearthstone and Legends of Runeterra whenever I found out we had received this brief to help give me some insight.*



# Audience

The client wants the game targeted at Young Adults, specifically those with interest into fantasy, folklore and mythology as well as Scotland itself.

Thankfully, lots of card games already do this, not specifically Scottish Mythology but a lot of games have monsters, fantasy elements and lore behind them.

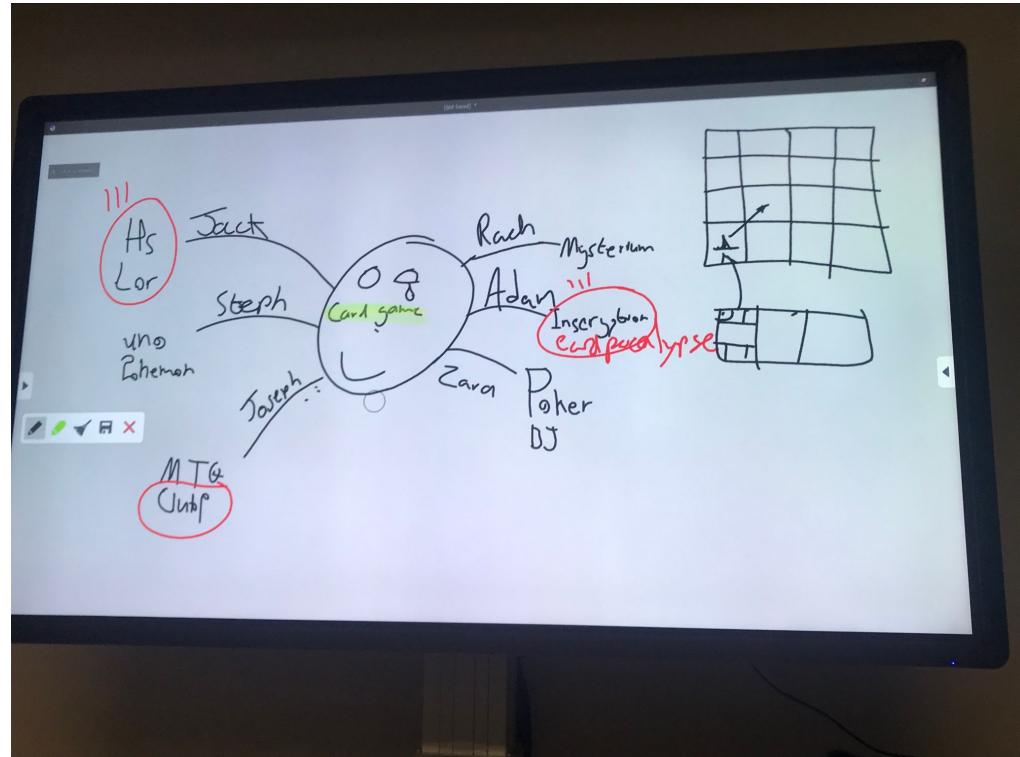
Hearthstone and Legends of Runeterra are 2 very big card-games that have this as well as many more that I am not too familiar with.

# Brainstorming

To begin, I did a group exercise where I asked each member to name a card-like game that they could think off and we put it on the board under their name.

The purpose of this exercise is to generate a list of potential inspiration games to send to our client as they never specified any themselves.

We then voted for games that would best fit what the client wanted (circled in red) and sent them off.



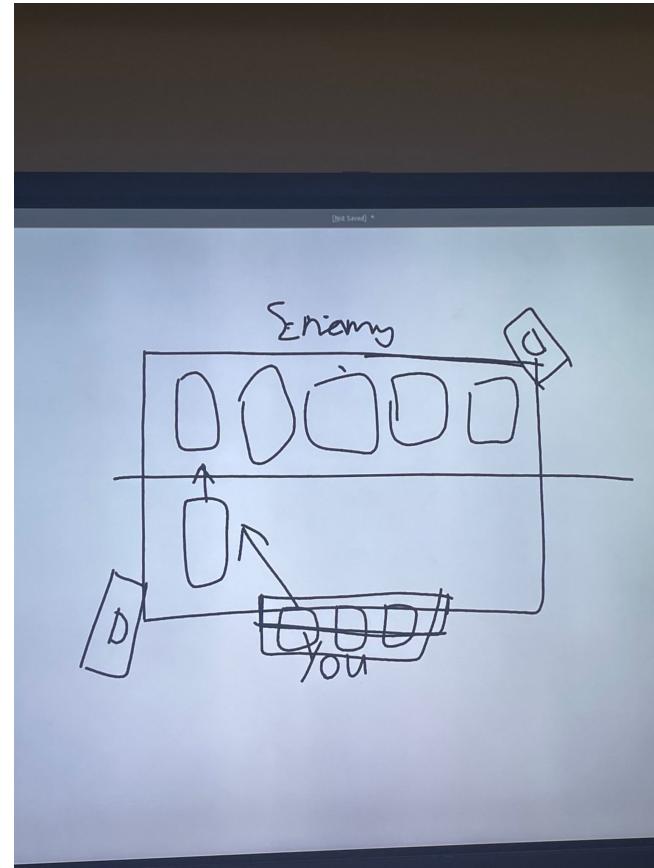
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# Brainstorming

A very quick and messy layout concept we did after discussing potential games.

It showcases an “Arena” where cards are played, a “Deck” represented with a “D” on each side of the “Arena”. At the bottom we see the players “Hand”, where they hold their cards drawn from their “Deck”.

This is basically how most card games function from experience.



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# Client Feedback

We had a couple of questions for the client.

1. Multiplayer or AI ->
2. Reference Games ->
3. Gameplay or Narration Focus ->
4. Art Style ->
5. Character and Monster Priority ->
6. Platform(s) ->

The client responded with:

1. He has happy with either or.
2. Hearthstone / Inscryption
3. Gameplay Focus
4. Stylized Art Style
5. Not every Character/Monster is needed
6. Mobile is preferred but whatever we are comfortable with.

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## Team Response

1. After discussing it with our programmers, they are happy and confident to pursue multiplayer.
2. The references games provided are expected, I myself have never played Inscryption so I will need to look into it.
3. Like the client, we agreed that Gameplay over Narration would be the direction to go.
4. Our artists were happy with the proposed Stylised Art Style.
5. Knowing that not every Character or Monster is required will help with future development as we can add whatever ones we see fit.
6. After discussing it with the team, we all agreed that our target platform would be Desktop (PC) as none of us had developed for mobile before.



# Hearthstone Player Base Research

Hearthstone released on Windows, macOS, March 11, 2014, iOS, April 16, 2014, Android, December 15, 2014 ([Wikipedia](#)).

It was an immediate success surpassing 20 Million players on its release year. It continued to grow each year after and surpassed 100 Million players in 2018, only 4 years after its release.

Hearthstone did take advantage of multiple platform releases which helped to increase their player base.

## Hearthstone Passes 20 Million Players, What Do You

### Want to See Next?

Surpassing the number of World of Warcraft players, Blizzard shows off exactly how popular its card game is becoming.

By [Justin Haywald](#) on September 15, 2014 at 6:37PM PDT

 34 Comments

### [20 Million Players](#)

## Hearthstone hits 70 million players, gives everyone three free packs to celebrate

By [Andy Chalk](#) published May 01, 2017

### [70 Million Players](#)

## Hearthstone now has 50 million players

*Ahead of new expansion launch*

By [Allegra Frank](#) | [@LegsFrank](#) | Apr 26, 2016, 3:00pm EDT

### [50 Million Players](#)

## Blizzard celebrates 100 million Hearthstone players with free card packs for everyone

By [Andy Chalk](#) published November 05, 2018

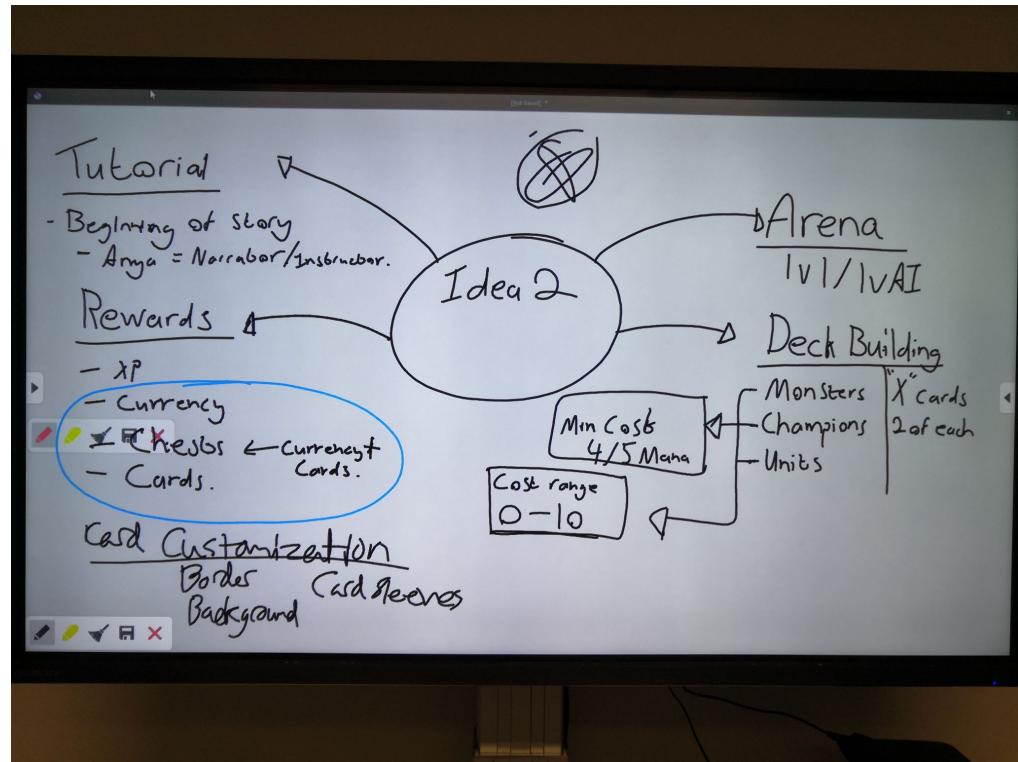
Hearthstone passed the impressive milestone earlier today.

### [100 Million Players](#)

# Brainstorming

Idea 2, is my concept for our game, again this is all based upon experience with card games in the past.

It showcases the “Arena”, “Deck Building”, “Rewards”, “Tutorial” and “Card Customization”.



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## Concept Development

During our brainstorming, I proposed “Idea 2”, for our pitch I took this concept further to bulk it out a bit more.

I concepted the Core Loop, Reward System, Deck Building System, Cards and Abilities.

I was inspired by Hearthstone, Legends of Runeterra and Inscryption for my concept.



# Concept Gameplay Overview

I condensed my concept into a bullet list for clarity. This overview showcases the key parts of the concept.

The following slides will go into more detail about specific sections.

## Digital Card Game Overview

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Title: Origins of The Laoich

Engine: Unity (Version: ?)

Platform: Microsoft Windows (PC)

Modes: Multiplayer

Genre: Digital Collectible Card Game

### Gameplay Overview:

- Players battle each other in a 1vs1 with the goal to reduce their opponents "Champion" to 0 Hit points.
- Multiple Characters and Monsters from the show are involved and playable as either "Champions" or "Units".
- Deck Building with "30" Cards per deck (including Champion Card and (optional) Sub-Champion Card)
  - "Champions" are the "commander" of the deck, with a playable card.
    - Each "Commander" has a special ability (based upon the shows powers)
  - Sub-champions are cards that can be used for combining 2 decks into 1 for combo-decks
- Card Types
  - Champion Card
  - Unit Cards
  - Spell Cards
  - Wonders/Monuments/Landmarks??
- Players begin with ("5") cards in hand. 1 of 5 cards can be exchanged in the beginning.
- Begin with ("0") "Mana".
- +1 "Mana" each round. Max of ("9") "Mana"
- Draw a new card each "Round".
- Play a card by spending "X" "Mana".
- Players can "attack", "pass", "block" in a turn.
- Rewards are given at the end of a game, they can be:
  - Chest (can include currency & card fronts/backs)
  - Currency (used for purchasing card front/backs) (non-monetizable currency)
  - Card Front/Back?
  - Special Champion Card?
- Login Rewards?
  - Currency
  - Card Front/Backs

# Arena Concept

This Arena layout, is heavily inspired by Legends of Runeterra, it adds an extra layer of gameplay.

## Standard Arena Concept

I developed 2 “standard” arena concepts, shown in figure 1 and 2, they both look similar, however, core game-play is different.

Figure 1 shows the gameplay of: Hand > Active Deck > Play Area.

This version of play follows the LoR (Legends of Runeterra) style, a recently new play on digital card games. The user plays card into a “active deck” which can then be put into the play area, allowing for multiple rounds of building then striking all out.

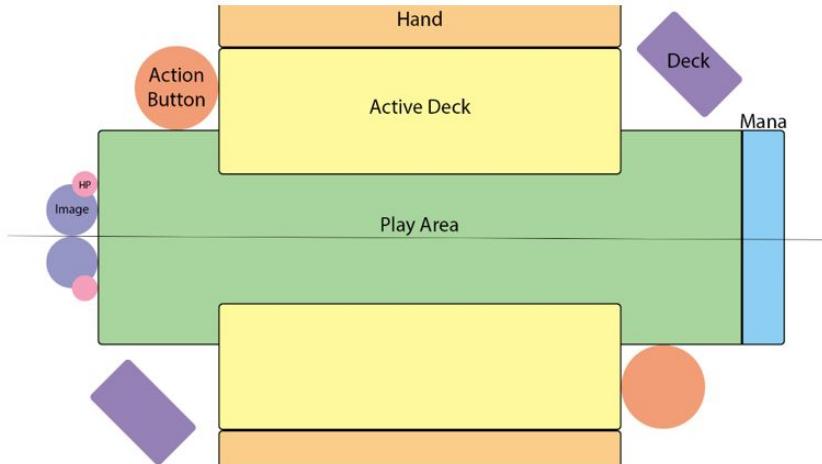


Figure 1 Standard Arena Concept 1

# Arena Concept

This layout is the preferred layout, it works just like Hearthstone, where the player hand their “Hand” and place a card onto the “Play Area”.

This layout is likely to be the most commonly used for both digital and non-digital card games, as players have their “hand” and the “play area”.

This design eliminates the extra gameplay element seen previously. This allows for an easier to grasp core loop.

Figure 2 shows the gameplay of: Hand > Play Area

This version of play follows the Hearthstone style, where the user directly plays their card onto the arena for battle.

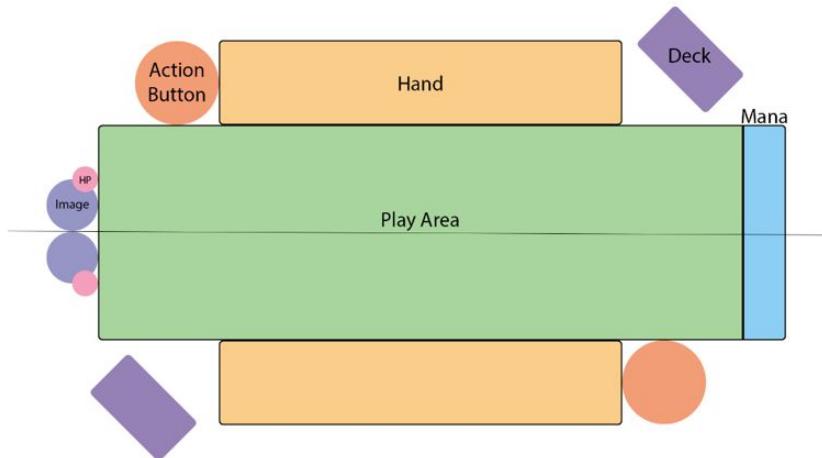


Figure 2 Standard Arena Concept 2

# Arena Concept

A more unique spin on the Arena layout, I did this for the purpose of I wanted to see how such a layout would look/play.

I personally wasn't a fan, it was a high-level concept and could use a lot more work to make it feasible so I stuck with the standard version

Circular Arena Concept



Figure 3 Circular Arena Concept 1

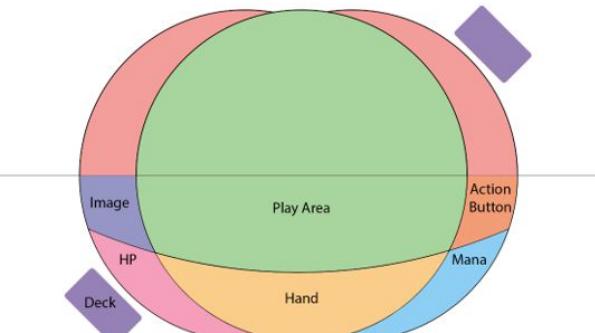


Figure 4 Circular Arena Concept 2

Both Figure 3/4 apply to figure 1/2 with a different UI style.



# Currency / Reward System

Due to the game's nature and likelihood of it falling under "freemium" a Currency System would likely be employed to earn money.

The reward system is a way to make the player feel good even if they were to lose their game, it also promotes the player to return to the game via "Daily Login Rewards".

## Currency

- In Game currency
- Currency is used for purchasing in-game content such as:
  - Champion Decks
  - Individual Cards
  - Front/Back card customization
    - Front/Back can be bought separately

## Example:

On Victory > Receive (Chest?) > Open (Chest) > Player Receives:

- "X" Currency and/or
- Card Set and/or
- Front Set or back Set and/or
- Special Champion Card Colour (Front/Back)

On Defeat > Receive (Chest?) > Open (Chest) > Player Receives:

- "X" Currency (Less than a Victory)
- Card Set (extremely low chance?) <- *May be too much for a Defeat.*

## Login Rewards:

- 7-day Reward Cycle
  - 1 reward per login day
    - *Resets on missed day or continues onwards ignoring missed day??*
  - Currency Reward
    - *Reward range of 25c-250c??*
  - Each continued reward needs to be better than the previous day
    - Day 1 – 25c
    - Day 2 – 50c
    - Day 3 – 75c
    - Day 4 – Card Back Set
    - Day 5 – Card Front Set
    - Day 6 – 200c
    - Day 7 – Special Champion Card Set.

# Card Types & Abilities

One of the unique things about this Brief is the ability to create Characters/Monsters and their abilities based upon the show and the provided pitch-bible/deck was extremely helpful for identifying different characters/monsters that would appear in the show.

The “Champions” correlate directly to the show, however “Magic the Gathering” uses a system similar to this, wherein each deck has a “Commander” that has a unique ability.

I believed it would fit very well into this game as it would help to showcase the power the characters have in the show.

“Units” are the standard card you get, they are less powerful than the commander but you can have multiple of them in your deck.

Based upon the show, I concepted 2 very brief decks, one to showcase the protagonist and antagonist of the show.

## Card Types & Abilities

### Champions

Champions are the “commanders” of decks, they are the one who represents each deck, a player can pick between several Champions:

- Effie
- Anya (Eithne Kelton)
- The Devil
- The Big Bad
- Mackenzie Weir
- Tristan MacCunn
- Bran Morgan

### Abilities

Each Champion has a corresponding “Ability”, based upon the show and information given in the pitch-bible/deck.

Key Abilities: Water, Thunder, Invisibility and Strength

### Example:

- Effier, Ability: Water
- Mackenzie Weir, Ability: Thunder

To use the champions ability they require certain circumstances

- Multiple Uses or 1 use per-game? (Depends on strength of ability??)
- Can’t be stopped. Once activated the ability is set and no other champions can counteract it.
  - Can be less effective against certain champions though, such as Effie vs Anya, both use water.

### Units

A “unit” is a card.

Each type of unit is specific to its Champion Commander.

### Example: Effie vs The Devil

- Effie’s Deck
  - Consists of her “crew” from the show + “friendly” mythological creatures (fairy, unicorns etc)
- The Devils Deck
  - Consists of the “Monsters” from the show + “Evil” mythological creature they may not be mentioned in the show/pitch bible

Not all Units are people/monsters

- Spells/Relics
- Wonders/Monuments/Landmarks

# Card Deck System

A brief overview of how the deck system works and the limitations that would be in-place to help prevent an over abundance of one card.

## Card Deck

A deck consists of 30 Cards Total. (Technically 28/29 depends if champion/sub-champion cards are a thing)

- Can have multiple of one Card, 2x "card name" 4x "card name", as long as it equals 30, it is fine.
  - A cap of 3/4 of each card will probably be in place.
  - Normal Unit's would make the majority of a deck with less spells and "landmarks"
- A deck consists of "Units" which can contain spells and "Landmarks"

A deck has 1 Commander and an optional 1 sub-commander (allows for combo-decks or a solid deck)

- Combo Decks
  - Offensive vs Defensive
    - Offensive: Water + Thunder
    - Defensive: Invisibility + Strength

Deck Breakdown:

<-	Commander Champion	->
Champion Card	<- 2 Cards ->	Sub-Champion Card
14 Cards	<- 28 Cards ->	14 Cards
	30 Cards Total	
	Other Deck Ratio Examples	
2 Cards	<- 28 Cards ->	16 Cards
8 Cards	<- 28 Cards ->	20 Cards
	No Sub-Champion	
28 Cards	<- 28 Card	

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To help my concept I watched this GDC talk that discusses balancing in card games, this was a huge help as I was able to refer back to it when I needed.

It introduced me to the “Power Curve” a visual way to see the power level in your game, it showed the optimal curve and I tried to replicate it the best I could.



# Power Curve



Here is my understanding of the Power Curve from the previous GDC talk.

A key take-away is “Build Strong > Tune Down”, this means that for my card concepts to start them out as strong and tune them down as needed.

## Power Curve

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Power Refers to a Unit’s Damage + Ability.

If the commander of each deck also has a card (+ sub-commander), they need to be in the middle ground between the Mana cost of 4-6, with power of 3-5 and Hit points of 5-6(MAX)

A lot of adjusting and balancing will be required, but the approach I will take is “Build Strong > Tune Down”, this way the cards full potential can be seen and adjusted through testing to a strong but balanced state.

If “Units” can have upgraded versions of themselves, they should not be as powerful as the base cost of the next tier.

