sota
staircase

RUNNING LATE
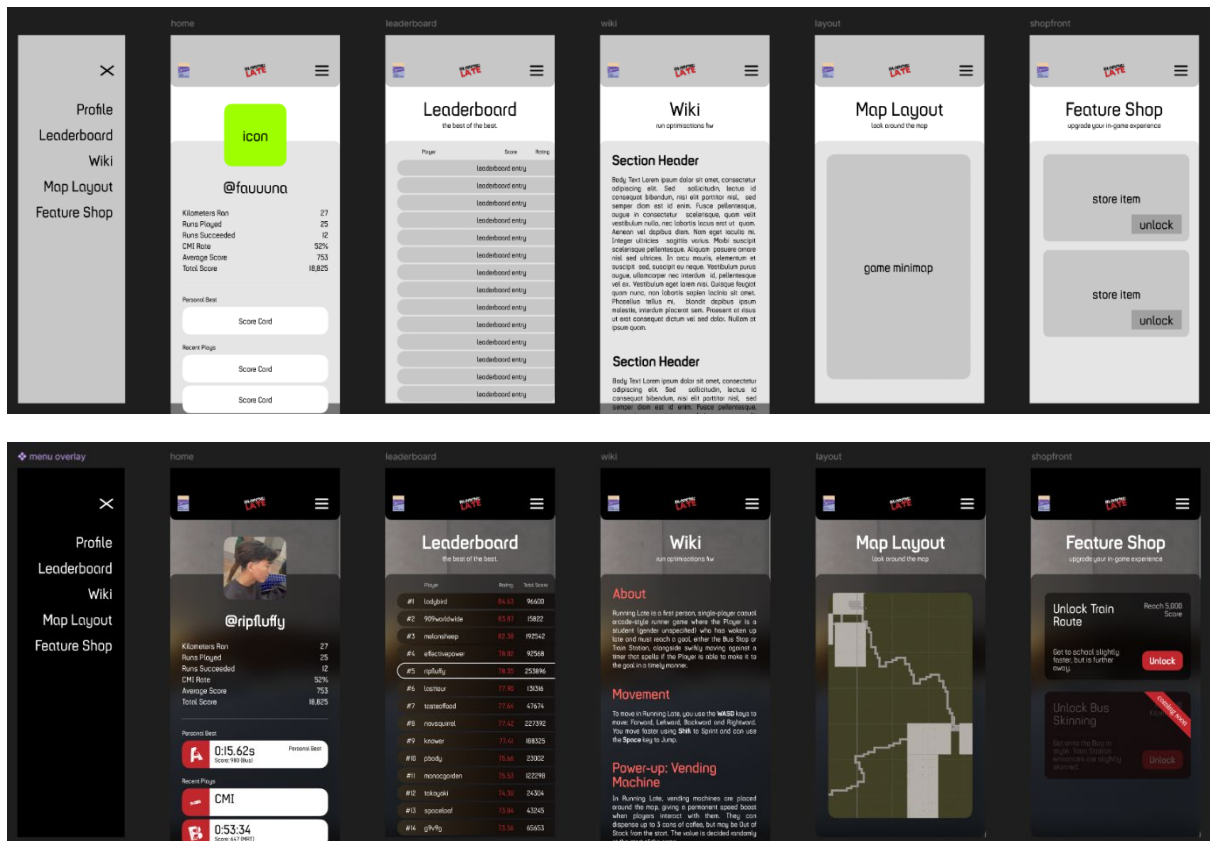
Design Proposal

Contents

About

Running Late is a first-person speed running-oriented game where the Player is a student (gender unspecified) who has woken up late and must reach a goal, either the Bus Stop or Train Station, alongside swiftly moving against a timer that spells if the Player is able to make it to the goal in a timely manner.

This Design Proposal concerns the companion mobile application (the "Application"), also called Running Late. Its purpose relative to the game is similar to companion guidebooks, although with "real-time" features like the Leaderboard and the Shopfront.

