

ReadyUP - LFG Gaming Portal

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Open Window, School of Fundamentals

DV200

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Client Conceptualisation and Problem Statement

Overview of the project and business domain

ReadyUP is a web-based LFG (Looking for group) portal to help solve the most common problem plaguing team based games, your random teammates. ReadyUP can help users find teammates to play games with based on their preferences, whether that be playing a competitive match with similar skilled players or finding a group to have a fun session with. ReadyUP will have easy-to-use features to create and join LFG posts to play with others. The business domain will lie in the online multiplayer gaming industry as the application aims to group up players participating in online gaming.

Core Problem

Playing with random players can be frustrating when trying to climb ranks competitively or unenjoyable when just playing for fun. This can be improved by finding a group of similar players that want the same experience that you do and are at a similar level. ReadyUP aims to help match players with similar interests and objectives in mind to improve their gaming experience. Current LFG solutions are fragmented over community discord servers or console-only services which makes it inconvenient for many users to use such features

Why The Solution Is Necessary

As current LFG solutions are inconvenient or potentially messy to use, a single centralised solution can stand out against similar services. ReadyUP will be a centralised LFG portal for a variety of games which will allow players to easily search for a group that best matches what they are looking for, and if they can't find a post, they can easily create one.

Foreseeable limitations or constraints

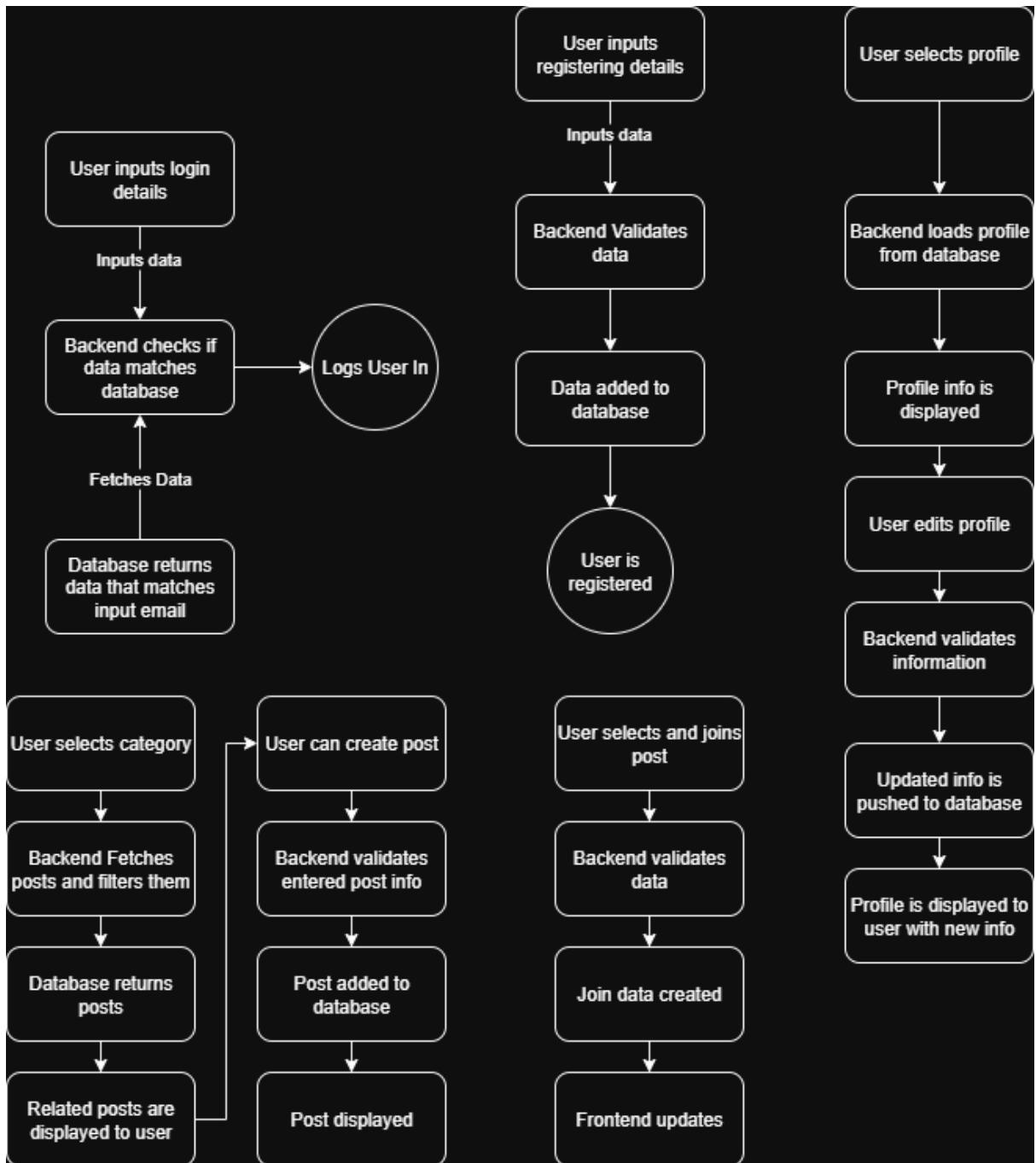
Due to the nature of the solution, a main drawback will be the number of users utilising the service. If too few users are utilising the platform there will be near no posts. As such on launch the service will focus only on popular multiplayer games that can draw in the most players without spreading our user base too thin. However, adding categories will be simple for administrators to keep up with a growing user base. Furthermore, the web application can be upgraded to include improved communication between users such as text and voice chat. Unfortunately for the first version we will include a profile section for different users preferred voice chat platform such as discord.