Example:

- A 2 Mana / 2 Damage / 2 Hit points card has an upgrade where they gain + 1 Damage and an Ability making it a 2 Mana / 3 Damage / 2 Hit points + ability. A 3 Mana card should still be more powerful at its base than an upgraded version of the previous tier.

Power Rules:

4 Mana or less Cost:

- No or weak Ability
- Weak Damage/HP
- Power capped
  - Can be surpassed by upgrades through other units

5—6 Mana Cost:

- Medium Ground, Average Ability Power.
- Medium Cost
  - Average Ability, Strong Damage/Low HP
  - Strong Ability, Weak Damage/HP
  - Weak Ability, Strong Damage/HP

7-9 Mana Cost:

- End Game Cards
- High Cost != High Damage/HP
  - High Cost, Strong Ability, Weak Damage/HP
  - High Cost, Weak/No Ability, High Damage/HP



## Client Pitch

With both concepts completed and showcased to the teams/mentor, our mentor heavily recommended to pick just 1 of the concepts to showcase to the client.

We spent some time discussing and went with mine, for the fact that it is more simplistic compared to the other concept and we felt it would suit the clients needs better.

We then prepared a pitch-presentation and each did our own voice-recordings per my request.

The client's response was welcome:

Hi Joe,

This is great, thank you!

This all sounds like a great idea and I'm excited to see it progress over the coming weeks and months.

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## Sprint Review

Our mentor has asked us to create weekly progress reports. I have elected to go with a shared google slide that each member can update themselves with what they have done.

As this is the first development sprint, not much happened as we spent the majority brainstorming and conceiving so there wasn't anything for us to change as this is a one off essentially.

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# Sprint 2 - First Playable Part 1



# Production

To start this sprint off, I completely re-created our Jira board. As it turns out I set it up incorrectly and used a “company managed” approach, which had more restrictions and wouldn’t allow me to adjust the Jira Workflow. I created the new board using the “team managed” approach, this allowed me to adjust the Jira Workflow as needed and opened up more options to us as a team.

For this sprint, I again sent up an Epic titled “First Playable Part 1”, the goal of this sprint is to begin design and development of the key elements of the game, nailing our art style and developing cards.

During our client meeting one issue we encountered is multiplayer, as mentioned our programmer was happy to do it, however we never considered how we would host the game. The client raised concerns about this as it could likely be costly for them to host. So for this sprint I assigned our programmer to research networking to see what we could do.

Our programmer assured us that if networking were to fail, he has a back-up plan to implement AI instead, this is what our Mentor strongly advised us to do but we decided to stick to multiplayer for now.

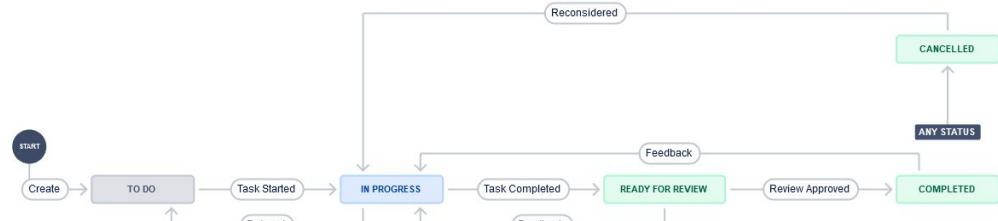
To help split the workload, me and adam agreed to both develop a deck of our own, I took the Human side of the show and he took the Monster side.

# Jira Workflow

I tweaked the default workflow of Jira to be better suited for our team.

This flow made it so that tasks cannot be immediately marked as completed, they had to go through “In-Progress” and “Ready for Review”.

If a task needs cancelled at any stage it can be moved to cancelled. At the end of the project any tasks that were in cancelled will be moved to the backlog.





## Character Research

To begin, I did some research into the Human Characters in the show as this is the cards I would be developing.

Using the provided pitch-bible/deck I was able to gain some insight into the characters and their personalities (next slide).

#### Dwyer Clan Characters:

Effie Dwyer (18); Personality: Big heart, positive energy

- Story focus: On returning to Scotland, she is the cause that sets off a supernatural event.
  - o She trains with Anya to become the next "Champion"
  - o Is in search of ancient Scottish artefacts charged with magic, in hopes of stopping Bealin' Donald
  - o Idolises her father
  - o Very serious on being Matthews big Sister
  - o Relationship with Arvil is small
  - o Doesn't know Carwen at all but gradually warms to her
  - o Has romantic feeling towards Lachlan
  - o Awkward relationship with Anya at first.

Kristine Dwyer (48), Effie's Mother

- Struggles to accept that Effie is her turned and concerned for who or what she may turn out to be

Gregor Dwyer (50) Effie's Father; Personality: Confident, kind and caring

- Made a deal with Bealin' Donald
- Wants to be more open and honest with his family

Bruce Dwyer (46), Effie's uncle, brother of Gregor

- Jealous of older brother Gregor
- Bisexual

Morag Dwyer (75), Mother of Gregor and Bruce, Grandmother of Effie

- Considering crazy by residents
- Was once steward of the Laoich
- Falls into a coma upon Effie's return

Arvil Dwyer (19), Effie's Cousin

- Initially is jealous of Effie
- See's Effie as a rival
- In a relationship with Carwen
- Bruce is her father

Matthew Dwyer (13), Effie's younger brother

- Adopted
- Strongest relationship with Carwen
- Everyone see's him as a "nerd" until he shows his usefulness when the supernatural stuff happens.

#### Lachlan Glen (20)

- Effie's love interest
- Is an outside eye for family crisis
- ADHD
- Loves machines and technology
- Good friendship with Gregor
- Finds Matthew weird but tries to be nice.

Carwen Jones (19); Personality: Friendly and Gregarious

- A drifter
- In a relationship with Arvil
- Not used to deep friendships
- Having a liking for Effie makes a conflict between herself, Effie and Arvil

#### Champions:

Anya (25/1236); Personality: Intelligent and Bright

- When Effie returns to Scotland she is freed from his stasis (just like Alasdair)
- Laoich, pictish goddess, Controls Water

Alasdair Ban (25/250)

#### Story:

- Plans to steal Effie's Magic

- When Effie returns to Scotland he is freed from his stasis (just like Effie)
- Former Champion
- Manipulated by Bealin' Donald

Bealin' Donald (Eternal); Personality: Cunning and Manipulative

- Manipulates Players/Champions (Alasdair)
- Gains power through making deals with desperate people
- To regain his power, he needs all portals around Scotland to be open.

# Deck Design

All the “Unit” cards are inspired by characters from the show, their abilities tie in with their personalities ([previous slide](#)).

I discovered that “Lachlan” was swapped out at birth so Iconcepted that his ability would be to summon this changeling when his card is destroyed.

Any relationships that happen between characters I kept where possible as seen in the “Arvil” and “Carwen” abilities.

## Joe M's Deck Concept

\*\*Cards do not need their names, stats or descriptions in the \*\*final\*\* art, concept art is okay

### Champion

#### Effie

- Ability: When played, Heal all Damaged Allies by +1

### Units

#### Bruce

- Ability: N/A

#### Kristine

- Ability: N/A

#### Morag

- Ability: Empower 1 Allie for 1 turn

#### Gregor

- Ability: Cleanse all effects on 1 Allie

#### Matthew

- Weaken an Enemy Attacker by -2 Damage while Blocking

#### Lachlan

- When Destroyed summon a 0/2/2 Changeling in Hand

#### Arvil

- Ability: When Destroyed summon Carwin in Hand

#### Carwen

- Ability: When Destroyed summon Arvil in Hand

### Spells

#### Water Healing

- Ability: Heal Target Allie for +1

#### Water Bubble

- Ability: Target Enemy Unit cannot Attack this Round

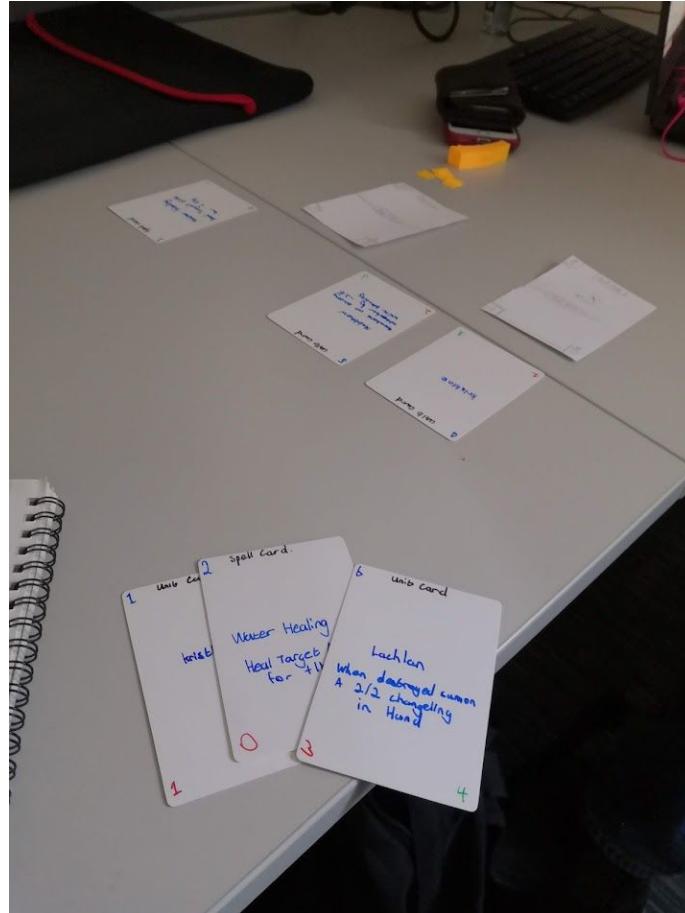
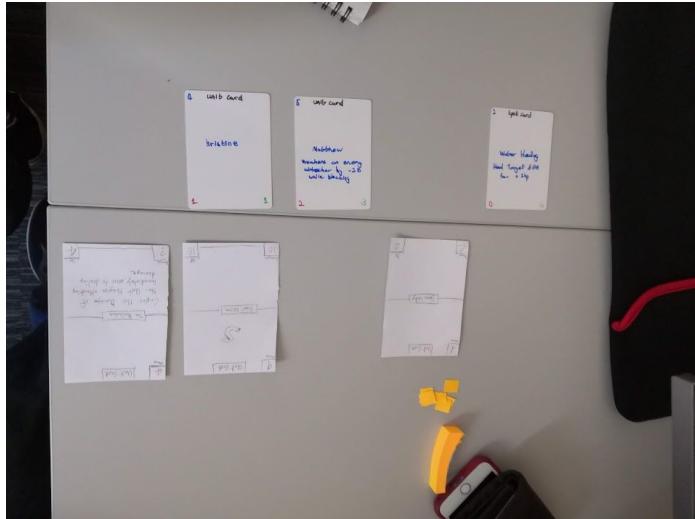
#### Water Wave

- Ability: Deal 1 Damage to all Enemy Units and Heal all your Units by +1

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# Deck Testing

Me and Adam both tested our decks against each other.



# Core Gameplay Changes

Whilst me and Adam were testing we ran into a few issues, we were both playing with 2 different rulesets in-mind so we after we tested we created a documented to hold all of the Rules and System in for ourselves and the programmers.

This document is essentially an expanded version of my concept and is what was used throughout development.

## Origins of the Laoich Gameplay Rules

### Hand Rules

Starting Hand Size; 5

- Minimum number of cards the player starts with at the beginning.
- 1 card can be exchanged at the start of the game when the player is presented their hand.

Example:



Max Hand Size; 7

- Maximum number of cards the player can have in their hand at one time.
  - If they are presented with more than 7, they must discard however many cards are required to make the hand size a maximum of 7.

Cards in Play; 5

- The maximum number of cards on the board is 5 for each player.

Acquiring more cards

- At the beginning of each round each player picks up a card from their deck.
- Cards can also be acquired through certain circumstances such as card abilities that summon cards into the player hand or deck or replaces a card when destroyed.

## System Rules

### Deck Size; 30

- Each Deck has a maximum of 30 cards.
  - Each deck must have 1 champion card.
  - 3 of each unit type is allowed per deck.
  - 8 Maximum spell cards per deck.
    - Of which 3 max of each spell card.

### Graveyard System

- The graveyard is where destroyed cards are stored
- Cards from the graveyard can be returned at random or selected if stated.
- When a player's deck runs out, the graveyard is re-shuffled and added back to the player's deck.

### Mana System

- Mana starts at 1/9 at the games beginning.
- Each new round the mana increases by 1 to a maximum of 9.
- Any mana that is spent is reset upon the new round beginning.

### Damage System

- Each card has a different Damage rating, scaling from 0-10(TBD).
- Damage can affect both cards and the champion itself.

### Health System

- Each card has a different Health rating, scaling from 1-10(TBD).
- The champions themselves have 20(TBD) health.

### Attack System

- A player can choose which cards to attack with that are in the play area.
- Not all cards need to be attacked with.
- Units can only target the card in front of them, unless specified otherwise.
- If there is no unit card to block the attacking unit card, the damage is dealt directly to the champions health pool.

### Block System

- Players can choose to block attacking unit cards with their own unit cards or leave it open to take the direct damage to their champion.

### Actions in a turn

- Players can place 1 card in their turn, provided they have the available mana to do so.
- An attack action can only be taken by 1 player per round, each round the attack actions swaps between the players.
- Turn Cycle:
  - Round 1 Begins – Player 1 has Attack action
    - Player 1 – Places Card
    - Player 2 – Places Card

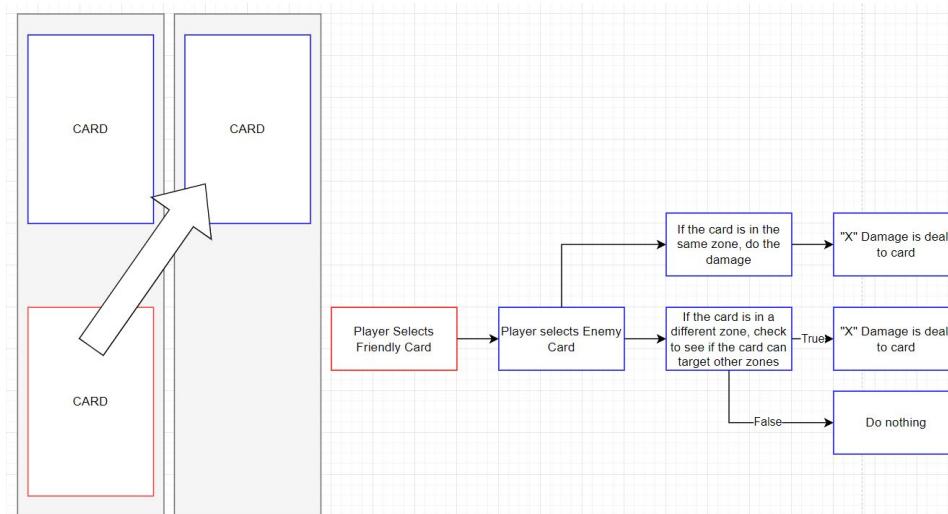
- Player 1 – Attacks Player 2
- Player 2 – Blocks Player 1

- Round 2 Begins – Player 2 has Attack action
  - Both players pick-up a new card
  - Player 2 Turn
  - Player 2 places 1 card
  - Player 1 Turn
  - Player 1 Places 1 card
  - Player 2 Turn 2
  - Player 2 Attacks Player 1
  - Player 1 Turn 2
  - Player 1 Blocks Player 2

---

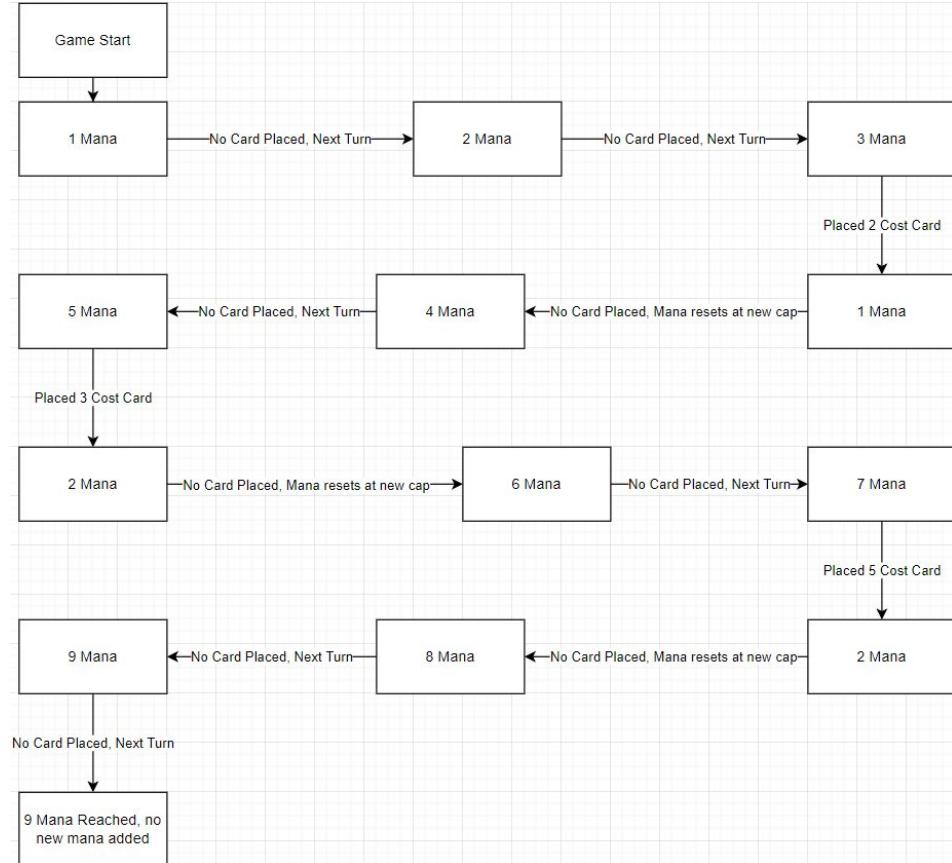
# Attack System

The player would select their card of choice and then select another card to attack. If a cards ability allows it to target cards in the other zone it can then target them.



# Mana System

The Mana System functions like any other Mana System. We have our own maximum cap of 9 in place as the flowchart demonstrates.

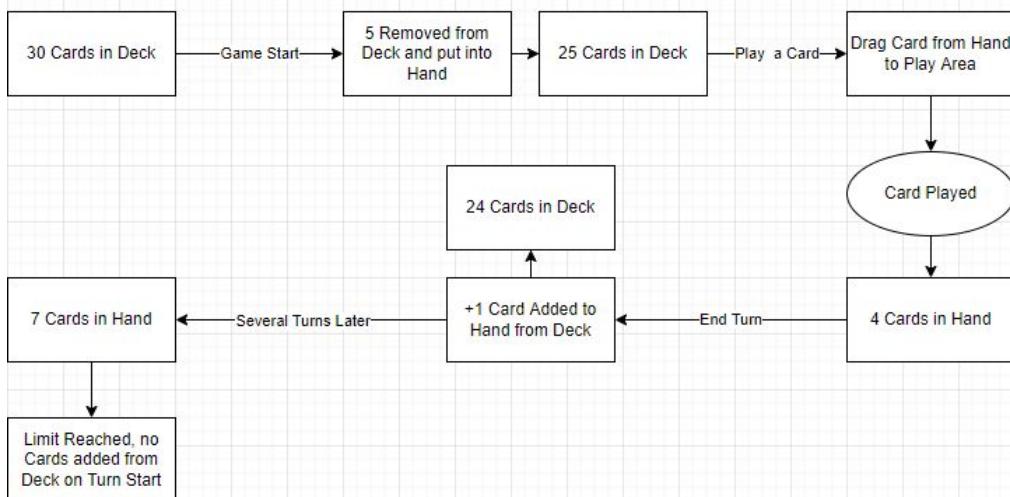


# Card Hand

I created this flow chart to showcase what and how the “Hand” system would function.

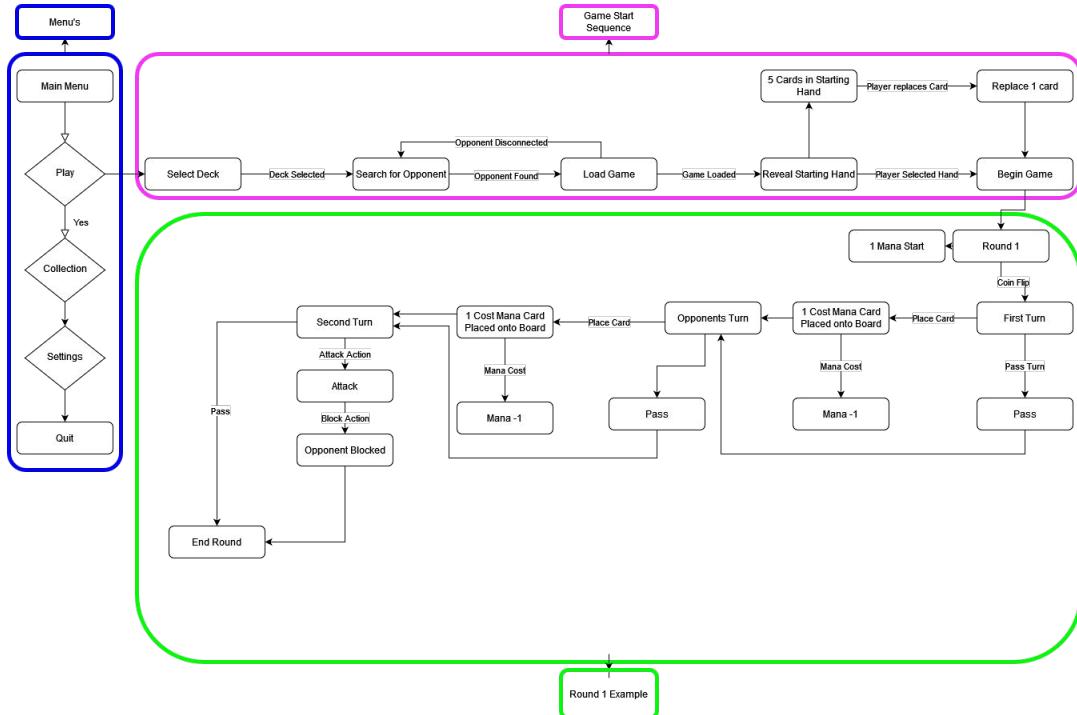
Since our Hand begins at 5 but can hold up to 7 I needed to show the flow of this for clarity.