Prototype

Prototype Concept in Figma

Link: https://www.figma.com/design/iAYKmwdFjbSyyMUwnsnYZN/Running-Late-Companion-Application?node-id=127-1029&t=oei6c4OLiF9JL69i-1

The Figma Prototype is a mobile application, serving as a companion to the game. It allows the player to know, at a glance, statistics about themselves and their time in the game, learn more about the game and unlock new features.
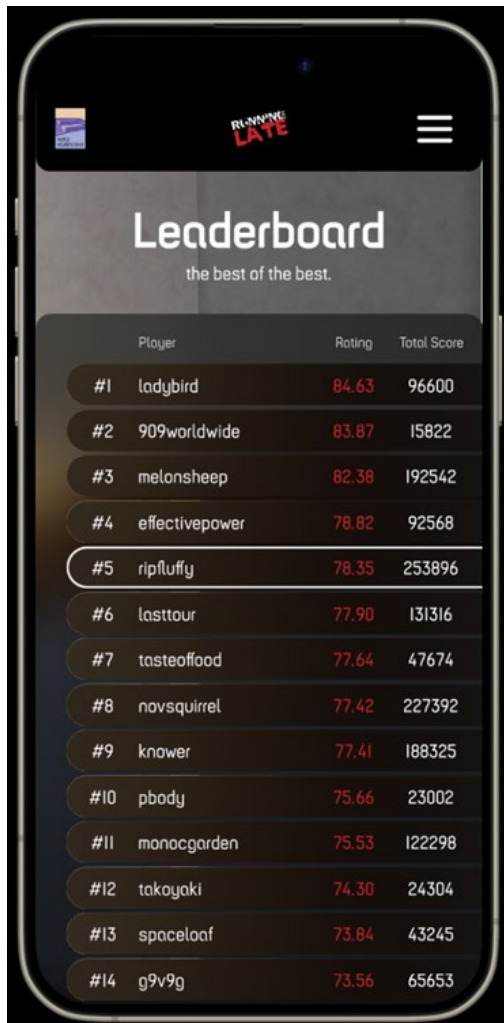
Prototype Features

I. Profile

The Profile section serves as a personalized dashboard for players, offering insights into their in-game performance and recent activity.

- **Statistics Overview**: Displays essential player stats, including total runs completed, average rating, and highest score achieved.
- **Personal Best**: Highlights the player's top score or fastest run, encouraging them to beat their own record.
- **Recent Activity**: A history of the last five runs or plays, detailing the mode (bus or train), score, and any notable achievements during each run. This allows players to track their progress and identify areas for improvement.

2. Leaderboard

The Leaderboard is a competitive feature that showcases the top 50 players, fostering a sense of community and competition.

- **Positioning**: Players are ranked from 1 to 50 based on their overall performance in the game.
- **Rating System**: Each player's rating is displayed, ranging from 99.99 to 00.00, providing a precise measure of their skill level.
- **Total Score**: The cumulative score across all runs, giving players a clear indicator of their overall performance.
- **Run Details**: Separate columns display the number of runs completed by bus and train, offering insights into players' preferred modes of play.

3. Wiki

The Wiki is an information-rich resource designed to assist new players in understanding the game's mechanics and strategies.

- **Comprehensive Guide**: A single-page document that provides detailed explanations of game rules, controls, tips, and strategies.
- **User-Friendly Layout**: Structured with headings and subheadings for easy navigation, ensuring that players can quickly find the information they need.

4. Map Layout
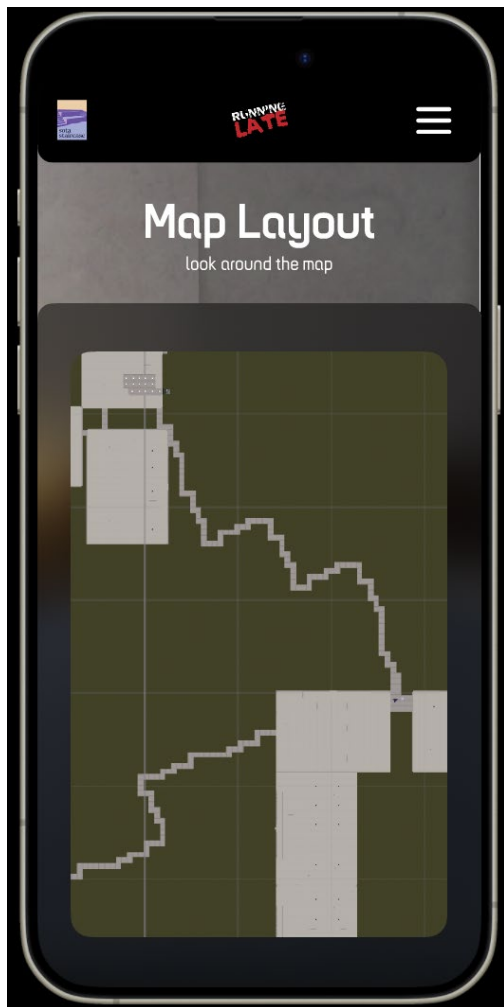
The Map Layout feature provides an interactive static minimap, enhancing player familiarity with the game world.