Name and Logo

The name of the web application will be ReadyUP, from the popular term used to indicate matchmaking in multiplayer games. Often, games require all players in the premade party to indicate they are ready to start finding a match which then popularised the term “ready up.” The logo resembles a button with the ReadyUP name



System Architecture



Technologies and Frameworks

Frontend

React will be used to build the frontend due to its component based architecture to create a modular codebase that can be efficiently expanded upon

Tailwind is a CSS framework that will be used to make the website look modern and feel good to use. Tailwind additionally supports mobile responsiveness which will help ensure the web application is viewable on any device.

React-Bootstrap is a frontend framework that will be used to efficiently create components and help ensure responsiveness with layouts and components.

Backend

Node.js will be used due to its scalability and efficient performance

Express.js will be used as the backend framework as its middleware capabilities allow for efficient use of and building of the api to access the database. It allows for a structured codebase and is great at handling authentication, routing, and errors.

MySQL will be used as the database management system due to its relational structure. ReadyUP will greatly benefit from having structured data to ensure data integrity and scalability.

Feature Requirements and Scope

Included Features (MVP):

- Creating and viewing posts
- Editing and deleting own posts
- Admin Dashboard to delete inappropriate posts or old categories
- Joining posts
- Posts expiring after a time period
- User Authentication
- Flagging posts as inappropriate
- Basic User Profile (Username, Preferred Communication Platform)

Nice-to-have features:

- Filtering by different categories and post specifications
- Expansive User Profile (Description, platform, pfp)

Excluded Features:

- Messaging/Chat system
- Voice call/chat
- Dedicated Application
- Friends Lists

User Roles

Role	Permissions
Admin	Everything a user can do Can create game categories for users to post in Can delete inappropriate posts
Standard User	Can create, view and join LFG posts. Can edit and delete own posts Can customise profile
Guest User (Read only user)	Can view all LFG posts but will not be able to join without creating an account