**HAND Flow Chart**



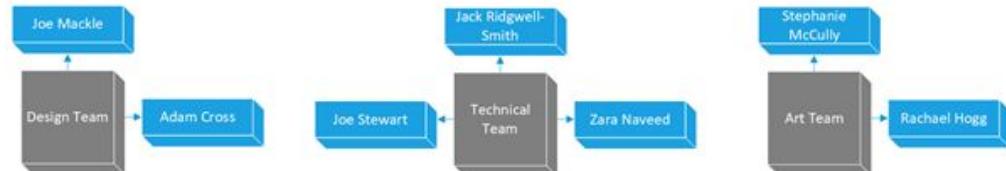
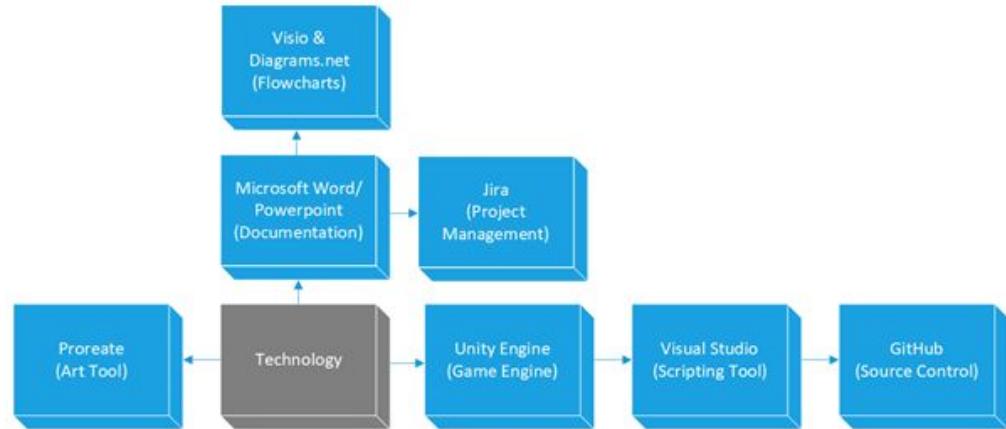
# Gameplay Loop

I created a high-level flowchart based upon the rules & systems doc that showcases the first round of a game, I only did the first round as every round will be essentially the same with the only difference being the amount of Mana you have to spend, the cards being used etc.



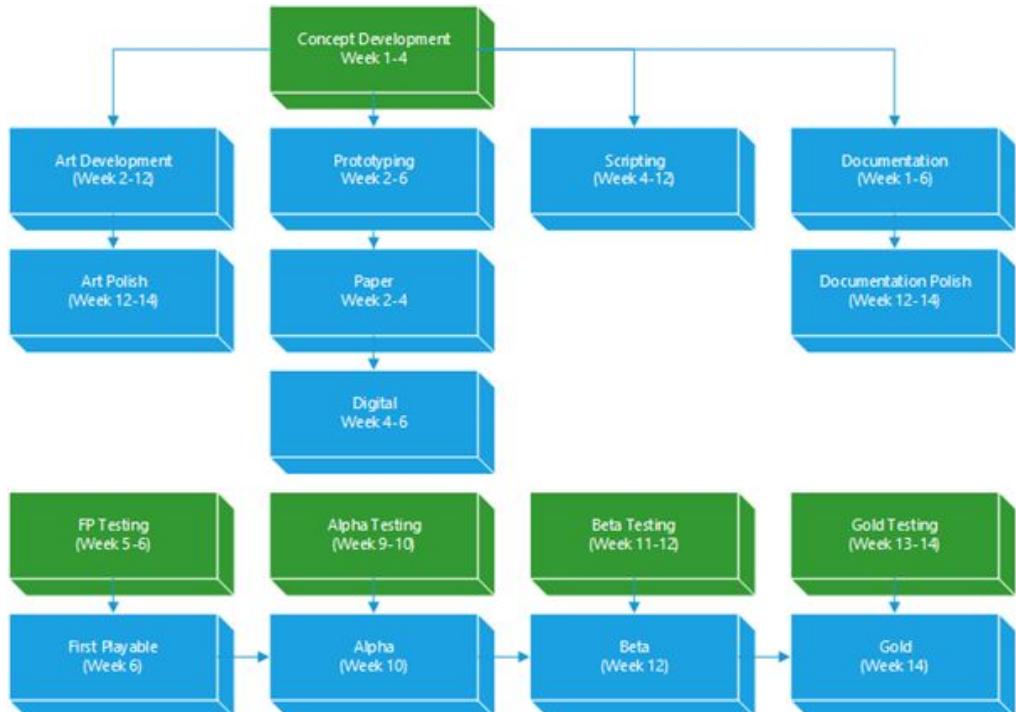
# Technical Design Document

As the programmers were busy and I had some free time, I made use of it and created some High-Level diagrams for the TDD about the technology we are using and each role and their respective members.



A high-level diagram showcasing the key development stages and the expected weeks they plan to take place.

I created this diagram as it is easier to follow and showcase compared to the project [gantt chart](#).



# Unit Card Iteration

After testing the [initial deck](#) last week, I felt I needed to make several changes throughout.

## Paper Prototype 2

### Unit Concepts

Unit Card Name	Mana Cost	Damage	Health	Ability
Effie	4	3	3	When played, Heal all Damaged Allies by +1
Bruce	1	1	1	N/A
Kristine	1	1	1	N/A
Morag	3	1	2	When Played Empower 1 Allie (+1/+1) for 1 turn
Gregor	4	2	3	Cleanse all effects on 1 Allie
Matthew	5	3	3	Weaken an Enemy Attacker by -2 Damage while Blocking
Lachlan	6	3	4	When Destroyed replace with a 0M/2D/2HP Changeling
Changeling	0	2	2	N/A
Arvil	7	5	4	When Destroyed summon Arvil in Hand
Carwin	7	5	4	When Destroyed summon Carwin in Hand

Based upon last week's testing, I felt my cards were underpowered in comparison to Adams.

Changelog:

- [ADJUSTED] Morag
  - Ability: "Empower 1 Allie for 1 turn" >> "When Played Empower 1 Allie (+1/+1) for 1 turn"
  - 1HP >> 2HP
- [ADJUSTED] Matthew
  - 2 Damage >> 3 Damage
- [ADJUSTED] Lachlan
  - Ability: "When Destroyed summon a 0/2/2 Changeling in Hand" >> "When Destroyed replace with a 0M/2D/2HP Changeling"
  - [NEW] Added Changeling to table

# Spell Card Iteration

For my spells I again felt they needed buffs, I also added 2 new spells, both of which are inspired from the show itself as they are weapons used by characters.

## Spell Concepts

Spell Card Name	Mana Cost	Damage	Health	Ability
Water Healing	2	0	0	Heal Target Allie for +1HP
Water Bubble	4	0	0	Target Enemy Unit Cannot Attack this Round
Tidal Wave	8	0	0	Deal 2 Damage to all Enemy Units Heal all your Units by +2HP
Take Aim	2	2	0	Deals 2 Direct Damage to Enemy Commander
Targe	3	0	0	Strengthen Target Allie Unit by +2HP

## Changelog:

- [ADJUSTED] Water Healing >> Tidal Wave
  - 1 >> 2 Damage
  - 1 >> 2 Healing
- [NEW] Take Aim
  - Deals 2 Direct Damage to Enemy Commander
- [NEW] Targe
  - Strengthen Target Allie Unit by +2HP



## Sprint Review

The programmers mentioned how on Jira the naming of stories was confusing at times, such things as “design” and “develop” being different things, which I agreed and re-named any design related to task to “design” and programming tasks to “develop”.

---

# Sprint 3 - First Playable Part 2



# Production

Our client informed us that he would no longer be able to attend weekly/bi-weekly meetings for the foreseeable future. To not be completely out of the loop our Mentor instructed us to create Bi-Weekly Progress reports for the client as well as any videos that may be helpful.

Our client also requested we create short bios and provide photos of ourselves so that he could promote us on their social media platforms.

For this sprint, I again set up an Epic titled “First Playable Part 2”, the goal of this sprint is to get our First Playable complete at the high-level we need to have our core gameplay in place. In this sprint I created 2 stories titled “Character Art” and “Monster Art”, these stories will last throughout the whole development phase but start at this sprint.

We had multiple issues at the beginning of this sprint, on the 1st of March we decided it would be best to work from home this week as the university computers were giving us issues, on top of the room we were assigned having no heating.

---

## Group Socials

I had originally planned to do a Twitter page for the team but decided against it as I already had much to do and no-one else wanted to do it either.

I instead created the Itch.io page for our project. It at the time was just a blank slate with placeholder images/text. The final page can be viewed [here](#).

# Audio Design

Our team does not have an Audio designer and no-one has any experience with creating Audio Assets. I volunteered to do it for us. I created an Audio Design Document (ADD) using the provided WIKI instance the lecturers had set up.

I also created a Audio Asset List template using Excel. This list is a handy way of keeping track of all assets needed and their current implementation status.

Category	Subcategory	Asset Name	Integration	Notes
Card SFX	Card - Pickup	SFX_Card_Pickup SFX_Commander_Pickup		
	Card - Placement	SFX_Card_Placement SFX_Commander_Placement		
	Card - Attack	SFX_Card_Attack SFX_Commander_Attack		
	Card - Block	SFX_Card_Block SFX_Commander_Block		
	Card - Destroyed	SFX_Card_Destroyed SFX_Commander_Destroyed		
	Card - Ability Activation	SFX_Card_Ability_Activation SFX_Commander_Activation		
	Card - Hover	SFX_Card_Hover		
User Interface SFX	UI - Button Press	SFX_Button_Press_UI		
	UI - Button Hover	SFX_Button_Hover_UI		
	UI - Slider	SFX_Slider_UI		
	UI - Action Button Press	SFX_Action_Button_Press_UI		
Ambience SFX	In-Game	UI - Action Button Hover	SFX_Action_Hover_UI	
		SFX_Wind_Ambience		
		SFX_Trees_Ambience		
	In-Game	SFX_River_Ambience		
Music	Start Screen Soundtrack	Music_Soundtrack_Start_Screen		
	Main Menu Soundtrack	Music_Soundtrack_Main_Menu		
	Loading Screen	Music>Loading_Screen		
	In-Game	Music_In_Game		
Dialogue	Commander	Dialogue_Commander_Game_Start		
		Dialogue_Commander_Damage_Taken		
		Dialogue_Commander_Win		
		Dialogue_Commander_Defeat		

I then refined the list by adding the “Essential” and “Stretch Goal” labels to each type of asset. This allowed me to prioritise what was needed first.

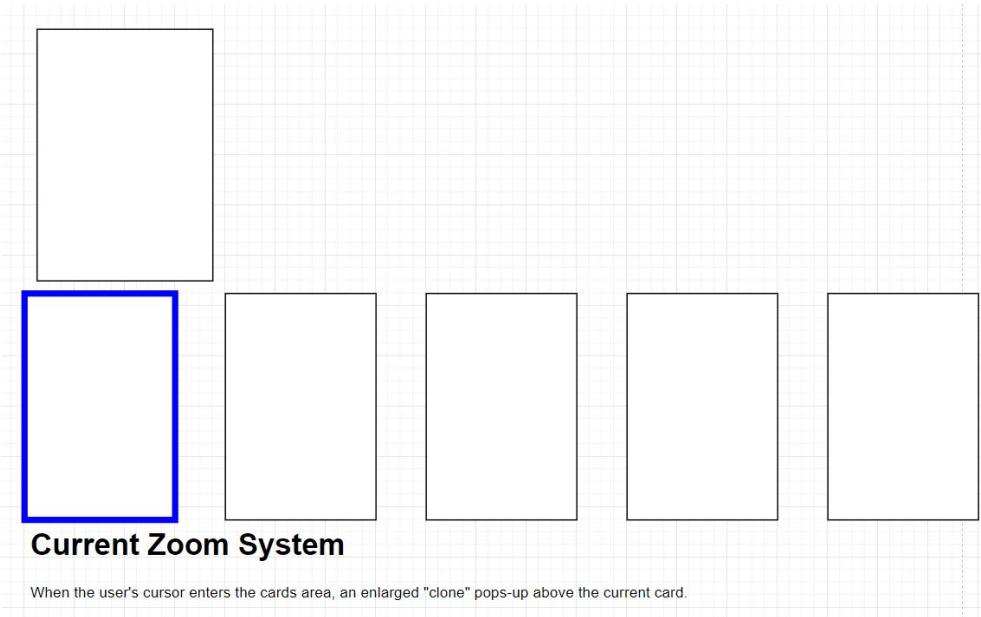
Category	Subcategory	Asset Name	Integration	Notes
Card SFX	Card - Pickup	SFX_Card_Pickup SFX_Card_Commander_Pickup		Essential Stretch Goal
	Card - Placement	SFX_Card_Placement SFX_Card_Commander_Placement		Essential Stretch Goal
	Card - Attack	SFX_Card_Attack SFX_Card_Commander_Attack		Essential Stretch Goal
	Card - Block	SFX_Card_Block SFX_Card_Commander_Block		Essential Stretch Goal
	Card - Destroyed	SFX_Card_Destroyed SFX_Card_Commander_Destroyed		Essential Stretch Goal
	Card - Ability Activation	SFX_Card_Ability_Activation SFX_Card_Commander_Activation		Essential Stretch Goal
	Card - Hover	SFX_Card_Hover		Essential
	UI - Button Press	SFX_Button_Press_UI		Essential
	UI - Button Hover	SFX_Button_Hover_UI		Essential
User Interface SFX	UI - Slider	SFX_Slider_UI		Essential
	UI - Action Button Press	SFX_Action_Button_Press_UI		Essential
	UI - Action Button Hover	SFX_Action_Button_Hover_UI		Essential
	In-Game	SFX_Wind_Ambience SFX_Trees_Ambience SFX_River_Ambience		Stretch Goal Stretch Goal Stretch Goal
Music	Start Screen Soundtrack	Music_Soundtrack_Start_Screen		Essential
	Main Menu Soundtrack	Music_Soundtrack_Main_Menu		Essential
	Loading Screen	Music_Loading_Screen		Essential
	In-Game	Music_In_Game		Essential
Dialogue	Commander	Dialogue_Commander_Game_Start		Stretch Goal
		Dialogue_Commander_Damage_Taken		Stretch Goal
		Dialogue_Commander_Win		Stretch Goal
		Dialogue_Commander_Defeat		Stretch Goal

---

## Card Zoom/Highlight Feature

To improve the user experience, I developed the “Card Zoom” feature and “Card Highlight” feature.

Both features are there for visual feedback, the highlight lets the player know they are hovering over the card. The zoom is there to let the player see the selected card up-close. Zara implemented these features for our First Playable.



When the user's cursor enters the cards area, an enlarged "clone" pops-up above the current card.

# 1st Year QA Testing

Since our First Playable is due at the end of this sprint, I created the documents required for the 1st years to test our game, this involved creating a “readme”, which had a basic overview of the game, how to launch it and the controls. A “known issues” document which contained any issues that may affect the users experience when playing.

This same layout is used throughout each major milestone.

## Origins of the Laoich – Read Me

### Overview

The first build shows off the most basic gameplay for a card game. It tests that the game switches between players on a turn-by-turn basis and tests that basic card interactions (health and attack) are utilized, allowing cards to be defeated when their health is brought down to zero. The build also tests for cards taking away mana.

### Run:

Open the “OOTL-Build” folder and run “OriginsOfTheLaoichCardGame.exe”

### Controls:

Click & Drag - Mouse 1 (drag card from your hand to the play-area)

Attack – Mouse 1 (select opponent card)

Close Game – alt+f4

## Origins of the Laoich – Known Issues

### Card Elements

- Cards can attack themselves and destroy friendly cards.
- “Draw Cards” button can be spammed, allowing for unlimited cards to be drawn.
- Cards are drawn at random, however for now any card can be any persons hand causing duplicates to be spawned.

### Turns/Rounds

- Some turns do not work as intended, meaning that even though it is your turn you won’t be able to place a card.
  - Work around: For now, you just must pass your turn by pressing the “End Turn” button.
- Sometimes the game gets stuck in a loop, and it is always a single persons turn.
  - Work around: close the game and restart.
- “End Turn” button can be spammed allowing the mana to go above the maximum of 9.
- “End Turn” button does not always give the player a new card when the round is over.

### Win Conditions

- There is currently no win/defeat condition.
  - When you run out of cards or no longer wish to play, you must close the game completely. (alt+f4)

# Bugzilla and Jira

Any bugs that got reported to the Bugzilla I added into Jira under the “First-Playable Bug Fixing” Epic.

The screenshot shows a Jira interface with a epic named "BDG-93 First-Playable Bug Fixing". Under this epic, there are three issues listed:

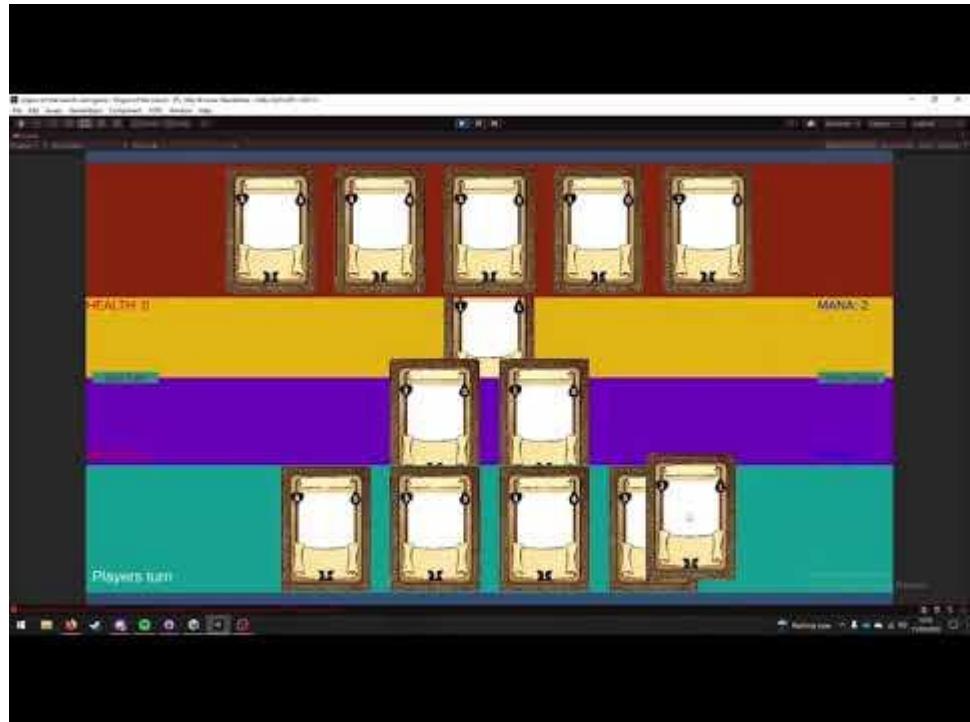
- BDG-96 [Fix] Turn system - Status: CANCELLED, assigned to JS
- BDG-94 [Fix] Card's Attacking me... - Status: COMPLETED, assigned to JR
- BDG-95 [Fix] Draw Card's system - Status: COMPLETED, assigned to JR

---

## First Playable Video

I recorded this in-engine demo of our first playable for the client. It does not have any “Attack Zones” in place and at the time allowed any card to attack whatever card it wanted. It also used a “Targeting” System where the player selected the card and then selected the card they wished to attack.

It also shows the highlighting and zoom features.



---

## Sprint Review

As a review of the Jira process, I have elected to add time estimation and tracking for future tasks, as I think it will be helpful to keep people more on-track as witnessed this sprint not having these measures allows for delays and people to fall behind.

This sprint was a slow one, due to multiple issues in development the TDD has been pushed to next sprint, thankfully this is a small task so it doesn't impact us at all.

Due to getting the core features implemented for the First Playable, Jack had to help out the other programmers which affected his research into networking. It has also been pushed to next sprint.

To make identifying bugs between ourselves and bugzilla simpler in the future, I will be adding the Bugzilla "ticket number" to the story title, this will help it be more easily identifiable.

---

# Sprint 4 - Alpha Development 1



# Production

This sprint I did some re-scoping analysis and decided it was best to cancel the “Reward System” I proposed this to the team and they agreed. During our Mentor meeting I proposed the idea and they agreed that this was a good decision for us to do.

The reason behind this decision was, I noticed that one of the programmers was falling behind, Joe Stewart who was assigned to develop the Reward System. I thought it would be in the best interest to drop this task so that he could help Zara develop the Deck Building System.

As this sprint came to a close, we got informed that Joe Stewart would no longer be apart of our group as he had been withdrawn from the University. Looking back now it was definitely a good call to drop the Reward System at the beginning of sprint 4. I informed the programmers and they said it wouldn’t affect their workload since he was originally doing the “Reward System” which had just been cancelled so it added no pressure for them.



Now that Alpha development has started, I have elected to split it into 3 Epics, which I am calling “stages” so we will have stage 1, 2 and 3. Each stage represents a single sprint, the sprints included is sprint 4, 5 and 6.