- **Interactive Map**: A static minimap that players can explore to understand the game's geography, including key landmarks, routes, and important points of interest.
- **Navigation Aids**: Visual markers and legend that explain the various symbols and paths on the map, helping players strategize their runs more effectively.

5. Feature Shop
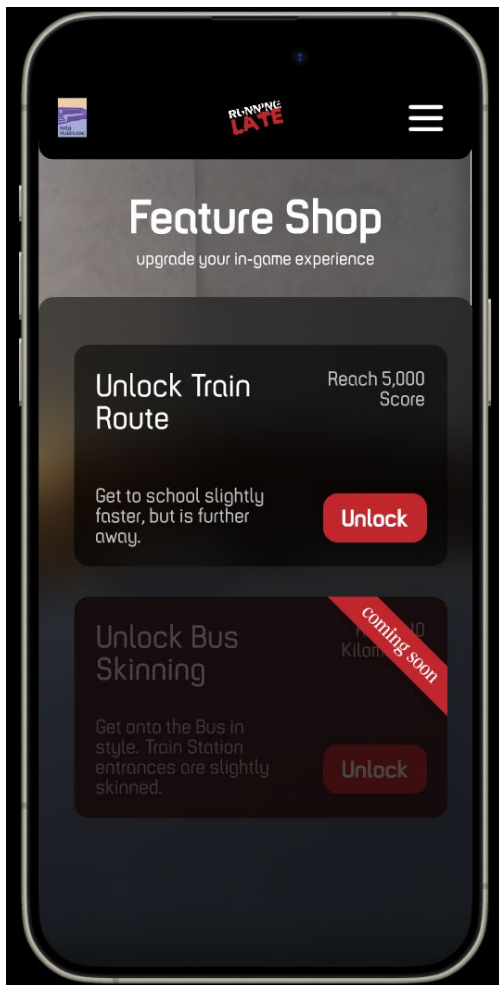
The Feature Shop is a feature that allows players to unlock in-game upgrades by redeeming special codes, enhancing their gameplay experience.

- **Redemption System**: Players can enter codes to unlock exclusive content or features, such as access to new routes (e.g., train routes) or cosmetic upgrades.
- **Achievement-Based Rewards**: Codes can be tied to in-game achievements, such as reaching a 5000 total score, incentivizing players to reach specific milestones.