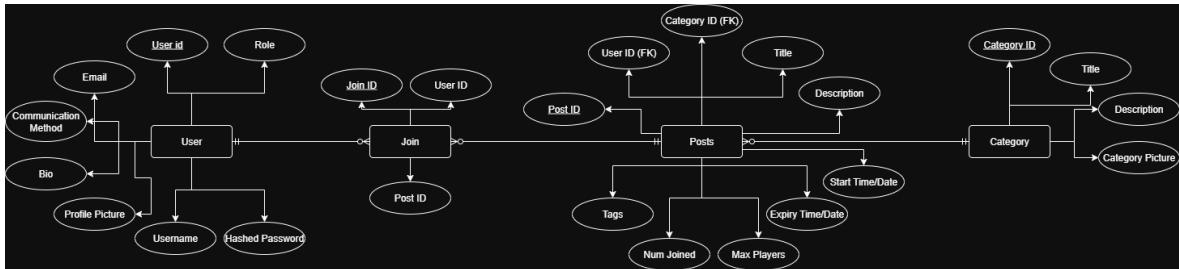
SMART Objectives

- Complete all core MVP features listed above so that they are completely functional.
Success will be measured by the functions being completed with no critical bugs.
This ensures the application meets the requirements of an LFG portal. Target completion deadline: Week 11
- Develop the frontend using React, React Bootstrap, CSS, and Tailwind for the application to ensure it is capable of displaying and allowing the user to interact with all MVP features. Target completion deadline: week 9
- Ensure the frontend is entirely responsive for both desktop and mobile. Success will be measured by testing the frontend on different screen sizes. Clean and responsive UI is vital for user experience. Target completion deadline: week 13
- Role based user authentication to differentiate permissions and access based on account is essential for keeping the application secure. This is to be completed using express and node in the backend. Target completion deadline: week 10
- Admin features and dashboard to be able to create categories and delete flagged user posts. This will contain all of the respective CRUD functionalities related to admin specific roles and done through express routing using the role permissions. This will ensure game categories can be easily added and offensive posts can be easily taken care of. Target completion deadline: week 12
- Internal testing will be done to ensure all features are functioning as intended and any bugs encountered will be fixed prior to deployment. This will be done by testing the extremes of the application done by a small group of select individuals. This stage is vital to clear up any critical and minor issues. Target completion deadline: week 14
- Deployment of the application on chosen web hosting platform, accompanied by SEO and documentation. This will be measured by ability to access the application once it is deployed, how easy it is to find on the browser, and by the availability of

documentation via a readme markdown file. This ensures project completeness and helps ensure the web app is usable by users. Target completion deadline: week 15

Data Planning

Entity Relationship Diagram (ERD)



Explanation of key tables

User

- **Purpose**

Stores user account information and profile details

- **Key Attributes**

- User id (PK)
- Email
- Username
- Hashed Password
- Role
- Bio
- Profile picture
- Communication method

- **Relationships**

- One to Many - One post can only be created by a singular user
- One to Many (Split up using join) - One user can join many posts

Posts

- **Purpose**

Represents the data stored in each LFG post made by a user

- **Key Attributes**

- Post id (PK)
- User id (FK)
- Category id (FK)
- Title
- Description
- Start Date/Time
- Expiry Date/Time
- Max Players
- Num Joined
- Tags

- **Relationship**

- Many to One - Many posts can be made by one user.
- Many to One - Many posts can be in a single category
- One to Many - One post can be joined by many users

Categories

- **Purpose**

Stores game categories for posts

- **Key Attributes**

- Category ID (PK)
- Title
- Description
- Category Picture

- **Relationship**

- One to Many - One category can have many posts

Join

- **Purpose**

Tracks which users have joined which posts

- **Key Attributes**

- Join ID (PK)
- User id (FK)
- Post id (FK)

- **Relationship**

- Many to One - Each join references one user to one post

Wireframes

Home

Find Your Next Squad Now
ReadyUP is your looking for group hub

Browse Posts

Popular Games

- Fortnite**
73 Posts looking for a group
[View Now >](#)
- League Of Legends**
48 Posts looking for a group
[View Now >](#)
- Marvel Rivals**
46 Posts looking for a group
[View Now >](#)
- Overwatch 2**
39 Posts looking for a group
[View Now >](#)

How It Works

- Select The Game You'd Like To Play**
Browse Posts > Click a Banner
- Join A Group Or Make Your Own**
Select A Group Or Call For Others
- Connect On Your Fav Platform**
Specify This In Your Profile
- Let's Game**
Good Luck, Have Fun

Ready UP

Home
Browse Posts
My Posts
My Profile

𝕏 TikTok Instagram YouTube Facebook

Game Category

Ready UP
Home
Browse Posts
My Posts
Admin
Help
Login
X

Select A Game

Sort By: Most Popular
SEARCH



Fortnite

73 Posts looking for a group

[View Now >](#)



League Of Legends

48 Posts looking for a group

[View Now >](#)



Marvel Rivals

46 Posts looking for a group

[View Now >](#)



Overwatch 2

39 Posts looking for a group

[View Now >](#)



Fortnite

73 Posts looking for a group

[View Now >](#)



League Of Legends

48 Posts looking for a group

[View Now >](#)



Marvel Rivals

46 Posts looking for a group

[View Now >](#)