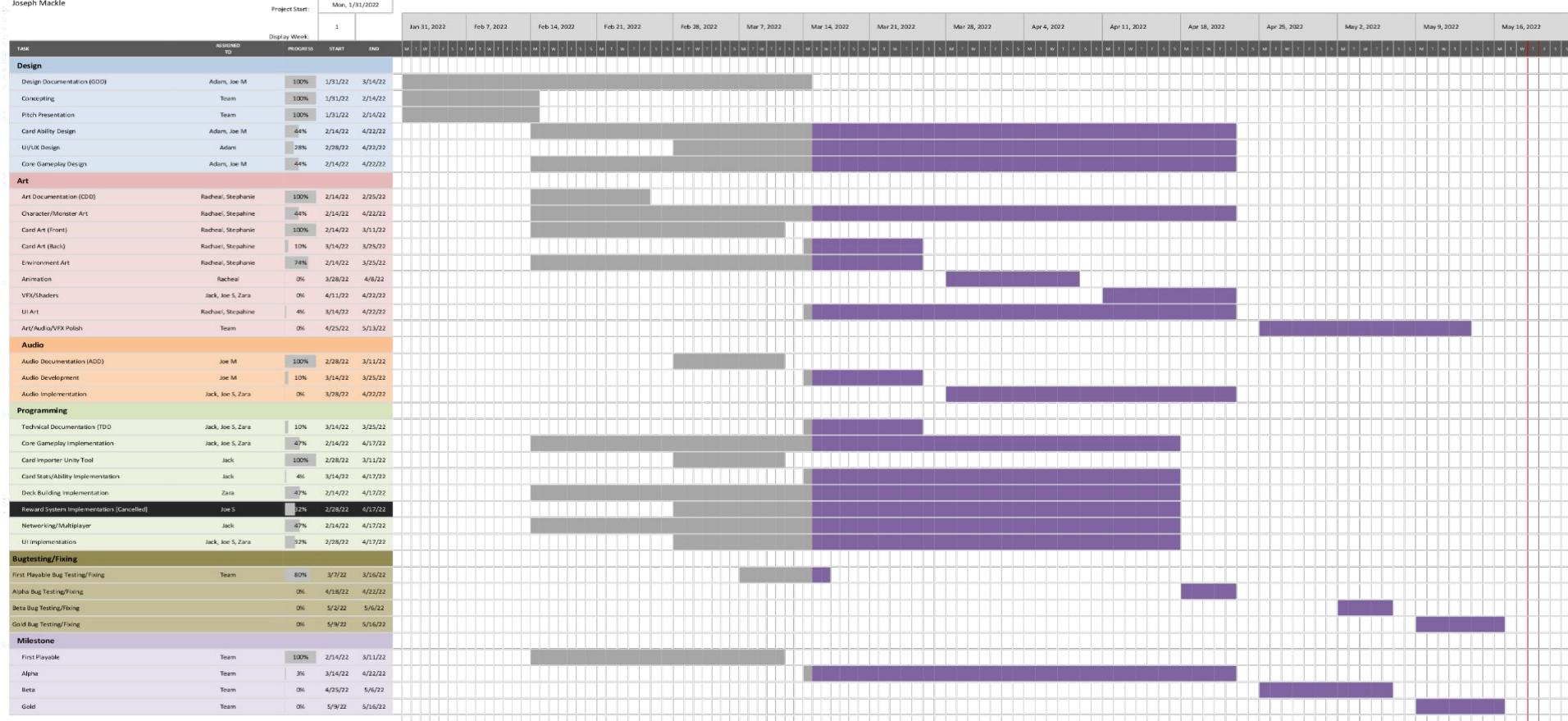
I informed our Mentor that Adam’s communication was starting to fall off and he wasn’t updating me on the progress of his tasks.

I added a new story titled “Card Deck Iterating”, this task will function similarly to the Artists tasks, that being that it will last throughout the entire project carrying over into each sprint.

In the next slide, an updated view of the project-plan can be seen, with the “Reward System” blacked out.

## DES310-Project Schedule

Blackdog-Games  
Joseph Mackle





## Scope Updates

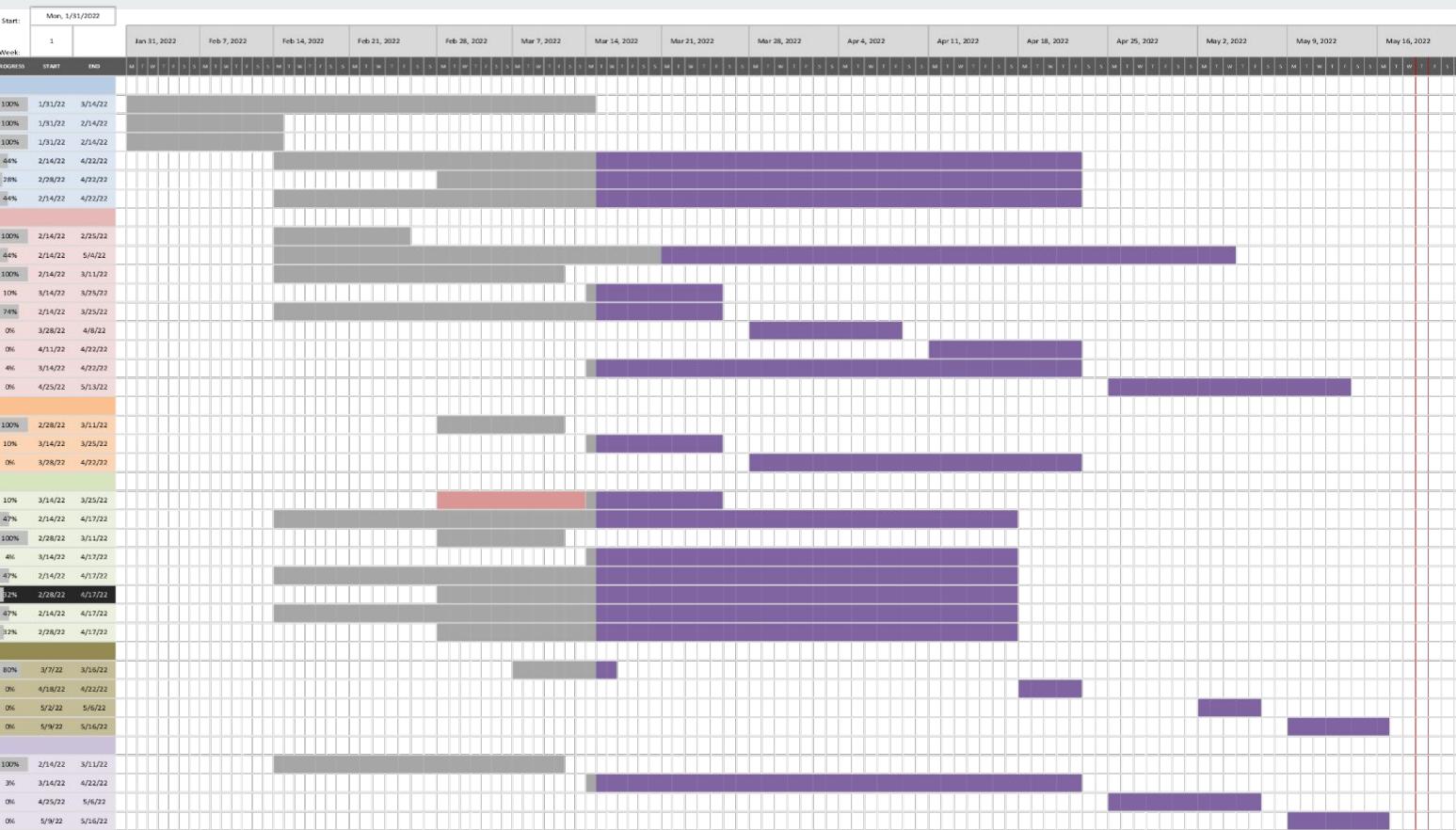
The Artists asked if the end-date for their art could be extended. I was able to extend it by 2 weeks bringing the end date to the 4th of May (next slide).

The TDD got pushed back a sprint, the programmers just don't have the time to look at it much, this isn't a big deal as it isn't needed until the end of the project.

## DES310-Project Schedule

Blackdog-Games

Joseph Mackle





# First Playable Feedback

Mona our Mentor gave us feedback on our First Playable.

1. She asked us if we planned to do a Main Menu.
2. She asked if we have planned for a Tutorial.
3. Fonts used are not the most readable.

Our Response to the First Playable Feedback:

1. It was planned to be added in this Sprint as we didn't see it as essential for the First Playable as we just wanted to showcase the core gameplay elements.
2. A tutorial had been thought off however, we do not plan to do an interactive one, rather a "How to Play" section in the main menu.
3. We will look into alternative fonts for the future.

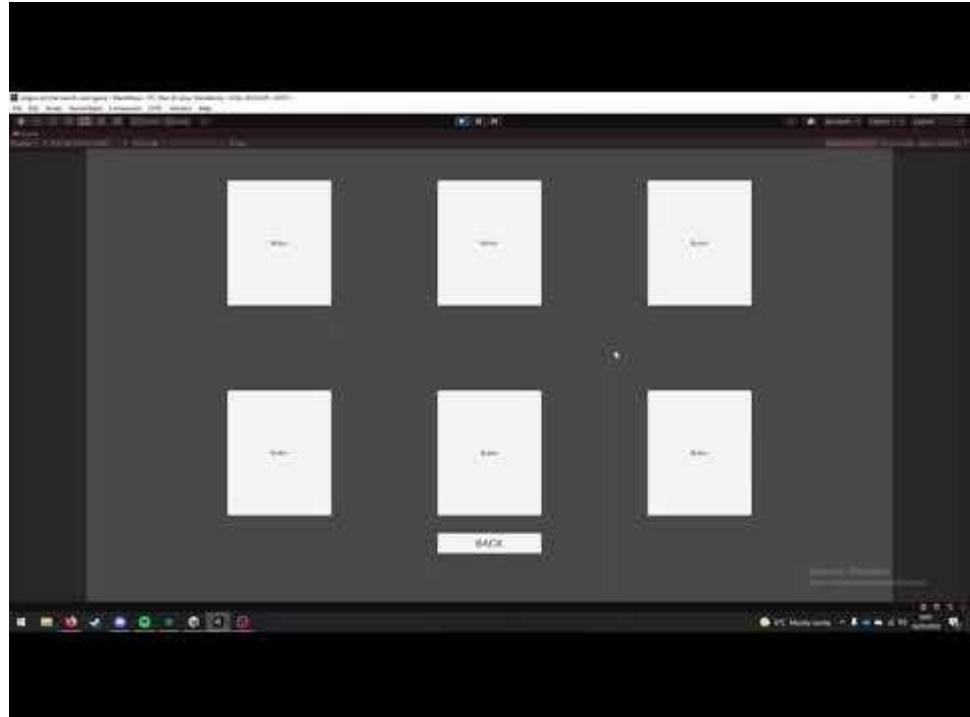
---

# Main Menu Skeleton

Since our team is a programmer down, I decided I would help out and implement the Main Menu.

I implemented a basic Main Menu skeleton into unity, following Adam's UX/UI diagrams, however his diagrams were outdated and had missing buttons so I had to adjust it to fit what was required.

I was inspired by Legends of Runeterra for this layout



---

## Core Gameplay Changes

This week I proposed core gameplay changes to the core loop of the game.

I did this because, some people didn't quite understand the purpose of rounds which I understood as only LoR had used this system before, I decided to spend some time re-working it to be more recognisable thus resulting in a turn based system.

I looked at Hearthstone for their turn system as well as Magic the Gathering and found that both use this form of system.

Doing this also takes some pressure off of the programmers, as they currently have it working as turn based so in doing this it makes it simpler for everyone and we can move on.

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# Proposed Changes

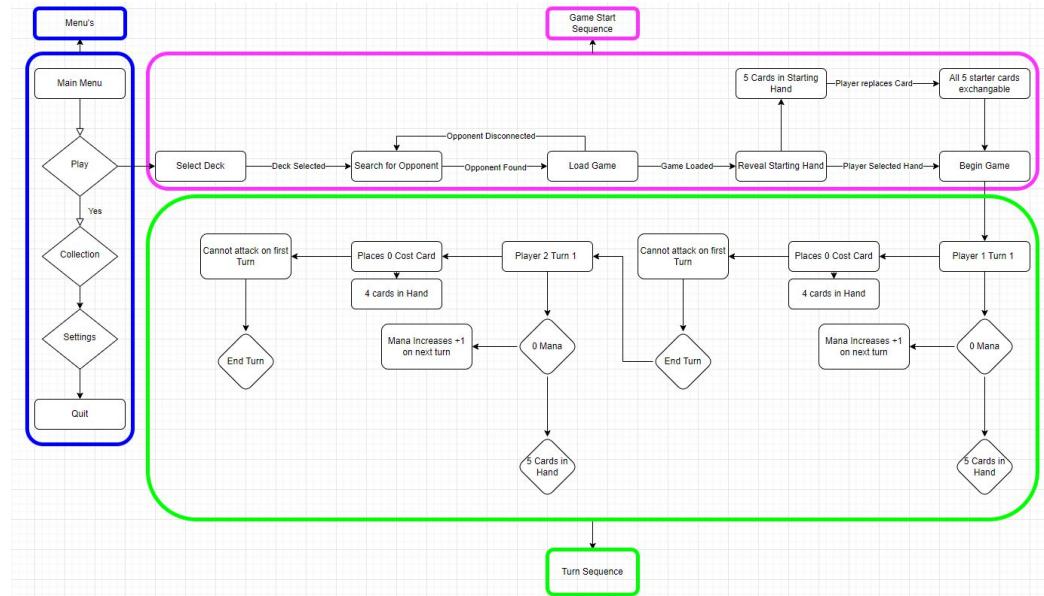
## \*\*REMOVE ROUNDS\*\*

- Turn vs Turn
- On each player's first turn, they cannot attack
- Whenever a card is first played it cannot attack, must wait until 2nd turn to attack. Unless card ability specifies otherwise.
- Provided a card had not just been played, a player can then attack with as many or as little in-play cards as they wish.
- A player can place however many cards they wish to place, provided they have the mana to do so, and they do not go over the cap of 7 cards on the play-area
- Attacks still only focus the card directly across from them, unless specified that it can target a card or Player.
- At the beginning of each turn 1 card is added to the player's hand.
- Any amount of the beginning 5 cards can be exchanged at the beginning of the game.



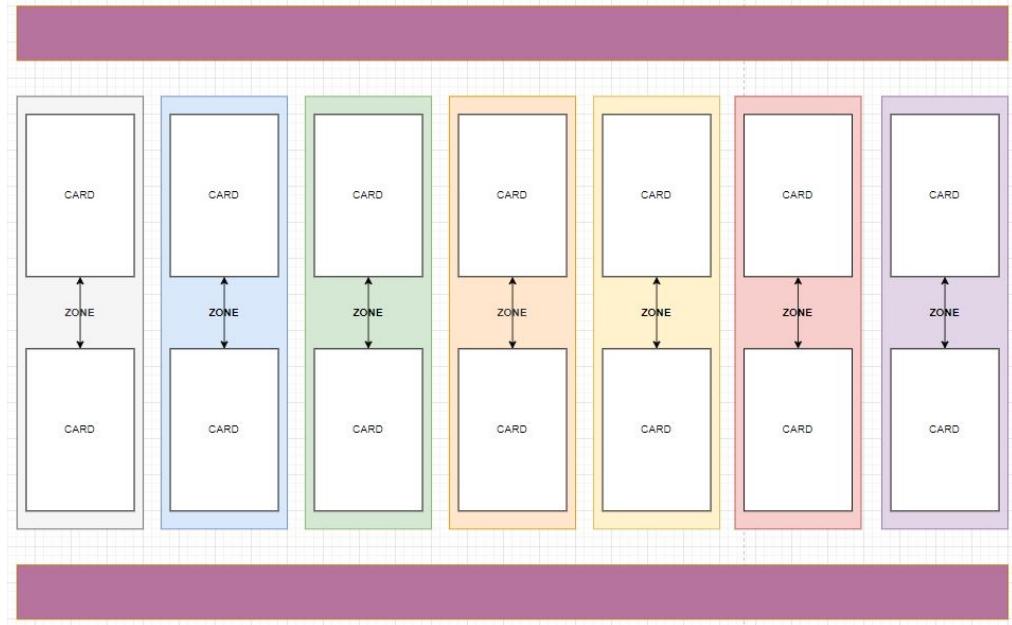
An updated flowchart to reflect the core gameplay changes.

The original can be seen [here](#).



# Attack System

At the time, “Attack Zones” had not been implemented so I created a more visual representation of the “Attack Zones”, there are 7 Attack Zones, this is where the Player would place their cards on the “Play Area”



# Pause System

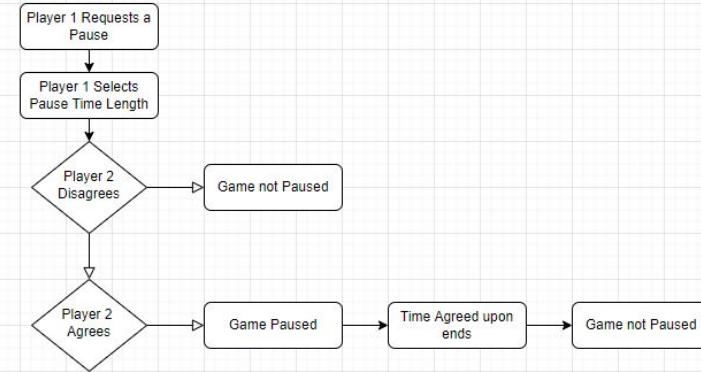
Our Mentor Mona had asked about the possibility of adding a “Pause” option to the game. However with the game being planned to be multiplayer this wasn’t an option.

I did however concept a possible pause system in which both players would have to agree to pause the game.

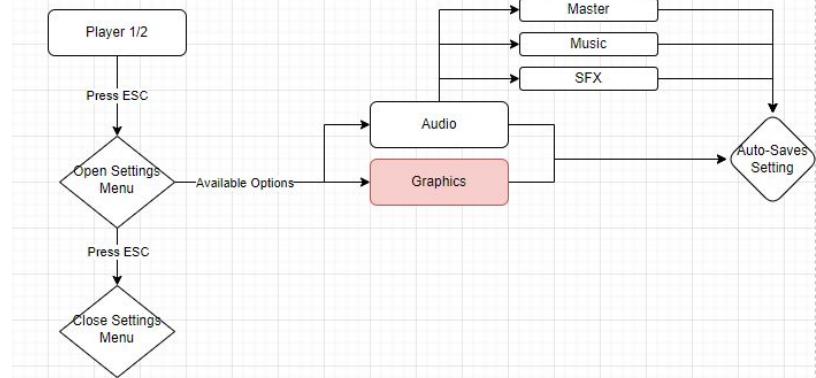
Additionally I concepted a in-game “Options” Menu. This would allow the player to change settings whilst in-game.

“Graphics” is highlighted in red here as it was not added.

## Multiplayer Game Scene Options Menu



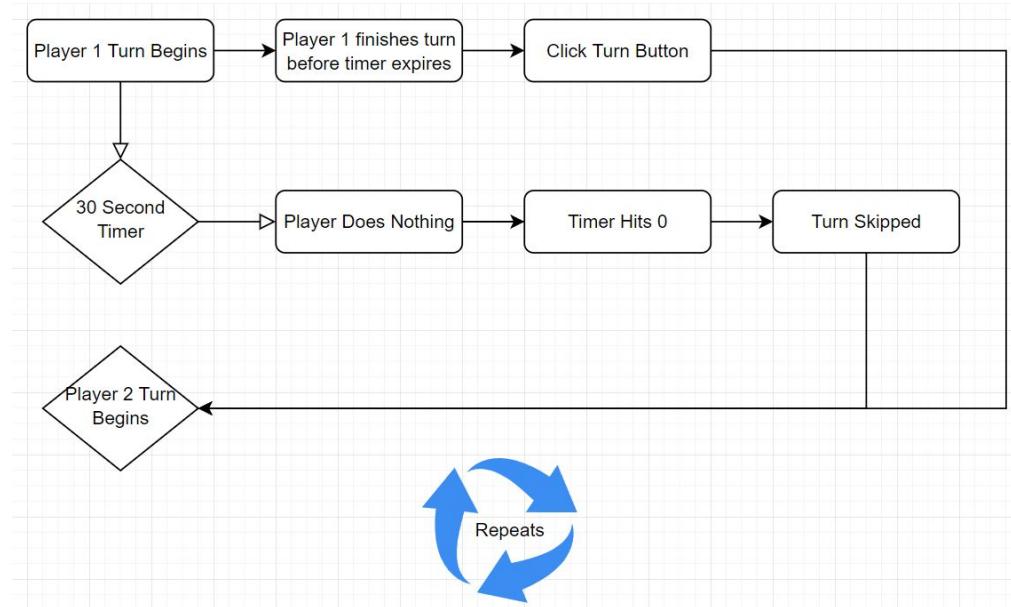
## Game Scene Options Menu



# Turn Timer

A new system I developed this sprint was the Turn Timer. This system allows the game to progress faster as the player cannot make their turn last forever.

Me and Adam both agreed on 30 seconds for this timer. Jack was able to implement the timer this sprint for our [week 8 update](#).

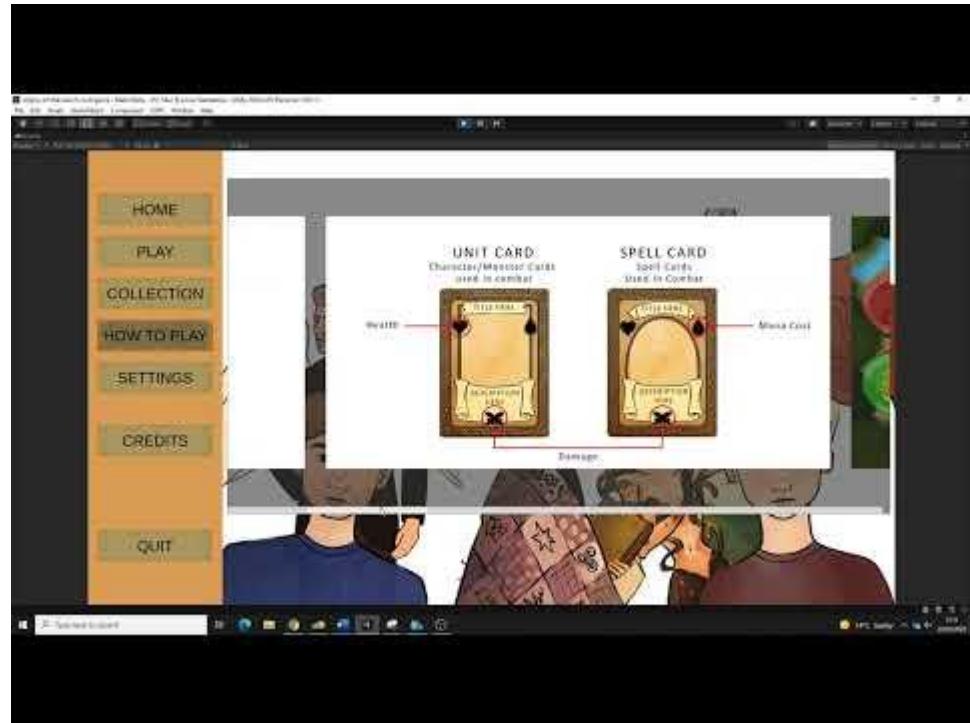


# Main Menu Updates

Later in the sprint, I revisited my Menu System and improved by scripting the interaction this time as it would be more dynamic and efficient this way.

I followed a video by [Game Dev Guide](#) to implement this system as programming is not my strongest skill.

As seen in the video, the “How to Play” had been filled out, I created very basic images as placeholders for the time being to introduce the player to the game.



---

# Client Update

At the end of Sprint 4, we had an update for the client, which was communicated over email, I created a slide-deck for them to view and a gameplay video to watch.



# 1st Year QA Testing

At the end of sprint 4, I sent another build for the 1st years to test.

Any bugs they reported were added under the below Epic, this Epic began in Sprint 5

▼ +	<a href="#">BDG-126 Alpha Development - Bugzilla</a>
■	<a href="#">BDG-130 3774 - Card draw stops after... <span style="background-color: #2e7131; color: white; padding: 2px 5px;">COMPLETED</span></a>
■	<a href="#">BDG-127 3918 - Cards multiple a... <span style="background-color: #2e7131; color: white; padding: 2px 5px;">COMPLETED</span> </a>
■	<a href="#">BDG-131 3934 - Cards disappearing <span style="background-color: #2e7131; color: white; padding: 2px 5px;">COMPLETED</span></a>
■	<a href="#">BDG-128 3943 - Friendly cards ... <span style="background-color: #2e7131; color: white; padding: 2px 5px;">COMPLETED</span> </a>
■	<a href="#">BDG-132 3908 - Card information blo... <span style="background-color: #2e7131; color: white; padding: 2px 5px;">COMPLETED</span></a>
■	<a href="#">BDG-129 3699 - Card information blo... <span style="background-color: #2e7131; color: white; padding: 2px 5px;">COMPLETED</span></a>
■	<a href="#">BDG-133 3925 - Collection screen / t... <span style="background-color: #2e7131; color: white; padding: 2px 5px;">COMPLETED</span></a>

## Origins of the Laoich – Read Me

### Overview

The second build shows off the main-menu and refined core gameplay.

### Run:

Open the “OOTL-Build” Folder and run “OriginsOfTheLaoichCardGame.exe”

### Controls:

Click & Drag - Mouse 1 (drag card from your hand to the play-area)

Attack – Mouse 1 (select opponent card)

Close Game – alt+f4

## Origins of the Laoich – Known Issues

### Card Elements

- Cards are drawn at random, however for now any card can be any person’s hand causing duplicates to be spawned.
- Cards can attack cards outside of their zone.
- Card Title Text not displayed correctly.

### Main Menu

- Button Background Assets don’t load on start/awake.

### Timer

- Timer does not display correctly.

### Win Conditions

- There is currently no win/defeat condition.
  - When you run out of cards or no longer wish to play, you must close the game completely. (alt+f4)

---

## Sprint Review

This sprint was probably our least productive, due to member illness for the second week on-top of a member being removed from the course and other members having coursework due next week, making it rather difficult to make progress as they needed to focus on their other module resulting in us falling behind. Nothing can be done to fix this as it can't be prevented, however, other members did well on covering.

---

# Sprint 5 - Alpha Development 2



# Production

Due to the events from last sprint causing us to fall behind in multiple areas, I asked the artists to complete their current tasks on the Jira as I wont be adding more until they are finished.

Sprint 5 runs into the easter break, as a group we all agreed to work over the break, however keeping it as light as possible to not strain ourselves too much. The artists agreed to work on UI art over the break, this includes Sprint 5 week 2 and Sprint 6 week 1.

# UI Asset List

As the artists will be developing UI art over the easter break I developed a document that contained all the assets that would be needed.

The colour coding seen here is the Artists assigning the assets to themselves.

I provided a video that would be of great use to the artists when developing some UI elements. The video shows a method for scalable art which will be very useful for us as we can then reuse elements for multiple panels, this both saves time and resources.

## User Interface Art Asset List

- Start Screen
  - Background Art (1920px x 1080px)
- Main Menu
  - Background Art (1920px x 1080px)
  - Button Background Panel (320px x 1080px)
  - Sub-Menu Background Panel (1600px x 1080px)
- Button Condition Art (275px x 75px)
  - Idle
  - Hover
  - Selected

Example:



Watch: [https://youtu.be/\\_-9MrJfbysM](https://youtu.be/_-9MrJfbysM) for scaling UI elements.

- Should make the process easier for the buttons/panels
  - e.g. If the size of a button/panel changes it means you won't have to re-draw it.
- Loading Screen
  - Background Art (1920px x 1080px)
  - Loading Animation (2048x2048)
- In-Game
  - Arena Art (1920px x 1080px)
  - Hourglass Asset (1:1 ratio, 2048x2048?)
- Victory/Defeat Screen (1920px x 1080px)
  - Simple Background
  - Text Focused, large "VICTORY" / "DEFEAT"

---

## Start Screen

I added this very simple start screen to the game.

I added this as a way to introduce the player to the game, with the title of the game being the main attraction.

A quit button and a text element saying how to start the game.

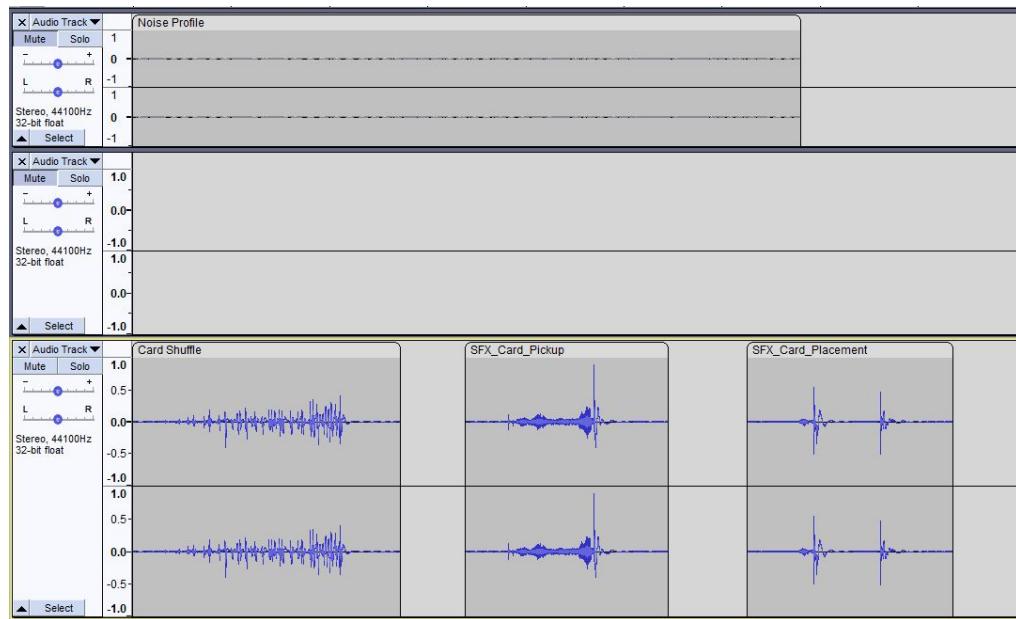


# Audio Creation

Using Audacity I was able to record a couple Card Sound Effects, I planned to create the Pickup, Placement and Shuffle sound effects for the project.

I did this for self-experimentation as mentioned we do not have an Audio Designer so I wanted to give it a go myself and attempt to develop some original sound effect for our project.

It took a couple takes before I got the correct settings after that I normalized the audio and applied the noise profile to remove access background noise.





I was able to create these Audio Elements using the Cards I used when prototyping my cards in sprint 2.

I played some Legends of Runeterra and Hearthstone to listen to how their Card Audio sounded so I could get some inspiration. I played games to just pickup and place cards to get a feel for their audio.



Card Pickup SFX



Card Placement SFX



Card Placement SFX

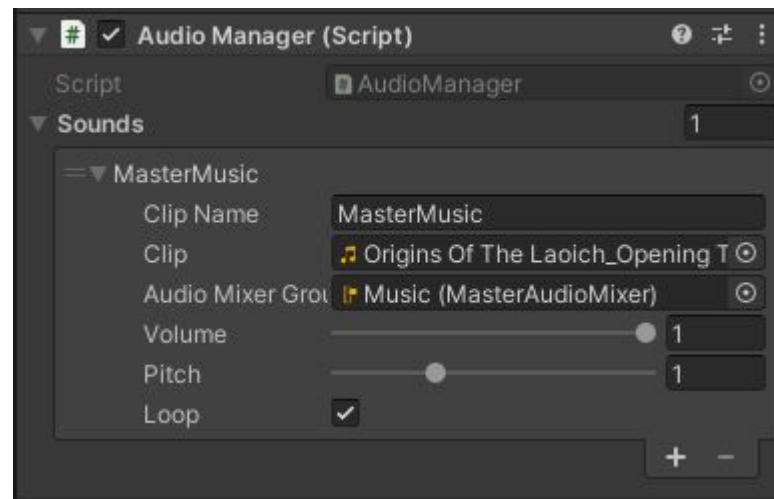
[Link to Audio Assets](#)

# Audio Implementation

For the easter break I decided I was going to implement the Audio I had sourced and created. I followed Brackeys video on [Audio Managers](#). This system was easier to follow and implement and allowed for me to add the Audio elements as needed.

I added in the Master Music for the Game to test the system.

The script allows me to change the volume, pitch and if the sample loops or not.



---

## Deck Building UI/UX

As zara was developing her deck building system I came to the realisation that there was no UI mockup for her to build upon so I developed 2 styles for her. We settled on a variation of style 1 and 2. We went with Style 2's Grid layout of Cards to increase the visual size of them to increase readability. As for the sidebar, we went with a scroll-view and again due to a unity limitation we were not able to stack to cards in 3's having to keep them as individual cards.

This is not the best user experience and it could have definitely been better but Unity's UI would not allow us to do it the way we wanted.

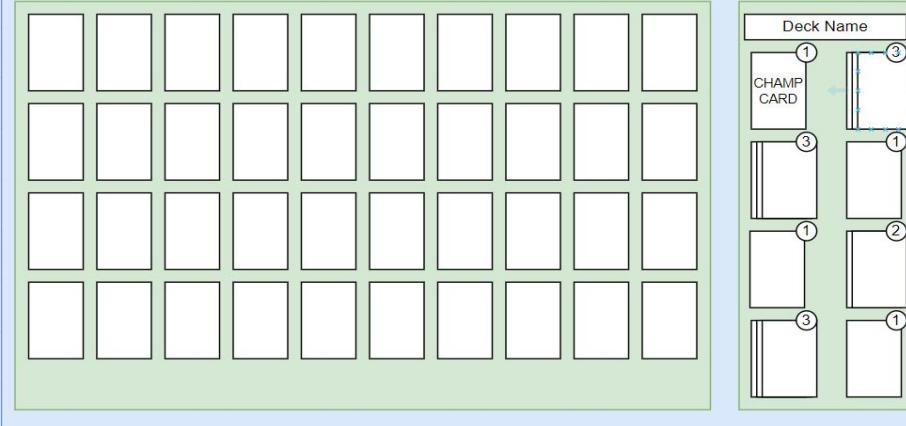
# Deck UI Concepts

## Deck UI

01

Cards are displayed in a stacked view, Champion Card is always at the top as it cannot be swapped or changed. A counter in the top left of each specific unity/spell card. The Deck name is displayed at the top and can be changed by the user, the total number of cards is displayed at the bottom.

Cards are added to the panel on the right by clicking a card in the left panel.



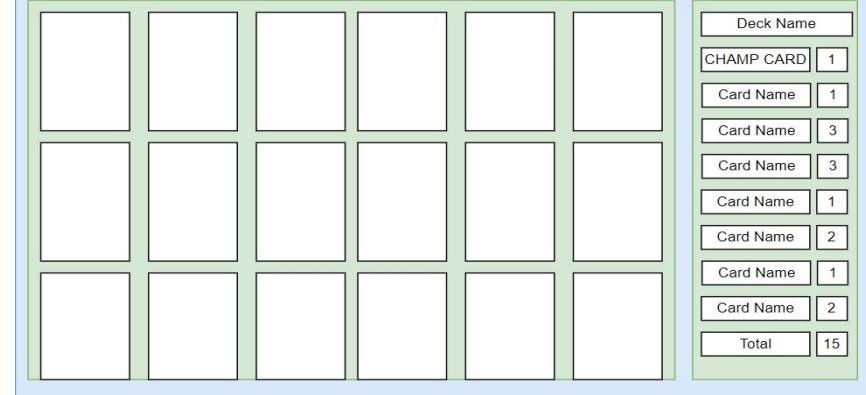
## Deck UI

02

Cards are displayed in a minimized grid view, Champion Card is always at the top of the card list as it cannot be swapped or changed. A counter in the top left of each specific unity/spell card. The Deck name is displayed at the top and can be changed by the user, the total number of cards is displayed at the bottom.

The card view on the left has larger cards for clarity, cards that go off-screen can be viewed by scrolling down the panel.

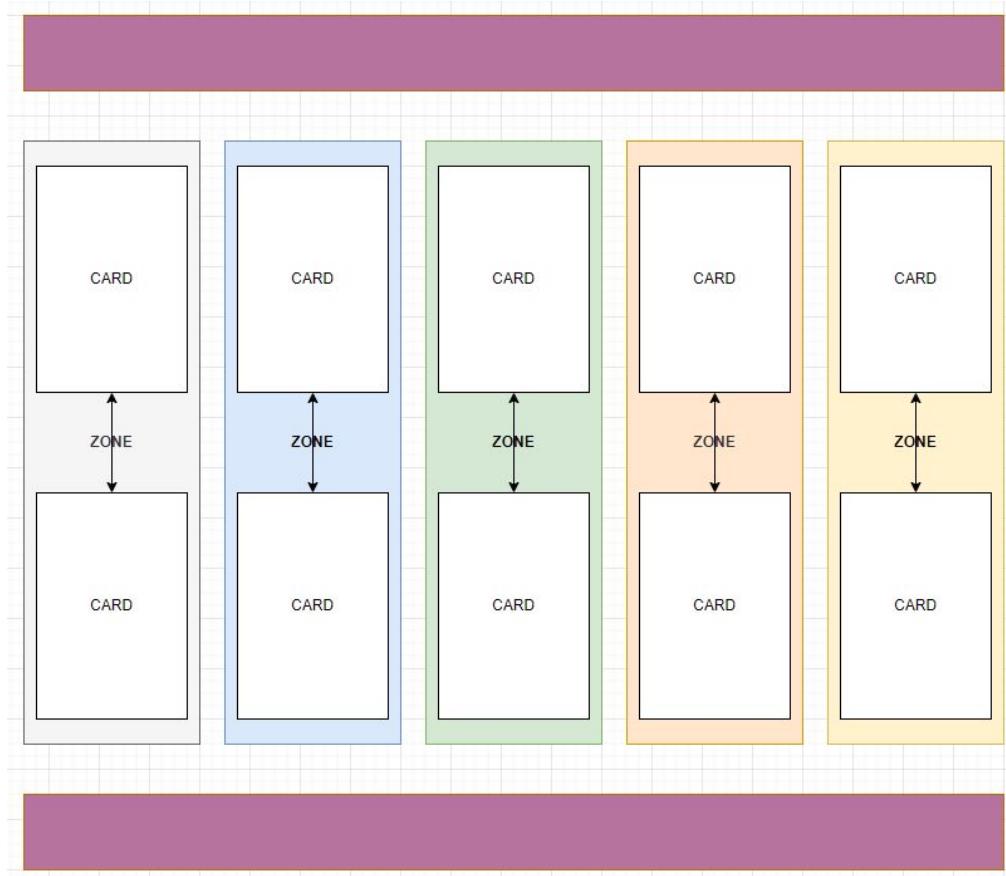
Cards are added to the panel on the right by clicking a card in the left panel.



---

# Attack Zone Update

Towards the end of the sprint we decided to deduct 2 Attack Zones for a total of 5, we did this as 7 was far too much to fit. Reducing it to 5 will help with the turn-timer as well, as only so much can be done in 30 seconds so having less zones to worry about works out better for the player.



---

## Sprint Review

A lighter sprint this time around, now that easter break is underway we are keeping the load light.

The Artists were able to catch-up for the most part with their assets that fell behind, only Stephanie had the Arena Art left to do but it has been delayed again till sprint 6

Jack has informed me that he will be looking into Networking and if it no longer seems feasible he will inform me and begin to implement AI.

---

# Sprint 6 - Alpha Development 3



# Production

At the start of sprint 6 Jack informed us that multiplayer would take far too long and the time we had left would not be possible, he did already have a back-up plan to move over to AI, so he did just that and immediately started on it.

We informed our Mentor of this decision and she told us we should have changed earlier but we were optimistic, an error on our parts that costs us some valuable weeks of development.

If we had of moved over to AI sooner we could have gotten much more done but switching this late only gives us 5 weeks of development so we agreed to keep it rather simple, with the goal of the AI to place cards and attack the player. It wouldn't make smart decisions and would rather just play a card that it can afford.

I moved the "Networking" story to cancelled and added "AI" as a new story. This story is expected to last until the end of Sprint 7.

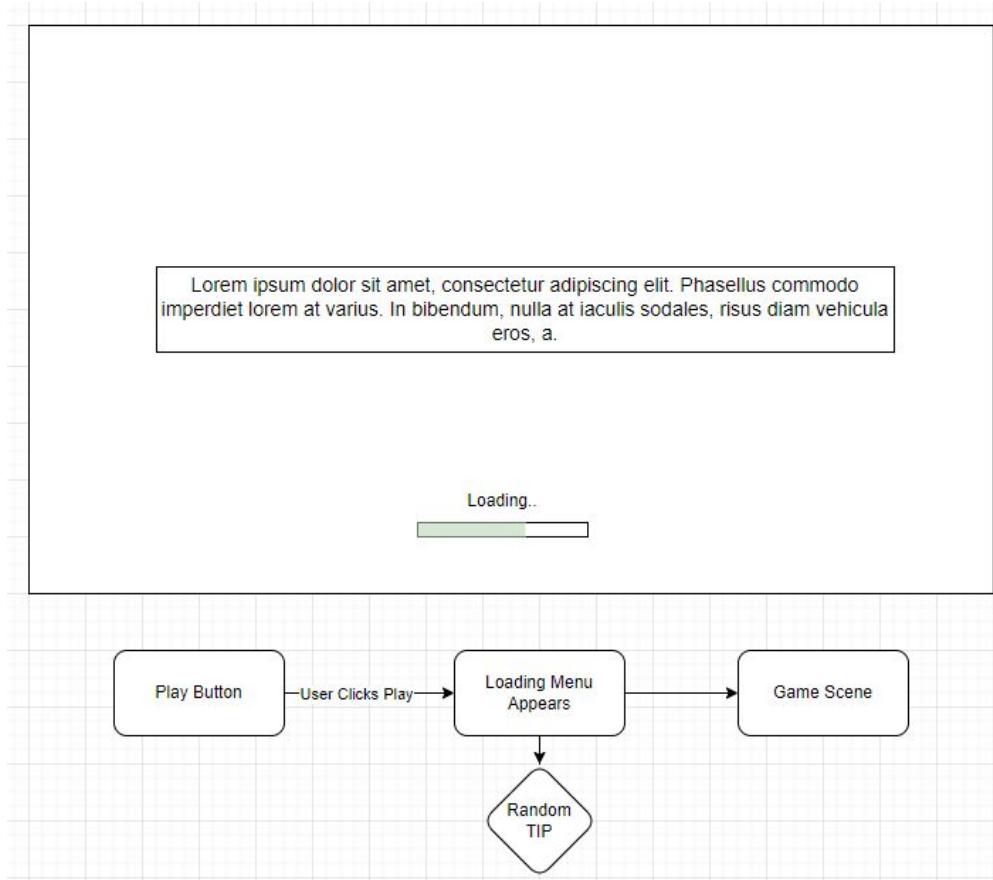
With being 1 programmer down, I had to split the "Turn System" between both programmers to spread the workload out.

# Loading Screen

I concepted a simple loading screen for the game, this would appear when the player clicked “Play Button” in the “Play Menu”

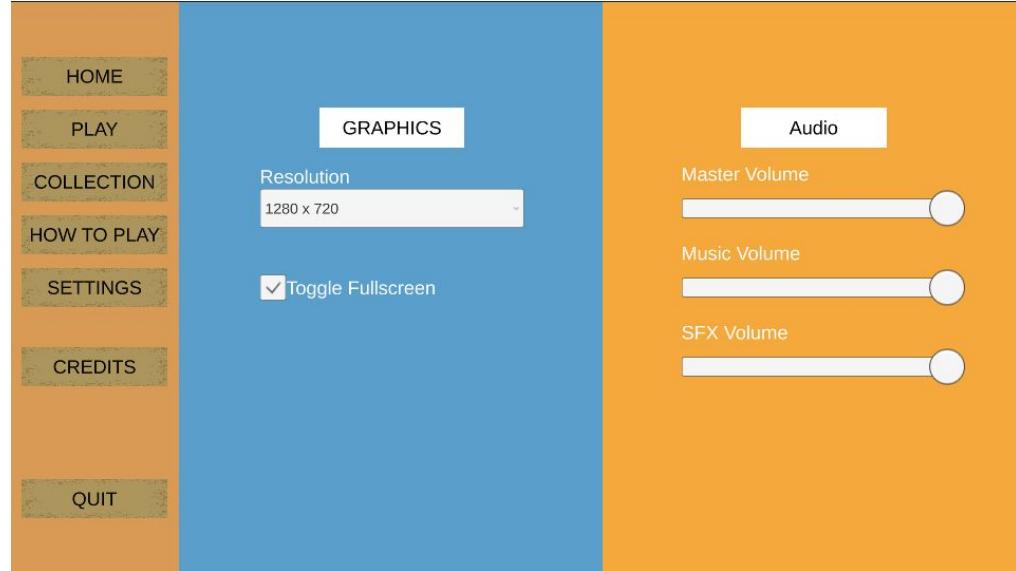
This would showcase a loading bar to indicate how fast the game was loading.