Overwatch 2

39 Posts looking for a group

[View Now >](#)



Fortnite

73 Posts looking for a group

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League Of Legends

48 Posts looking for a group

[View Now >](#)



Marvel Rivals

46 Posts looking for a group

[View Now >](#)



Overwatch 2

39 Posts looking for a group

[View Now >](#)

<
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>

Ready UP
[Home](#)
[Browse Posts](#)
[My Posts](#)
[My Profile](#)









Posts



- [Home](#)
- [Browse Posts](#)
- [My Posts](#)
- [Admin](#)
- [Help](#)
- [Login](#)
- [Logout](#)

Fortnite

[FILTER BY TAGS](#) [Sort By: Start Time](#) [SEARCH](#)



Starts:
NOW

HAVE	NEED
0	1

Casual Duos - Just Vibin'

Looking to run some casual Duos, no sweat. Just here for good vibes and a few Victory Royales. Mic preferred but not required. NA-E, chill players only

[Mic Required](#) [18+](#) [Squads](#)
[ZeroBuild](#) [PlayingAllNi...](#) +3 More



Starts:
NOW

HAVE	NEED
0	1

Arena Grind Partner - Div 6+

Grinding Arena and need a reliable teammate. I'm in Division 6, looking to push to Champs. Solid comms, rotate smart, no ego. Controller player (NA-W). Add and dro...

[Mic Required](#) [18+](#) [Squads](#)
[ZeroBuild](#) [PlayingAllNi...](#)



Starts:
NOW

HAVE	NEED
4	11

Zone Wars / Box Fights Lobby

Hosting Zone Wars & Box Fights - join up if you're down to warm up or just mess around. No toxic players, just clean fights. Add me and I'll send code!

[Mic Required](#) [18+](#) [Squads](#)
[ZeroBuild](#) [PlayingAllNi...](#)



Starts:
Today 22:00

HAVE	NEED
2	1

Late Night Squads - Mic Only

Looking to squad up with people who actually communicate and rotate. Playing for fun but I'm decent. NA-Central, on until 2am. Drop your tag or invite!

[Mic Required](#) [18+](#) [Squads](#)
[ZeroBuild](#) [PlayingAllNi...](#) +2 More



Starts:
Thurs 18:00

HAVE	NEED
1	2

New to Fortnite - Need Squad

Kinda new to Fortnite, still learning builds and weapons. Looking for patient teammates to play casual matches. EU server preferred. Don't mind losin...

[Mic Required](#) [18+](#) [Squads](#)
[ZeroBuild](#) [PlayingAllNi...](#)



Starts:
Fri 20:00

HAVE	NEED
1	5

Zone Wars / Box Fights Lobby

Hosting Zone Wars & Box Fights - join up if you're down to warm up or just mess around. No toxic players, just clean fights. Add me and I'll send code!

[Mic Required](#) [18+](#) [Squads](#)
[ZeroBuild](#) [PlayingAllNi...](#) +1 More

[<>](#) Page 1 of 2 [<<](#)



- [Home](#)
- [Browse Posts](#)
- [My Posts](#)
- [My Profile](#)

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[!\[\]\(7b452dba9bf2097c9eddd8aa11a3d79d_img.jpg\)](#)
[!\[\]\(6621e27760f6db7a0b47984c3cb32f73_img.jpg\)](#)

[!\[\]\(8c4a1ca8bebab5084e8ed50d8b7b1556_img.jpg\)](#)
[!\[\]\(01b6a6fde72f82e023e0fcecd7d25f29_img.jpg\)](#)
[!\[\]\(7dab52c31563bbb9742d6c8305b4a1f5_img.jpg\)](#)

Login

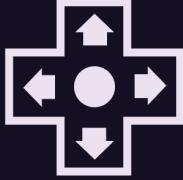


Home Browse Posts My Posts Admin Help [Login](#) 

LOGIN

Email:

Password:

Enter Your Cheat Code


[LETS GO](#)

Don't Have A ReadyUP Account?

[Register](#)



Home
Browse Posts
My Posts
My Profile

Register

Ready UP

Home Browse Posts My Posts Admin Help [Login](#) 

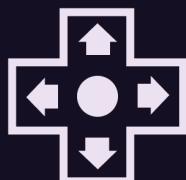
Register

Email:

Password

Confirm Password

Create Your Cheat Code



[Register](#)

Already Have A ReadyUP Account?