As to not have a blank screen I wanted to add simple “tips” to the game to give the player something to read whilst they waited.



# Accessibility

I developed a simple function that would allow the player to toggle the game between fullscreen and windowed view.

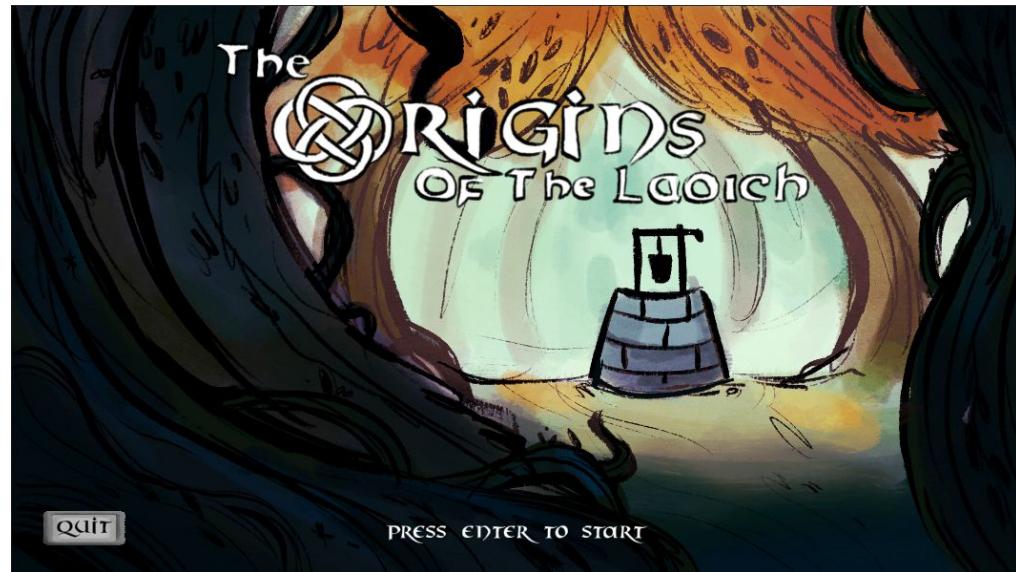


```
// toggle fullscreen and save it to PlayerPrefs
0 references
public void ToggleFullscreen()
{
    Screen.fullScreen = !Screen.fullScreen;
    PlayerPrefs.SetInt("Fullscreen", Screen.fullScreen ? 1 : 0);
}
```

---

# Star Screen UI Updates

I added the Placeholder background Image for the Start Screen, I also updated the text elements fonts to match to rest of the Menus.



---

# Main Menu UI Updates

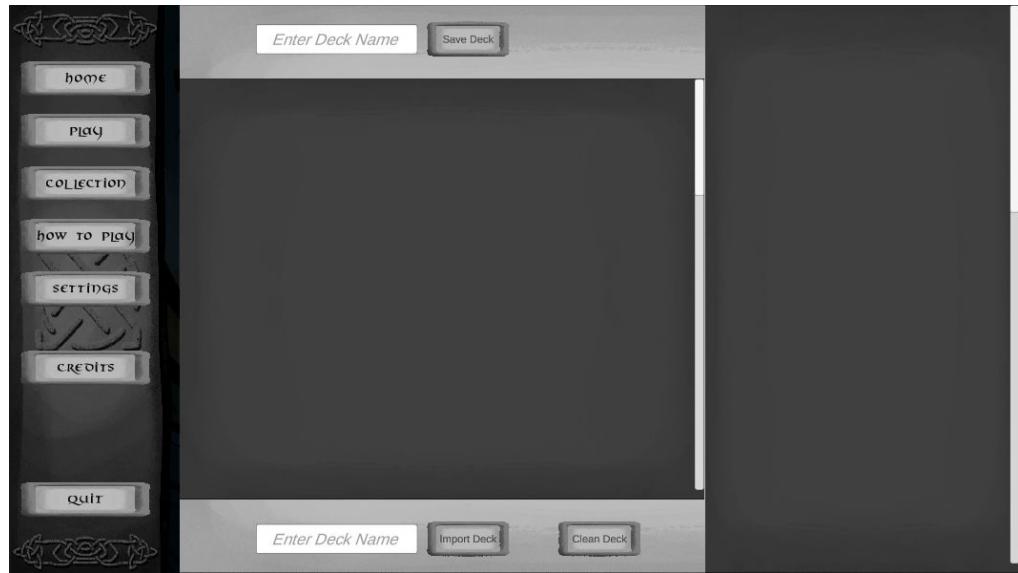
I updated the Main Menu with the new elements, I used the same background image here. The reason being to save on time and resources we decided to use the same image for all background elements.



---

# Deck Building Implementation & UI Updates

I took Zara's separate scene where she was developing the deck building and implemented it into the Main Menu, I also improved the UI elements used for it match the rest of the theming.



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# Game Scene UI Updates

I implemented the new UI assets for the Game Scene as well.

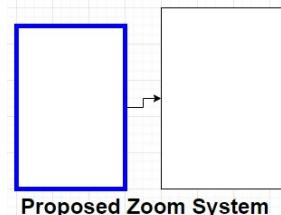


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# Card Zoom Proposed Changes

I wasn't a big fan of how the zoom feature currently functioned and many people felt the same way, it was rather distracting and took up way too much space.

I proposed these changes, however it would require a fair bit of re-writing scripts and that would take up extra time so we were not able to implement these changes.



When the user's cursor enters the cards area, the card itself is slightly enlarged.

This way the card does not take up as much screen-space as before



---

# Card Highlight Changes

To help give the player some better visual feedback I conceived a better way for the current highlight system to work.

We implemented the “Gray” highlight to indicate a card cannot be played as the play doesn’t have sufficient Mana to play it.

We did not add the “Red” highlight to cards in the play area that cannot be used to attack. Red is already being used when the player attacks with a card and we believe that once a player gets to know the game and reads the rules they will see and remember they cannot attack with a card that has just been played.

The “Green” Highlight was not included and we kept the default blue highlight when a card is in the hand.

## Visual Indicators

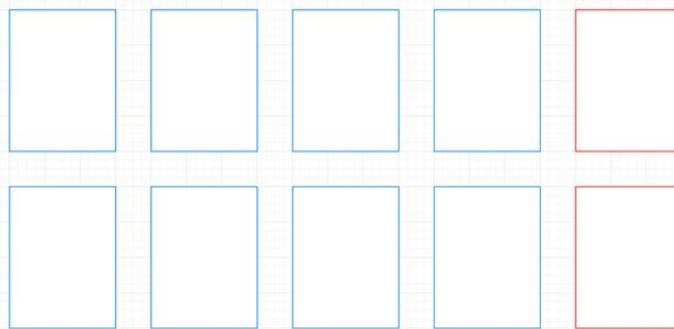
### Hand:

When a card is in the player’s hand, it can be played if it meets the mana requirements, which can be shown in green. If a card costs more Mana to place than there is available Mana, it would be highlighted in gray.



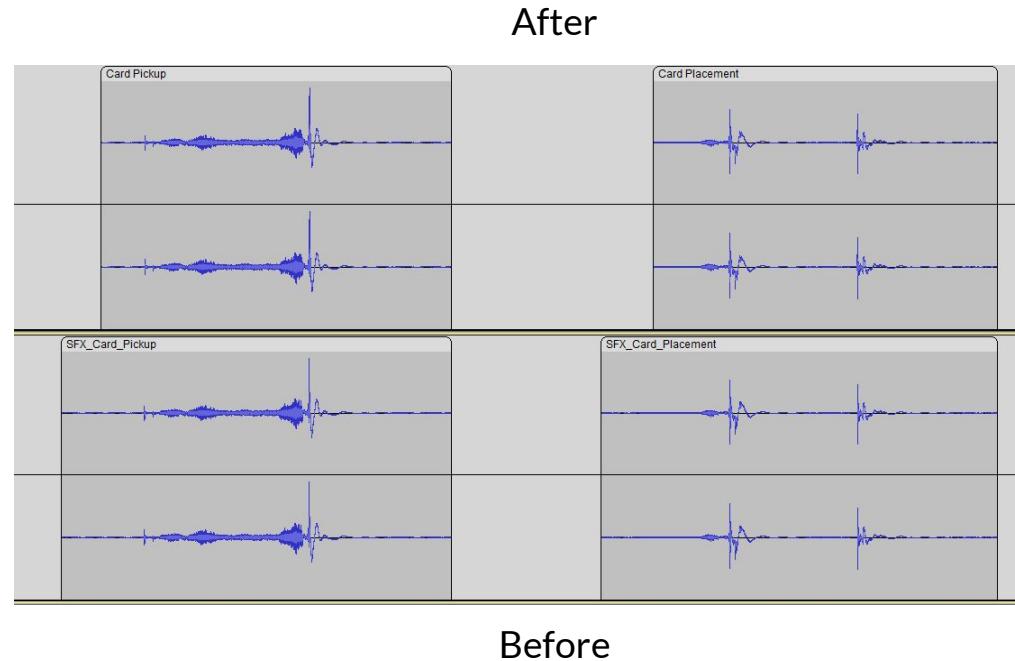
### Play-Area:

When a card is first played it cannot be used to attack until it has been in play for 1 turn, this can be shown with a red highlight on the card, indicating it cannot be used. Whereas the blue can be shown as a way to indicate that a card can be used in this turn.



# Audio Adjustments

I noticed that when playing the Audio that I had created had too much “dead space” At the beginning so I shortened the clips with the plan to implement them next sprint.



# Audio Asset Implementation

I added the Card Attack/Block this sprint, this image show the [Audio Manager](#) script component with multiple Audio Assets added to it.



# Audio Status

An updated view of my Audio Asset list as Alpha ends, it showcases the current integration stage as well as multiple different asset links that I have found.

Category	Subcategory	Asset Name	Integration	Scope	Source	Notes
Card SFX	Card - Pickup	SFX_Card_Pickup	Implemented	Essential	Custom made SFX	
		SFX_Card_Commander_Pickup	Not implemented	Stretch Goal		
	Card - Placement	SFX_Card_Placement	Implemented	Essential	Custom made SFX	
		SFX_Card_Commander_Placement	Not implemented	Stretch Goal		
	Card - Attack	SFX_Card_Attack	Implemented	Essential	Sword Hit: <a href="https://freesound.org/people/EminYILDIRIM/sounds/574612/">https://freesound.org/people/EminYILDIRIM/sounds/574612/</a> Sword Hit Metal: <a href="https://freesound.org/people/EminYILDIRIM/sounds/536108/">https://freesound.org/people/EminYILDIRIM/sounds/536108/</a>	CC 3.0 CC 3.0
		SFX_Card_Commander_Attack	Not implemented	Stretch Goal	Sword Hit Heavy: <a href="https://freesound.org/people/EminYILDIRIM/sounds/536104/">https://freesound.org/people/EminYILDIRIM/sounds/536104/</a> Sword Hit Medium: <a href="https://freesound.org/people/EminYILDIRIM/sounds/536105/">https://freesound.org/people/EminYILDIRIM/sounds/536105/</a> Impfenzi	CC 3.0 CC 3.0
	Card - Block	SFX_Card_Block	Implemented	Essential	Impfenzi	
		SFX_Card_Commander_Block	Not implemented	Stretch Goal		
	Card - Destroyed	SFX_Card_Destroyed	Not implemented	Essential		
		SFX_Card_Commander_Destroyed	Not implemented	Stretch Goal		
	Card - Ability Activation	SFX_Card_Ability_Activation	Not implemented	Essential	Relates to "Card - Spell" sfx section	
		SFX_Card_Commander_Activation	Not implemented	Stretch Goal		
	Card - Hover	SFX_Card_Hover	Implemented	Essential	Magic Aura Shimmer: <a href="https://freesound.org/people/EminYILDIRIM/sounds/547365/">https://freesound.org/people/EminYILDIRIM/sounds/547365/</a> Shimmering Object 2: <a href="https://freesound.org/people/opticallusions/sounds/521883/">https://freesound.org/people/opticallusions/sounds/521883/</a>	CC 3.0 CC 1.0
	Card - Spell	SFX_Card_Spell	Not implemented	Stretch Goal	Magic Spell: <a href="https://freesound.org/people/Kostas17/sounds/542825/">https://freesound.org/people/Kostas17/sounds/542825/</a> Healing Spell: <a href="https://freesound.org/people/EminYILDIRIM/sounds/563662/">https://freesound.org/people/EminYILDIRIM/sounds/563662/</a> Heal Short: <a href="https://freesound.org/people/EminYILDIRIM/sounds/587603/">https://freesound.org/people/EminYILDIRIM/sounds/587603/</a> Water Woosh: <a href="https://freesound.org/people/EminYILDIRIM/sounds/572025/">https://freesound.org/people/EminYILDIRIM/sounds/572025/</a> Water Elemental Magic Skill: <a href="https://freesound.org/people/EminYILDIRIM/sounds/572141/">https://freesound.org/people/EminYILDIRIM/sounds/572141/</a>	CC 3.0 CC 3.0 CC 3.0 CC 3.0 CC 3.0
					Water Magic Impact: <a href="https://freesound.org/people/EminYILDIRIM/sounds/578604/">https://freesound.org/people/EminYILDIRIM/sounds/578604/</a> Fire Magic Impact: <a href="https://freesound.org/people/EminYILDIRIM/sounds/578605/">https://freesound.org/people/EminYILDIRIM/sounds/578605/</a> Mage Fire Ball Skill: <a href="https://freesound.org/people/EminYILDIRIM/sounds/555519/">https://freesound.org/people/EminYILDIRIM/sounds/555519/</a>	CC 3.0 CC 3.0 CC 3.0
		SFX_Deck_Shuffle	Not implemented	Essential	Custom made SFX	

Sound Effect Status Report - Q3 2023					
		Implementation Status		Priority & Notes	
		Implemented	Not Implemented	Essential	Non-Essential
User Interface SFX	UI - Button Press	SFX_Button_Press_UI	Implemented	Essential	Imphenzi
	UI - Button Hover	SFX_Button_Hover_UI	Not Implemented	Non-Essential	
	UI - Slider	SFX_Slider_UI	Not Implemented	Non-Essential	
	UI - End Turn Button Press	SFX_End_Turn_Button_Press_UI	Implemented	Essential	Same Asset as "UI - Button Press"
	UI - End Turn Button Hover	SFX_End_Turn_Button_Hover_UI	Not Implemented	Non-Essential	
Store SFX	Coin/Currency	SFX_Coin_Hover	Not Implemented	Dropped	
		SFX_Coin_Click	Not Implemented	Dropped	
		SFX_Card_Purchase_Confirm	Not Implemented	Dropped	
		SFX_Card_Purchase_Deny	Not Implemented	Dropped	
	In-Game	SFX_Wind_Ambience	Not Implemented	Stretch Goal	
Ambience SFX	In-Game	SFX_Trees_Ambience	Not Implemented	Stretch Goal	
		SFX_River_Ambience	Not Implemented	Stretch Goal	
	Music	Start Screen Soundtrack	Music_Soundtrack_Start_Screen	Implemented	Stretch
		Main Menu Soundtrack	Music_Soundtrack_Main_Menu	Implemented	Essential
		Loading Screen	Music_Loading_Screen	Not Implemented	Non-Essential
		In-Game	Music_In_Game	Implemented	Essential
			Music_Victory	Not Implemented	Essential
			Music_Defeat	Not Implemented	Essential
			SFX_Victory	Implemented	Essential
			SFX_Defeat	Implemented	Essential
Dialogue	Commander	Dialogue_Commander_Game_Start	Not Implemented	Stretch Goal	
		Dialogue_Commander_Damage_Taken	Not Implemented	Stretch Goal	
		Dialogue_Commander_Victory	Not Implemented	Stretch Goal	
		Dialogue_Commander_Defeat	Not Implemented	Stretch Goal	



# Client Update

With Sprint 6 ending, this marks the end of Alpha Development, I made a gameplay video and a voiced over video.

I also prepared another slide-deck with information on our recent progress.

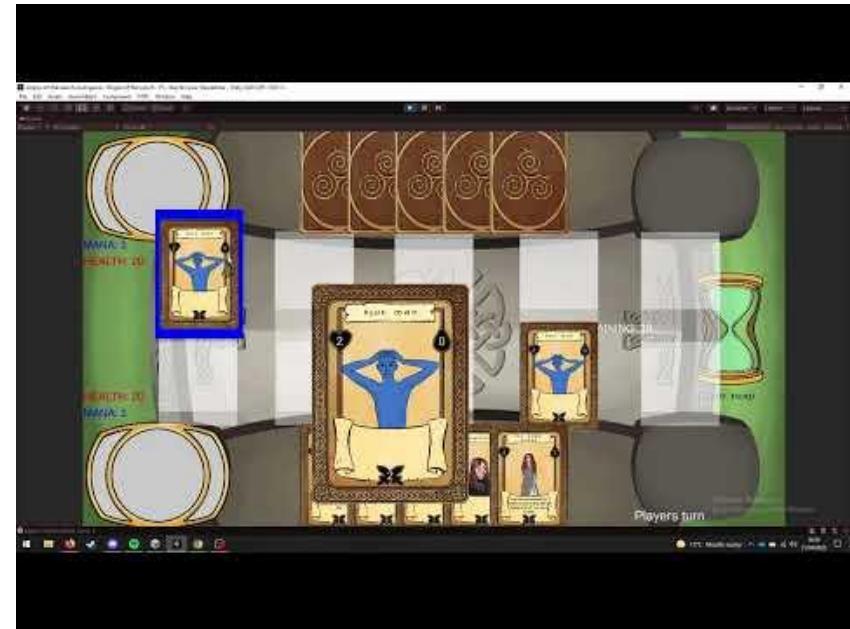
The client had 1 piece of feedback and it was to update one piece of arts clothing to reflect the shows piece, which I passed onto Rachael as this was her character to update.

---

## Silent Gameplay



## Voice-Over Gameplay



# 1st Year QA Testing

sprint 6 concludes our Alpha development,  
I sent another build for the 1st years to test.

[Origins of the Laoich – Read Me](#)

Version: 0.2.0 (Alpha)

## Overview

This third build showcases the Main Menu, Core Gameplay and Audio elements.

Please check the [OOTL-Known\\_Issues](#) document for a list of both resolved and un-resolved issues.

[New]

All Art Placeholders

Audio Placeholders

- Main Menu
  - o Collection (Implemented, doesn't work 100%)
  - o Settings
    - Graphics (Fullscreen Toggle)

- Audio
  - o Card Attack SFX
  - o Card Block SFX

- In-Game

- o AI
  - Places Cards
    - Can't Attack

- o Arena Art
  - Final Placeholder Arena Art added

- o Card Art
  - Card Descriptions

- o Card Abilities
  - Not all cards have working abilities to match their descriptors.

- o Turn Timer
  - 30 Seconds Per Turn
  - Now has a visual (hourglass)

- o Settings Menu
  - Adjust Audio Volumes
  - Leave Game Button

- o Victory/Defeat
  - Currently, the way to win/lose it the first to run out of cards loses.

Core Changes:

- AI > Multiplayer

## Origins of the Laoich – Known Issues

Version: 0.2.0 (Alpha)

### Card Elements

- Cards are drawn at random, however for now any card can be any person's hand causing duplicates to be spawned.
- Card Placement Audio plays when the card is dragged and not when the card is placed.

### Main Menu

#### Play Menu

- Deck Selection drop-down does nothing.

#### Collection Menu (Broken)

- When dragging the Card from the left section to the right, the card does not get placed in the right section. This means you can't save a deck currently.
  - o Whilst Decks can be created/saved, they currently aren't imported into the game itself.

#### Settings Menu

- Fullscreen toggle checkbox does not save.
- Audio Sliders
  - o When you drag the Audio all the way to the left, the volume resets and is on full.

### Timer

- Timer's position is currently placeholder and due to be moved.

### In-Game

- Mana stops being added once the max of 9 has been reached and the spent.
- AI Cannot Attack
- AI sometimes gets hung-up and doesn't place a card
  - o You just must wait for the turn to end before it is yours again.
- Player Health/Mana/Icon is currently blank.
  - o Placeholder text has been added to show the Health/Mana
- Player can still not take damage themselves.
- Sometimes the Attack Zone, will subscribe to the incorrect one, this means you won't be able to attack that card even though it is in the same zone as yours.
  - o You can either restart the game or try to attack it with a card from a different zone.

### Win Conditions

- When you run out of cards you lose, if the AI runs out of Cards before you, you Win.
  - o This is a current work around to let there be a Win/Defeat condition.

# Win Conditions

As seen in the [previous videos](#), we didn't have any victory/defeat implemented yet.

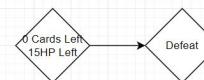
We knew from the start that the main goal to win would be to reduce your opponents HP to 0.

I experimented with an alternative way to win/lose. For simplicity the "Instant Defeat" is the easiest to implement and we decided to go with that method in the upcoming sprint, however the gradual defeat is far more forgiving to the player and would be the preferred method to implement.

Opponent's deck is empty, resulting in an instant defeat

## Instant Defeat

This system is the "punisher" defeat, it punishes the player who runs out of cards available to them first by making them lose the game.



## Pros/Cons

[Pro] - Shorter Game

[Con] - No comeback chance

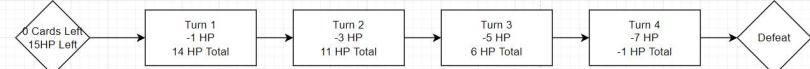
Opponent's deck is empty, resulting in a gradual defeat

## Gradual Defeat

This system is the "Pity" defeat, when the player runs out of cards available to them, each new turn cycle removes HP until they eventually reach 0 and lose.

This system allows the player the potential to comeback, even if the odds are heavily against them.

Each new turn, the damage dealt increases by \*2, allowing for multiple turn cycles to be conducted before they are defeated.



## Pros/Cons

[Con] - Longer Game

[Pro] - Comeback chance



## Sprint Review

Adam caused some issues this sprint as he added Cards to his Deck but never told myself or the artists so there was no Art produced for them. So I had no choice but to remove them from the game. Adam is also falling behind with his gray box of the scene so that Rachael could produce an art piece for it, since he took too long she had to go ahead and make one.

Jack made good progress with card abilities, however not all were implemented so I wasn't able to add the Audio Assets in for them.

Zara made good progress with deck building this sprint and it is nearing completion.

The artists finished all their placeholder art for the Cards and UI elements.

Overall a very good sprint, we got a lot done for our Alpha development, not everything is perfect as there are still bugs and issues with some systems but Sprint 7 is our Polish sprint where we will no longer add new features and work on fixing what we have.

---

# Sprint 7 - Polish



# Production

As mentioned, Sprint 7 marks our Polish Sprint, no new features are to be added and we are only to work on what we have. I created an Epic called “OOTL-Polish”, this epic runs from sprint 7-8 since Sprint 8 is only 1 week and is basically a polish week I added it along.

Jack worked on Polishing the AI, finalising the Card Abilities and finally working on adding some Card Animation for when the player Attacks and when a Card Blocks.

Zara worked on finishing the Deck Building.

Adam is worked on improving the “How to Play” as it had placeholder images with outdated information.

The Artists finalized their art pieces and Rachael is worked on some Animation to polish of the game.

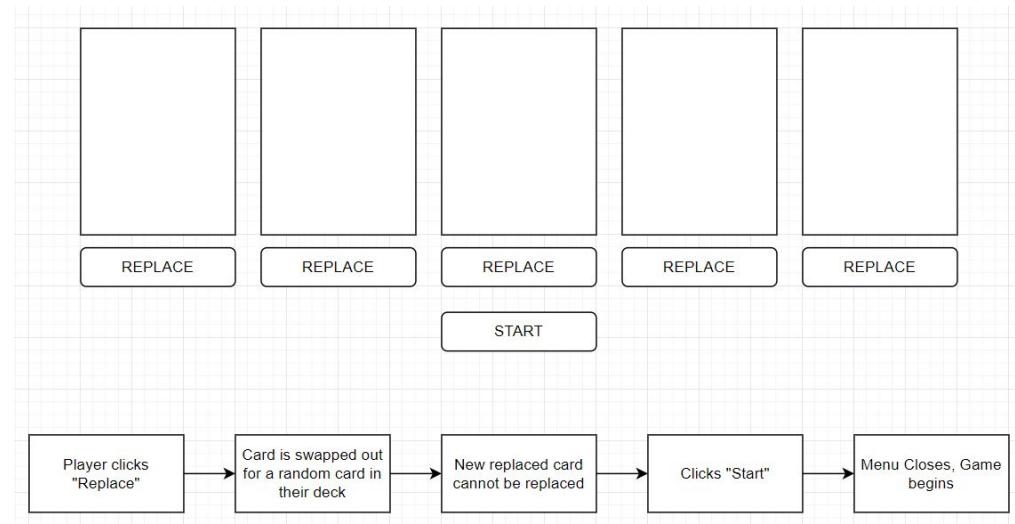
We do still have 1 extra week after this Polish sprint for emergencies and final fixes and of course if people ended extra time with development.

---

# Card Exchange

I decided to drop the Card Exchange system, now that we are in Polish it was unlikely it would get added so I made decision to drop it.

It would have been a nice feature to include, however it does not affect the gameplay too strongly.





# Documentation

I asked Adam to update the documents to reflect that we are no longer doing Multiplayer, as the sprint came to a close he did not do this so I had to update them myself.

It didn't take long to update the documents as I just had to swap "Multiplayer" with "AI" for most cases.

Version 1.1.0	<ul style="list-style-type: none"><li>• Updated whole document to reflect AI (J)</li></ul>	Date: 26/04/22
Version 1.1.1	<ul style="list-style-type: none"><li>• Updated Game Overview (J)</li><li>• Updated Game Assets (J)</li></ul>	Date: 27/04/22

# Audio Adjustments

As mentioned [here](#) I implemented the adjusted audio files into the project.

I also added in the Victory and Defeat Music.

BDG-146

[Adjusted] Replaced Card Attack/placement SFX with new SFX  
[Added] Victory/Defeat Music

 Joe Mackle authored 26/4/2022 @ 14:44 parent: 69a5eb

5 modified + 2 added

↑ A Path Tree View all files

- + Assets/Resources/Audio/Music/Victory-Defeat/Music\_Victory\_Defeat.mp3
- + Assets/Resources/Audio/Music/Victory-Defeat/Music\_Victory\_Defeat.mp3.meta
- ✎ Assets/Resources/Audio/SFX\_Card/SFX\_Card\_Pickup.wav
- ✎ Assets/Resources/Audio/SFX\_Card/SFX\_Card\_Placement.wav
- ✎ Assets/Scenes/Start Screen.unity
- ✎ Assets/Scripts/GameManager.cs
- ✎ UserSettings/EditorUserSettings.asset

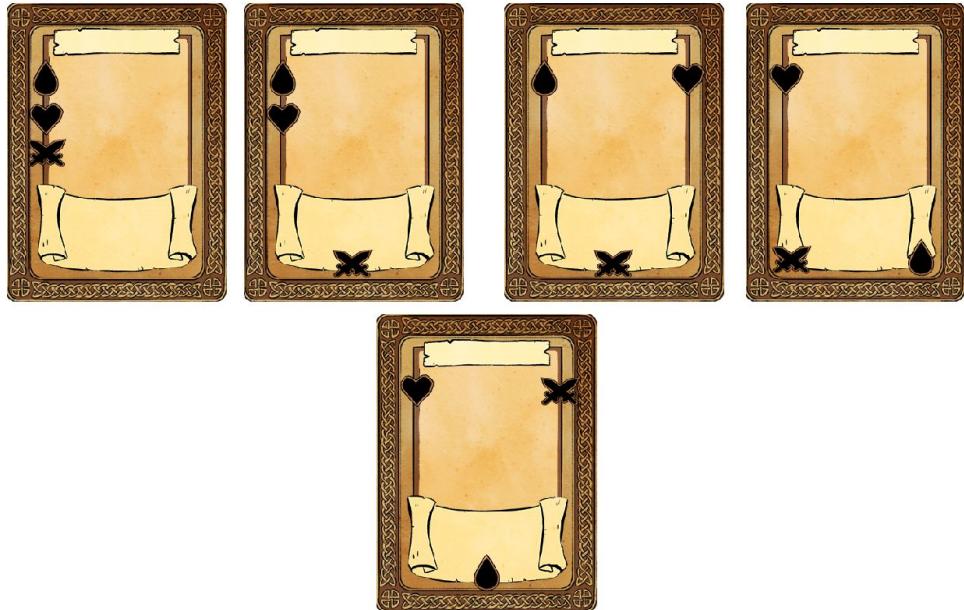
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# Card Layout Design

At the start of the Sprint, the University hosted a “Play Party” where teams could showcase their games and get feedback.

For the most part people enjoyed our game, although it was very buggy and some features weren’t working.

One thing that got mentioned a lot was our Card Layout, people found the positioning of the “Statistics” Health/Mana/Damage confusing. I took this into consideration and concepted a few new layouts

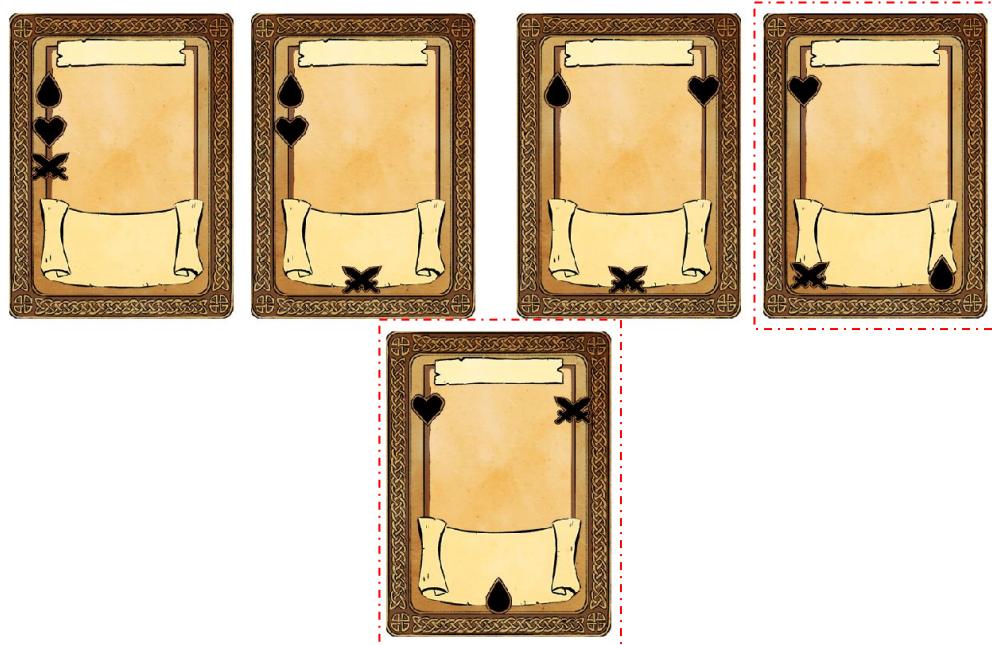


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# Card Layout Feedback

I sent out this image people who had tested the game to get their feedback. The card highlighted in red came back as the majority favoured.

In the end I went with the bottom image, as it was a more unique layout that people still liked.



---

## Further Card Improvements

After the initial feedback, some players had mentioned that adding colour to the Statistic Icons would also be helpful.

I agreed with them, adding colour to these icons especially already recognisable colours would improve the look of the card and help players immediately tell what icon is what. I asked rachael to come up with some mock-up colour styles following the below logic.

Looking at Hearthstone and Legends of Runeterra, they use similar colours for their icons.

- Blue = Mana
- Red = Health
- Orange/Yellow = Damage

---

## Artist Colour Renders

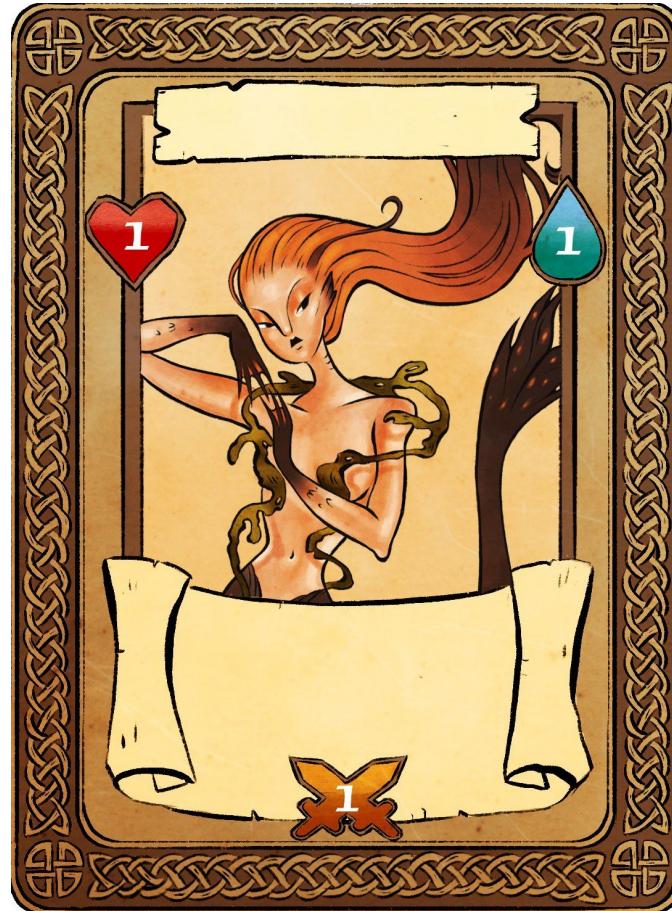


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## Final Card Layout

After some more feedback we settled on this look, the majority of people who seen the previous 3 renders preferred this version.

We all agreed it definitely added more character to the cards and improved their readability.



One final adjustment I made was to change the font being used for these Statistics and Descriptions. I opted for “Open-Sans” as it improved readability compared to original font.

I kept the title of the cards as “Mael” to make them stand out more.

Before



After



---

## Audio Adjustments

I was able to add in the Ability SFX this sprint as Jack had the outlines for each ability there.

- =► SFX\_CardAbility\_Generic
- =► SFX\_CardAbility\_Heal
- =► SFX\_CardAbility\_Howl
- =► SFX\_CardSpell\_TidalWave

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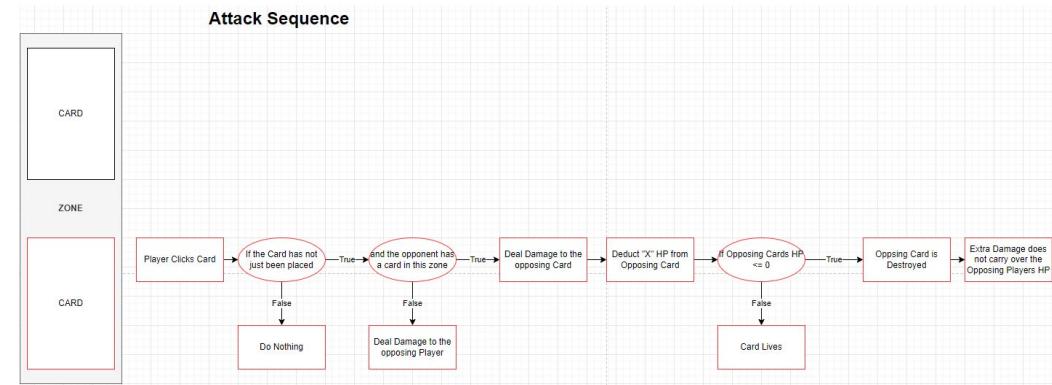
# Start Screen UI Updates

I updated the Start Screen UI to the finalised version and included the animation that Rachael had produced.



# Attack System Updates

To clarify the updated Attack System, I created a flowchart of how this new system should work for the final product. This system follows the “Inscription” and “Legends of Runeterra” system. Originally the player would have Clicked their Card and then Picked the enemy card to Attack, this proved to be difficult for the AI integration so we opted to remove targeting in favour of a “Direct Hit” system, where the player simply just clicked the card they wanted to attack.



# Card Iteration

During the Polish sprint I reworked my cards to fit the new Attack System.

This affected the card abilities as well as they required “targeting” so they needed to be reworked to reflect the new attacking system.

## Digital Prototype 1

### Unit Concepts

Unit Card Name	Mana Cost	Damage	Health	Ability	Art
Effie	4	3	3	When played, Heal all Damaged Allies by +1	YES
Bruce	1	1	1	N/A	YES
Kristine	1	1	1	N/A	YES
Morag	3	1	2	When Played Empower 1 Ally to the left (+1/+1) for 1 turn	YES
Gregor	4	2	3	Cleanse all effects on 1 Ally to the right	YES
Matthew	5	3	3	When summoned Weaken an Enemy Attacker by -2 Damage.	YES
Lachlan	6	3	4	When Destroyed replace with a OM/2D/2HP Changeling	YES
Changeling	0	2	2	N/A	YES
Arvil	7	5	4	When Destroyed summon Carwen in Hand	YES
Carwen	7	5	4	When Destroyed summon Arvil in Hand	YES

### Changelog:

- [Adjusted] Removed “targeting” in favour of direct zone interactions.
  - For the ease of implementation, removing targeting was discussed and favoured among the programmers. This new style of interaction allows the card to do as the description says. This also helps with simplicity for the AI.
- [Adjusted] Matthew >> to when **summoned** rather than when blocking.

### Spell Concepts

Spell Card Name	Mana Cost	Damage	Health	Ability	ART
Water Healing	2	0	0	Heal 1 Ally to the right for +1HP	YES
Water Bubble	4	0	0	Enemy Unit Cannot Attack this Round	YES
Tidal Wave	8	0	0	Deal 2 Damage to all Enemy Units	YES
				Heal all your Units by +2HP	
Take Aim	2	2	0	Deals 2 Direct Damage to the player	YES
Targe	3	0	0	Strengthen Ally to the right by +2HP	YES

### Changelog:

- [Adjusted] Removed “targeting” in favour of direct zone interactions.
- [Adjusted] Changed Take Aim ability to “Deals 2 Direct Damage to the player”



## Deck Building Fixes

Whilst doing some testing myself and sending the build to my friends I was informed of a major bug that caused everyone I sent it to issues. The deck Building System did not work.

I browsed around Stackoverflow and the Unity Forums for answers but couldn't immediately find an answer.

I contacted a friend and class colleague Liam Rickman (1902527) as I knew he had issues similar to this before and he was able to help debug the issue and we resolved it after a few hours.

The issue seemed to be where Zara was originally saving the files to the Build version of the game could not access, so it had to be stored on the users pc itself for the build to read/write too.

Code snippets on the next slide.

 Red = Old, Green = New

To solve the issue the file location had to be changed to “persistentDataPath” aka the PC itself. Other scripts where it mentioned this file path were updated accordingly.

We then conducted testing to confirm it worked and it did.

```
@@ -83,14 +83,14 @@
83     // a function to export CustomDeck to a text file
84     public void ExportDeck()
85     {
86         string path = "Assets/Resources/Decks/" + DeckNameInput.text + ".txt";
86+        string path = Application.persistentDataPath + "/Decks/" + DeckNameInput.text + ".txt";
87         System.IO.File.WriteAllLines(path, CustomDeck.Select(x => x.GetComponent<CardStats>().CardAsset.name).ToArray());
88     }
89
90     // a function to import a text file to CustomDeck
91     public void ImportDeck()
92     {
93         string path = "Assets/Resources/Decks/" + ImportInput.text + ".txt";
93+        string path = Application.persistentDataPath + "/Decks/" + ImportInput.text + ".txt";
94         // string path = "Assets/Resources/Decks/id test deck.txt";
95         List<Card> cardList = System.IO.File.ReadAllLines(path).ToList().ConvertAll(item => (Card)Resources.Load("Cards/" + item));
96     }
```



# Press Kit

I started to build out the Itch Page more and add in some game information, team members and outsourced assets.

I also began to analyse trailers for card games so I could get an understanding of what I should include in our trailer.

[Hearthstone Trailer](#)

[Legends of Runeterra Trailer](#)

[Start]

5 second intro { Blackgdog Games, Abertay, SillyWeeFilms logos }

30 Second Gameplay Showcase?

10 Seconds of Card Art showcase?

10 Seconds Deck Building Showcase?

5 second outro

- Play free at "link"

[End]

# 1st Year QA Testing

sprint 8 concludes our Beta development, I sent another build for the 1st years to test.

## Origins of the Laoich – Read Me

Version: 0.3.0 (Beta)

### Overview

Please check the QOTL\_Known\_Issues document for a list of both resolved and unresolved issues.

If the OneDrive file fails to work, try the [GoogleDrive](#) download.

### [New]

Final Art

Final Audio

- Main Menu
  - o Collection
    - Deck Building now functional

- Audio
  - o Card Destroyed
  - o Card Shuffle
  - o Card ability SFX

- In-Game
  - o
  - o Arena
    - Timer Text Moved
    - Health/Mana UI now updates
  - o Card Art
    - Card Icons layout adjusted
    - Card Icons improved
    - Font adjusted for descriptions/Costs
  - o Card Abilities
    - Multiple card abilities added.
  - o Victory/Defeat
    - Currently, the way to win/lose it is to run out of cards.

## Origins of the Laoich – Known Issues

Version: 0.3.0 (Beta)

### Card Elements

#### Abilities - [Focus Test]

- There are multiple different abilities attached to cards now.

### Main Menu

#### Collection Menu - [Focus Test]

- Players can now create their own decks and use them in the game.
  - o It should only allow a maximum of 30 cards to be used.
  - o It should also only allow 3 of each individual card to be added to the deck.

### Settings Menu

- Fullscreen toggle checkbox does not save.

### In-Game

- Mana stops being added once the max of 9 has been reached and the spent.
- AI Cannot Attack
- AI sometimes gets hung-up and doesn't place a card
  - o You just must wait for the turn to end before it is yours again.
- AI abilities don't
- Card hover is currently broken, some elements are misplaced.

### Win Conditions

- When you run out of cards you lose, if the AI runs out of Cards before you, you Win.
  - o This is a current work around to let there be a Win/Defeat condition.

---

## Sprint Review

Me and Rachael discussed on her Animations that was planned for the “[Loading Screen](#)”, she was going to produce a small animation of the “O” in “Origins” to spin as it loaded, however the loading screen is only displayed for a short period of time so we decided best to not do an animation as it wouldn’t be seen that often and she could direct her time to other animations.

Adam took far too long to produce the “How to Play” images that were needed so I was not able to include them in the build. I informed him of this and told him I needed them ASAP, as the client would be reviewing that build and it may cause confusion as it has outdated information.

---

# Sprint 8 - Polish



# Production

We had a client meeting on the 12th of May to review our Beta. Overall the client was very happy with how the project had turned out.

He had a couple concerns related to player-introduction. As mentioned in [Sprint 7's review](#) Adam caused a delay with the "How to Play" section which the Client could have used as he had difficulty understanding the game.

To compensate for this, I shared my screen of the most up-to-date version I had which had the images Adam was supposed to provide and showed them off as well as played through the game to answer any questions the Client may of had.

One thing both the Client and Mona had suggested is adding the ability to toggle the "card backs" off so the player the could see what cards the AI had in its hand, a sort of accessibility feature. Unfortunately we did not implement this as we had other issues to attend to and final fixes to make.