[Login](#)

Ready UP

Home
Browse Posts
My Posts
My Profile

Admin

The screenshot displays two main sections of the Ready UP website:

- Reported Posts:** This section shows three reported posts in cards:
 - Casual Duos - Just Vibin'**: Description: Looking to run some casual Duos, no sweat. Just here for good vibes and a few Victory Royales. Mic preferred but not required. NA-E, chill players only. Tags: Mic Required, 18+, Squads, ZeroBuild, PlayingAllNight, +9 More. Buttons: Keep Post, Remove Post.
 - WWII Roleplay - Need Hitler**: Description: As the title says, doing a roleplay in a concentration camp map and we need someone to play as Hitler. Tags: Mic Required, RP, Creative. Buttons: Keep Post, Remove Post.
 - Tottenham Will beat ManU**: Description: WE HATE MAN U WE HATE MAN U. Tags: NotEvenClose, 18+, L. Buttons: Keep Post, Remove Post.
- Remove A Category:** This section shows a category for "League OF Legends" with a thumbnail image of a League of Legends champion. Buttons: Remove Category.

At the bottom, the Ready UP logo is displayed along with links to Home, Browse Posts, My Posts, and My Profile, as well as social media icons for Twitter, TikTok, Instagram, YouTube, Facebook, and a grid icon.

I have gone with a dark mode style as it is more commonplace for users that often play or interact with video game media. The bright accent colours are used to give it a more modern or futuristic feel to incorporate it more with games, technology, and playfulness. These colours are bright so they are used minimally as they can overwhelm the user as they are very saturated. For typography I have chosen the font AudioWide as it feels futuristic and gamey. It appeals more towards a younger audience while remaining readable.

The layout is made on a 12 column grid to help ensure mobile responsiveness. Call to action text is worded to sound like the user is getting ready to play games.

For accessibility the bright and white colours are used on a darkish background to help aid legibility. Furthermore, icons are utilised to help give users an indicator as to what does what. The visual images will include alt text to help screen readers.

Moodboard

MoodBoard



Logo - Might Change



From League OF Legends

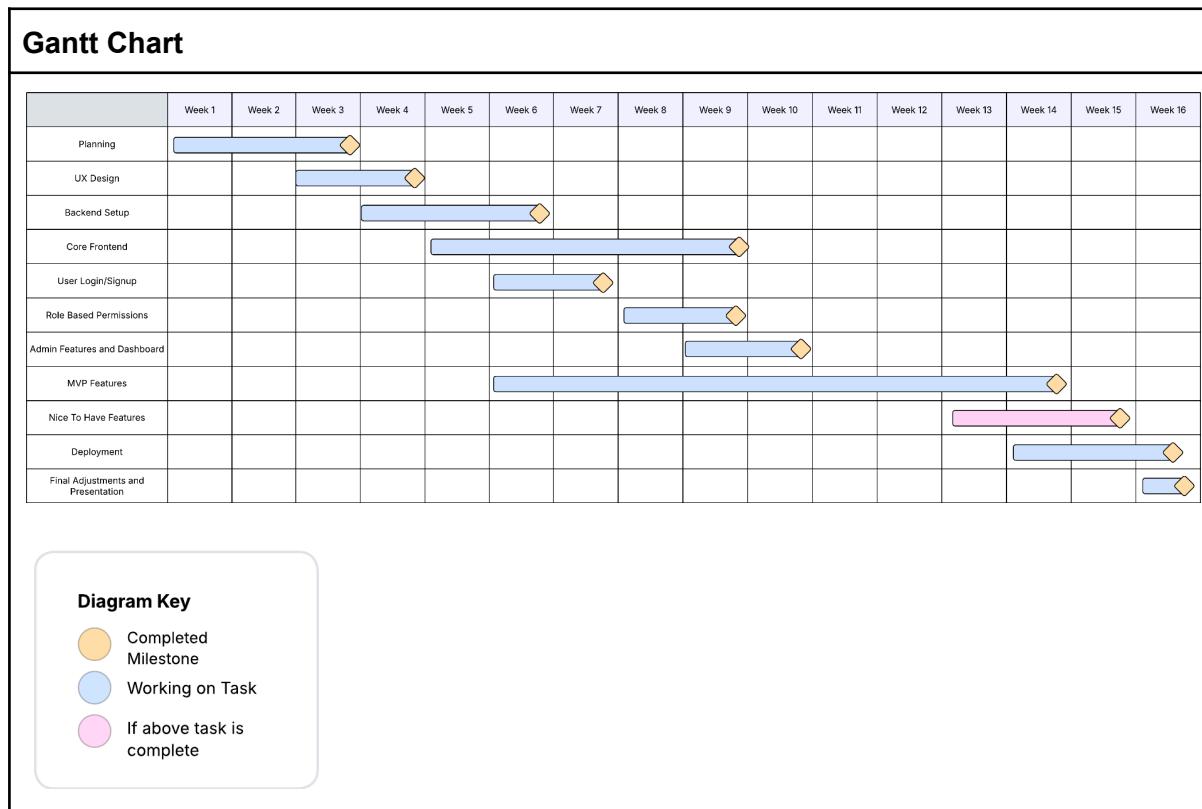


From adobe stock



Destiny Bungie					
	Info	Feed	Achievements	Friends & clubs	Captures
Looking for group					
<input type="text"/> Search tags					Create
	#KingsRaidHard #NeedNightstalker	Need 4 Have 1 Starts Now			
	#Nightfall running nightfall with alt, already completed, looking for 2	Need 2 Have 0 Starts Now			
	10-Ghost Hunter	Need 2 Have 4 Starts Now			
	#VaultOfGlassHard #FullRaider just want to kill Athreus, no CR will do	Need 0 Have 0 Starts Now			

Project Timeline



Project Milestones

Week #	Milestone/Deliverable
Week 1-4	Ideation and Planning. <ul style="list-style-type: none"> - Project proposal - Wireframes - Data Planning - Project Setup
Week 5	Progress Check 1 <ul style="list-style-type: none"> - Finalised wireframes and UI - Initial project setup (frontend + backend folders) - Basic static components - Database schema designed
Week 6-8	<ul style="list-style-type: none"> - MySQL database setup - REST API endpoints for users, posts - Authentication and role logic - Admin features drafted
Week 9	Progress Check 2

	<ul style="list-style-type: none"> - Fully functional backend with CRUD for posts - Connected frontend to backend APIs - User registration and login working
Week 10-12	<ul style="list-style-type: none"> - Final frontend pages completed - All routes wired up - Form validation and post creation working - Profile and post filtering
Week 13	<p>Progress Check 3</p> <ul style="list-style-type: none"> - Almost all core features complete - Starting on Nice to have features if core complete - Frontend Complete and fully responsive - Responsiveness and UI polish
Week 14-15	<ul style="list-style-type: none"> - Final feature implementation - Testing - Bug fixes and adjustments - Deployment setup
Week 16	<p>Final Deployed Web application.</p> <ul style="list-style-type: none"> - Fully deployed web app - All functionality implemented - GitHub repo cleaned and submitted - Live Demonstration prepared - ReadMe fully documented and complete

The project will be managed using a Kanban on Notion. It will have tasks split up into weeks with the categories: Not done, In Progress, Done, and backlog. Notion allows me to split these up neatly and attach deadlines to each target to make them time oriented.

Risks and Challenges

Risk/Challenge	Mitigation Strategy
Low User Adoption Rate The success of an LFG portal is heavily dependent on the number of users utilising the platform to create and join posts. Having too few users during startup can harm the long term success of the platform	To mitigate this risk we will only include a small number of the most popular games to avoid spreading our userbase out too much.
Data Consistency Users may be able to join expired posts or join posts at max capacity	Backend as well as frontend validation must be implemented to ensure users running a not refreshed frontend do not pass validation (frontend validation may succeed, whereas backend should not)
Time Management Development may fall behind due to complexity of the project, risking the deadline	Employ weekly sprints to meet certain criteria by the end of each week.
Long Term Engagement Users may grow tired of the application and stop using it	Employ regular QOL updates and update the game categories available. Adding extra features such as voice communication and a dedicated app may help user retention

Conclusion

ReadyUP will be a centralised LFG solution that fills a gap in the LFG space as other solutions are either through discord which does not natively support it or through platforms with limited accessibility. ReadyUP will be able to better connect users to groups of similar players across all platforms, in a more centralised way.