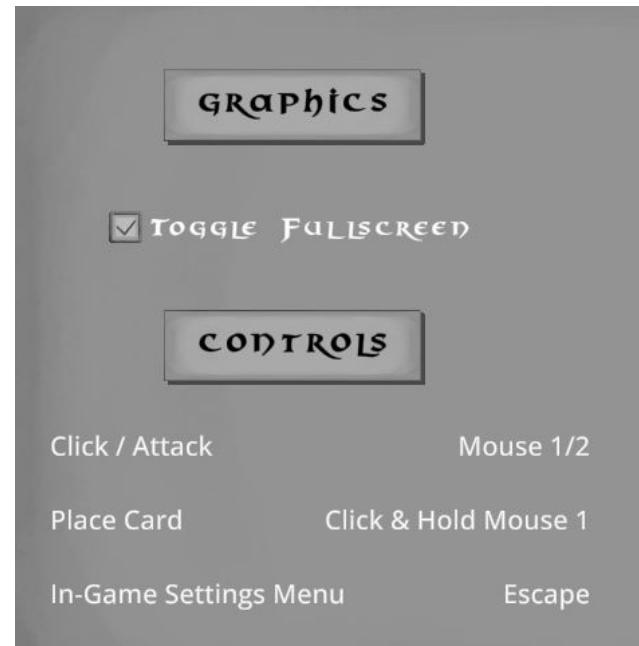
## Final Polish

For the final week, I spent some time adjusting the import settings of the various art to improve the quality as up till now it was on default settings and some of the quality was being washed out.

I adjusted the buttons to be correctly displayed and added the controls to the settings menu, they aren't adjustable but there was empty space left for them.



Adjusted buttons



*Controls added to settings Menu*

I re-recorded some videos for the “How to Play”, as the ones Adam had recorded were low quality or corrupted and were not usable.



# Card Iteration

I was able to test the game in the final days with different people, an issue some had was the abilities in cards were not consistent and or hard to understand so I spent some time improving their consistency with wording and numbers.

Some cards were also too weak so I adjusted their values to make them a better choice when playing.

## Unit Concepts

Unit Card Name	Mana Cost	Damage	Health	Ability	Art
Effie	4	3	3	"When Played, Heal all Damaged Allies by 1HP"	YES
Bruce	1	1	1	N/A	YES
Kristine	1	1	1	N/A	YES
Morag	3	2	2	"When Played, Empower 1 Ally to the left 1HP/1Damage"	YES
Gregor	4	2	3	"When Played, Restore 1 Ally to the right"	YES
Matthew	4	4	3	"When Played, Weaken an Enemy Attacker by 2Damage"	YES
Lachlan	5	3	4	"When Destroyed, Replace with a 2HP/2Damage Changeling"	YES
Changeling	0	2	2	N/A	YES
Arvil	7	5	4	"When Destroyed, Draw Carwen to Hand provided they are in your Deck"	YES
Carwen	7	5	4	"When Destroyed, Draw Arvil to Hand provided they are in your Deck"	YES

## Changelog:

- Adjusted all Abilities to be more clear
- Adjusted Morag Damage +1
- Adjusted Matthew Mana Cost -1, Damage +1
- Adjusted Lachlan Mana Cost -1

## Spell Concepts

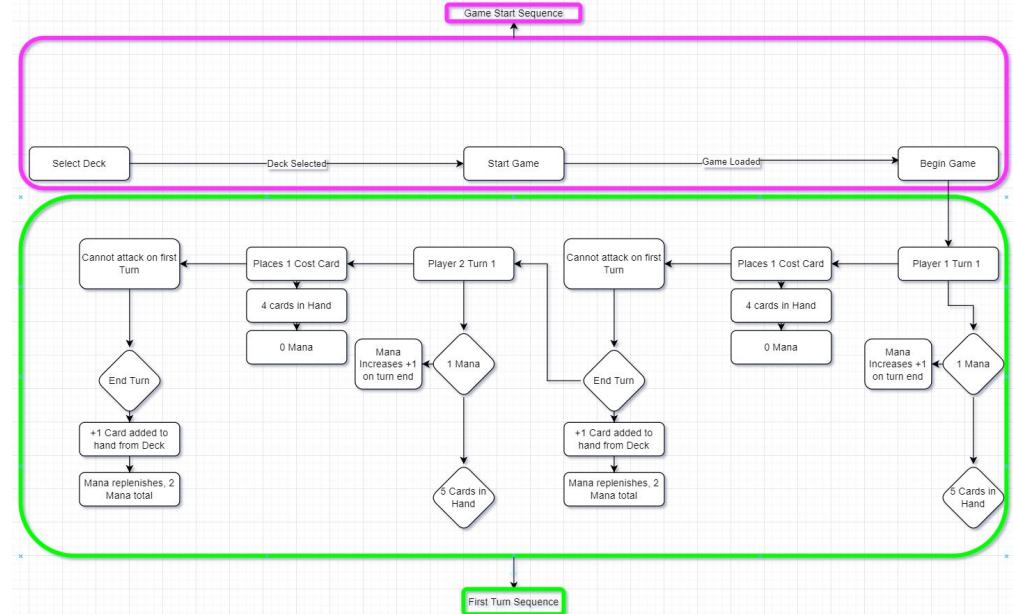
Spell Card Name	Mana Cost	Damage	Health	Ability	ART
Water Healing	2	0	0	"Heal 1 Ally to the right for 1HP"	YES
Water Bubble	4	0	0	"Enemy Unit in front Cannot Attack this Turn"	YES
Tidal Wave	8	0	0	"Deal 2Damage to all Enemy Units. Heal all your Units by 2HP"	YES
Take Aim	2	2	0	"Deals 2Damage to the Opponent"	YES
Target	3	0	0	"Strengthen an Ally on each side by 2HP"	YES

## Changelog:

- Adjusted all Abilities to be more clear



The final core-loop, reflecting the final changes made from the [previous version](#)





# Pegi Rating

Now that the game is complete, using the Pegi ruling system I believe it is safe to assume the game would fall under the Pegi Rating of 7+ with the sub-rating of Fear due to the risk of frightening images/sounds to the younger audience.

Some art pieces are little more grotesque than others and may provoke fear in younger audiences.

7+ Would be the minimum someone could play the game as the systems in place are a complex for younger audiences.



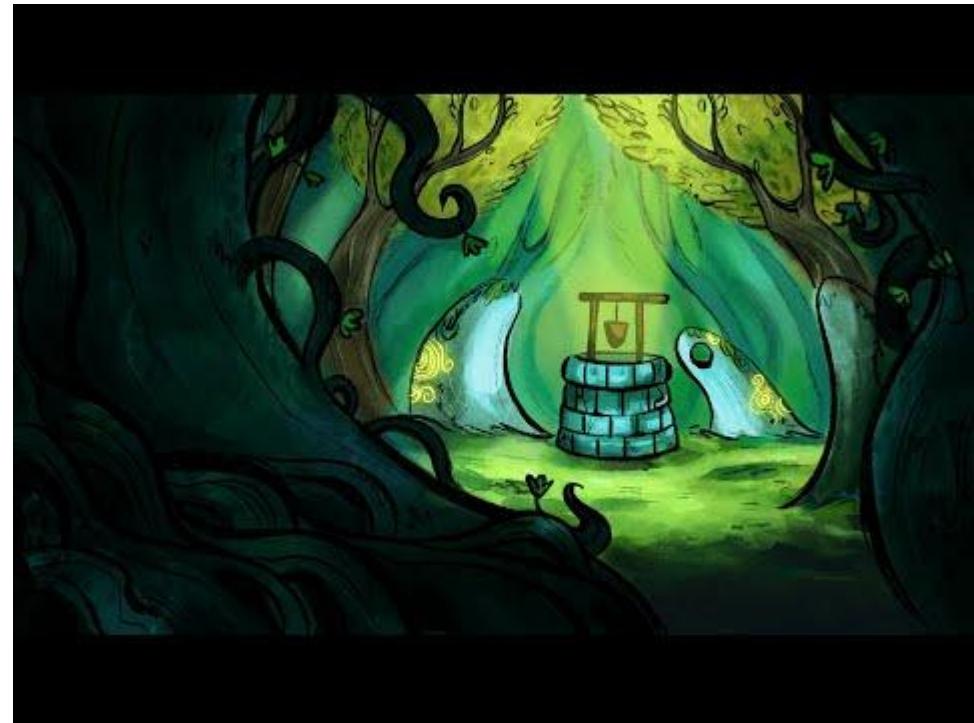
---

## Game Trailer

I was able to refer to the trailer timeline I created [here](#) to develop a 1 minute long trailer for our [Itch.io](#) Page.

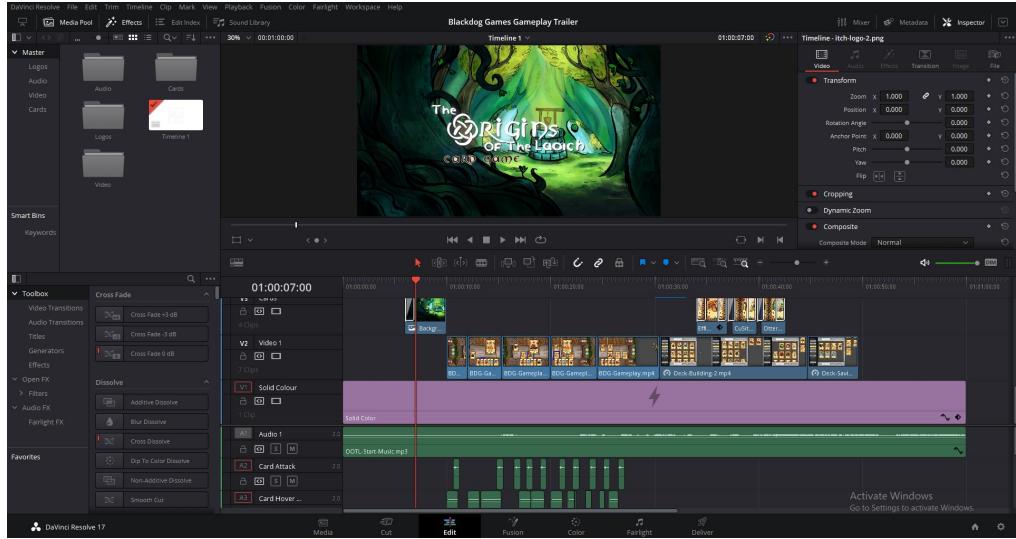
I used DaVinci Resolve to edit the clips together, using their in-built tools I was able to produce the trailer.

An image of the DaVinci project can be seen on the next slide.



# DaVinci Project

I added several layers of Video/Images and Audio, I spent several hours on the project as I had to sync the Audio/Video as best as I could to make it seamless and effective.



# Project WIKI

## Blackdog Games WIKI

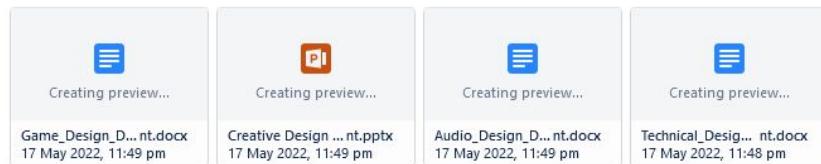


Created by Joseph Mackle

Last updated: May 17, 2022 • 1 min read

As part of the submission, a project wiki is required, this wiki houses the GDD/CDD/ADD/TDD documents.

I also created a backup wiki on google drive, which also contains the assets for the project.



Alternatively you can access the Google Drive WIKI [here](#). This WIKI also includes asset files.

Please note that the preview images for the documents hosted on Google Drive display incorrectly, downloading the documents solves this.

# GDD Contribution

A full list of all changes made the GDD. As it can be seen here, Adam stopped updating the document with new additions at the start of March, leaving me to do the rest of it, after I asked him multiple times to add to it.

Version Number	Description	Date
Version 1.0.0	<ul style="list-style-type: none"><li>• GDD Template created (J)</li></ul>	Date: 09/02/22
Version 1.0.1	<ul style="list-style-type: none"><li>• Added GDD Version Control (J)</li><li>• Filled out Game Overview (J)</li><li>• Filled out Gameplay Summary (J)</li></ul>	Date: 15/02/22
Version 1.0.2	<ul style="list-style-type: none"><li>• Filled out Gameplay Detailed (A)</li><li>• Filled out Influences (A)</li><li>• Updated Project Scope (J)</li></ul>	Date: 21/02/22
Version 1.0.3	<ul style="list-style-type: none"><li>• Filled out Core Gameplay Mechanics (A)</li></ul>	Date: 24/02/22
Version 1.0.4	<ul style="list-style-type: none"><li>• Filled out Project Details (A)</li><li>• Updated Table of Contents (J)</li><li>• Added Page Numbers (J)</li></ul>	Date: 02/03/22
Version 1.0.5	<ul style="list-style-type: none"><li>• SFX &amp; Music Updates (J)</li></ul>	Date: 09/03/22
Version 1.0.6	<ul style="list-style-type: none"><li>• 2D Game Assets Updated (J)</li></ul>	Date: 10/03/22
Version 1.0.7	<ul style="list-style-type: none"><li>• Updated Asset List, Animation &amp; Audio (J)</li></ul>	Date: 21/03/22
Version 1.0.8	<ul style="list-style-type: none"><li>• Updated Gameplay Flowchart (J)</li></ul>	Date: 23/03/22
Version 1.0.9	<ul style="list-style-type: none"><li>• Updated Game 2D Assets (J)</li></ul>	Date: 26/03/22
Version 1.1.0	<ul style="list-style-type: none"><li>• Updated whole document to reflect AI (J)</li></ul>	Date: 26/04/22
Version 1.1.1	<ul style="list-style-type: none"><li>• Updated Game Overview (J)</li><li>• Updated Game Assets (J)</li></ul>	Date: 27/04/22
Version 1.1.2	<ul style="list-style-type: none"><li>• Updated Game Assets (J)</li></ul>	Date: 07/05/22
Version 1.1.3	<ul style="list-style-type: none"><li>• Updated Game Assets (J)</li><li>• Updated Influences, added links (J)</li><li>• Updated Project Scope, added image (J)</li><li>• Updated Monetization Model (J)</li><li>• Updated Core Gameplay Mechanics (J)</li><li>• Updated Key Features (J)</li><li>• Updated Gameplay (J)</li></ul>	Date: 12/05/22
Version 1.2.0	<ul style="list-style-type: none"><li>• Updated Key Features with Flow Charts and Final images. (J)</li></ul>	Date: 15/05/22
Version 1.2.1	<ul style="list-style-type: none"><li>• Updated Target Platform (J)</li><li>• Updated Key Features (J)</li><li>• Updated Gameplay (J)</li><li>• Updated Game Overview (J)</li><li>• Added Core Gameplay Mechanics Dropped (J)</li></ul>	Date 16/05/22
Version 1.2.2	<ul style="list-style-type: none"><li>• Updated System Requirements (J)</li><li>• Updated User Interface &amp; User Experience (J)</li><li>• Updated Game Assets (J)</li><li>• Updated Core Gameplay Mechanics (Dropped) (J)</li></ul>	Date 17/05/22

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## Sprint Review

A rather hectic sprint as it technically only lasted 1 week, however, the team did great we got all the Art in place, all the abilities are in with the SFX. Card Deck works as we wanted it although we found some bugs that we had no time to fix.

The [itch.io](#) page was finalised and all team members that wanted their socials linked, I hyperlinked them so they could get their recognition.

---

# Development Diary



# Development Diary

## WEEK #01

- Reviewed Client Brief
- Group Brainstorming
- Created the Documentation documents
- Jira Set-up

## WEEK #02

- Worked on the Jira Workflow
- Developed my Initial Concept
- Created the Client Pitch

## WEEK #03

- Sprint 2 Jira
- Paper Prototyping
- Developed Rule System
- Developed System Flow Charts
- Created Core Game Loop Flowchart

## WEEK #04

- Created TDD Flow Charts for the team, software and scope.
- Worked on Card Iteration



# Development Diary

## WEEK #05

- Sprint 3 Jira
- Itch Page Creation
- Began to work on Audio Documentation/List
- Developed Card Zoom/Highlight system

## WEEK #06

- 1st Year QA Testing Documentation
- Continued to work on Audio Documentation/List
- First Playable Deliverable

## WEEK #07

- Sprint 4 Jira
- Scope Iteration, Reward System Cancelled
- Developed a Main Menu Skeleton

## WEEK #08

- Core Gameplay Changes
- Developed Pause Menu Concept
- Developed Turn Timer Concept
- Worked on Main Menu Updates



# Development Diary

## WEEK #09

- Sprint 5 Jira
- Created a UI Asset List for the Artists
- Began to implement Audio.
- Start Screen Implementation

## EASTER #01

- Developed Deck Building UI Concepts
- Attack Zone Updates

## EASTER #02

- Sprint 6 Jira
- Developed the Loading Screen
- Developed the Settings Menu

## WEEK #10

- UI Implementation Updates
- Card Zoom Proposed Changes
- Card Highlight Changes
- Made Audio Adjustments to several assets
- Client Update
- Developed the Win/Defeat Conditions



# Development Diary

## WEEK #11

- Sprint 7 Jira
- Card Exchange Feature Cancelled
- GDD Documentation Updates
- Audio Adjustments
- Card Layout Adjustments

## WEEK #12

- Start Screen UI Updates
- Attack System Updates
- Work on Card Iteration
- Deck Building Fixes
- Worked on the games Press Kit

## WEEK #13

- Sprint 8 Jira
- UI Polish
- Re-recorded several videos for the “How to Play”

## WEEK #14

- Worked on final Card Iteration
- Created the Gameplay Video/Trailer
- Researched PEGI Rating to apply to our game
- Finalized the Project WIKI
- Project Submission

---

# Reflection

---

## Did we meet the brief?

I believe that we did meet the specified brief, we produced a Digital Card Game that incorporates both Scottish mythology and ties very well into the show. I believe through implementing several characters that are mentioned into the Game will help to expand the IP our client has; it will be useful to for them for their future projects.

## Feedback?

Feedback was something we struggled with not the in the sense we didn't listen more so that we never received any. Our client is not in the game development industry and knew very little about it. Any feedback that they gave was mostly on Art related pieces. Most of the feedback we received came from our Mentor, which we implemented the best we could. Our mentor helped to inform our decisions on player experience. We had multiple changes throughout the project in relation to this, from changing the core-loop to make it more understandable to adjusting the core-game UI layout to make better use of space. Adjusting the "How to Play" several times to include more information.

---

## Strong Points?

The final product had several strong areas, for one, it functioned as we intended it to. The player can create decks and use them in the game. The art style is very fitting for the project and has a unique look to it.

Characters/Monsters and Abilities in the game are a strong point of interest as this is what sets this project apart from the others. We made it clear from the beginning we would incorporate multiple different monsters. For my own cards I made sure to implement what I could from the show to bring the characters alive.

Visual/Auditory feedback was done well. I made sure that any UI elements had a visual/audio to go with them. Any cards that used an ability had Audio to follow it. In the polish weeks I made sure the attack/block animations were implanted as these helped to show the player that their action went through.



## What could have been better?

I believe we fell short on a few Areas, our “How to Play” is rather basic and is not the best way to introduce the player to the game, a well-rounded tutorial would have been preferred but due to only have 2 programmers both of which were busy with other task we didn’t really have a choice on that.

I tried my best to keep things flowing smoothly, however due to covid it made things difficult during the project some members caught it which delayed us a times as well as other personal issues causing people to not be present.

I believe our team was at a huge disadvantage with our size. We could have used an extra programmer for this project as the systems for a card game are not simple and only having 2 people who can work on this made their tasks take several weeks to full complete.

I felt like design communication on the team could have been better many stages throughout development it felt like I was the only designer on the team as Adam was supposed to be the “lead designer” yet he did very little to help in the development phase, documentation from him was lacklustre at best. He seemed to do no research when developing his UX charts as they were usually poor and due his distance usually outdated and no longer matched the project. I had to take on his work and create system flow charts for reference, I did the majority of the [GDD](#) as he never updated it when it was needed.

Testing for the project could have been better, I believe myself and the programmers were the only ones who really tested the game and reported bugs. Our “Lead Designer” never seemed to play the game not that he knew paid attention to what was new in the project.

Using resources that are already available would have been a huge boost for us, we never looked into any at the beginning and this is definitely one big takeaway. We could have used open source projects as a basis and developed on top of it. This would have reduced the workload and improved the final product.

---

## Existing Products?

Our client specified 2 main games of reference, those being Hearthstone and Incription, both of which I used when conceiving my idea. I believe I did well to pull in the strengths of both games into my concept and as the project went on more got added to improve the final product.

I used extra reference games as I had played them before, so it was only natural to think of them when considering design choices, I used “Legends of Runeterra” and “Magic the Gathering” for extra inspiration.

## Further Development?

I believe we have left the project to be taken on easily. The core loop is in place, the art style is set. Multiplayer would be a big push to get added in as well as spreading it across different platforms (Android, IOS). A proper tutorial to introduce the player to the game would be a necessity for the future. As we experienced not everyone fully knew what they had to do when they first played it.

I would personally like to see the project taken on further as it was enjoyable to develop. I see the potential it has with its relation to the show and other IP works the client may have. However, a card game is no easy feat, and it would take some time to develop. The client could also completely re-do the project and take it in a different direction.

---

# References



# References

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- Frank, A., 2016. Hearthstone now has 50 million players. [online] Polygon. Available at: <<https://www.polygon.com/2016/4/26/11511890/hearthstone-50-million-players-2016>> [Accessed 10 February 2022].
- Chalk, A., 2017. Hearthstone hits 70 million players, gives everyone three free packs to celebrate. [online] pcgamer. Available at: <<https://www.pcgamer.com/hearthstone-hits-70-million-players-gives-everyone-three-free-packs-to-celebrate/>> [Accessed 10 February 2022].
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- Isaac Baker & Philip Curran - Music



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Audio Manager:

- Youtu.be. 2017. [online] Available at: <<https://youtu.be/6OT43pvUyfY>> [Accessed 28 March 2022].

Loading Tip:

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