Sitemap and Site Flows

Starts from the home page which is the wiki which then will lead to a hamburger menu as a form of navigating the website to the profile, map layout, leaderboard and the shopfront.

```
                    ┌─────────────┐              ┌─────────────┐
                    │  Wiki Page  │ ─────────▶   │ Feature Shop│
                    └─────────────┘              └─────────────┘
                      │    │    │                ┌─────────────┐
          ┌───────────┘    │    └──────┐         │             │
          ▼                ▼           ▼         │             │
    ┌───────────┐   ┌────────────┐  ┌────────────┐
    │  Profile  │   │ Leaderboard│  │ Map Layout │
    └───────────┘   └────────────┘  └────────────┘
          │
          ▼
    ┌───────────────┐
    │ Personal Best │
    │               │
    │ Recent Plays  │
    │               │
    │ Personal      │
    │ Statistics    │
    │               │
    └───────────────┘
```
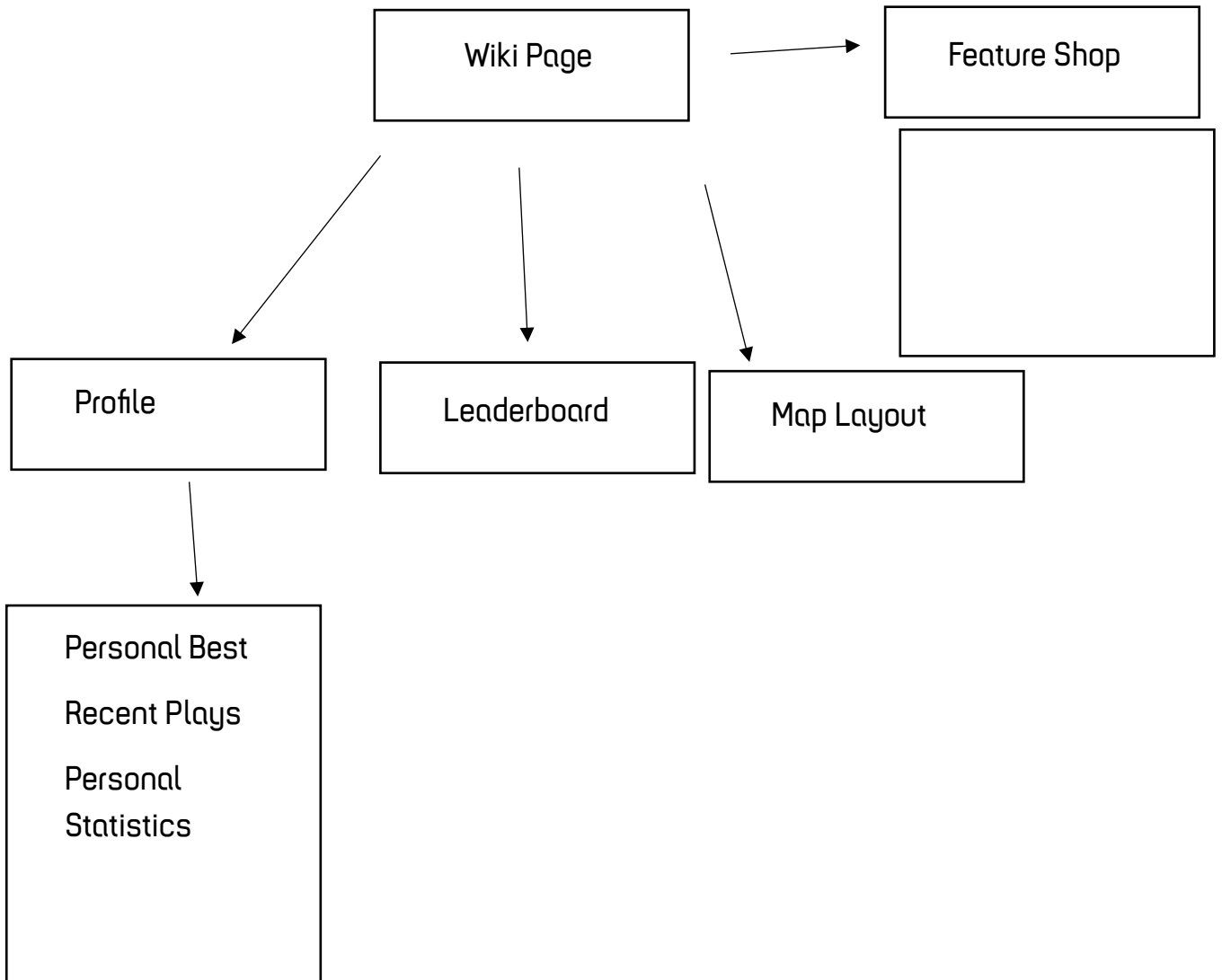
Hardware Components Research

The experience is packaged as a mobile application. Tentatively, a cross-platform framework like Flutter would be used to develop the application. As of Flutter 3.24.0, Flutter supports deploying apps the following combinations of hardware architectures and operating system versions:

Target Platform	Hardware architectures	Supported versions	Best effort versions	Unsupported versions
Android SDK	x64, Arm32, Arm64	21 to 34	N/A	20 and earlier
iOS	Arm64	17	12 to 16	11 and earlier

Oldest Supported Hardware:

- **iOS: Apple iPhone 6**

Hardware (iPhones) on the iOS platform, while performance does degrade, can still be usable in 2024. As such, we are targeting the iPhone 6 as our oldest supported hardware device.

- **Android: Google Nexus 5X**

Android hardware does degrade at a faster pace for modern applications, and as such we will target the Google Nexus 5X, a mid-range phone that released with Android 6.0 Marshmallow, which is 2 SDK versions newer than the lowest supported version by Flutter. (Android 6.0 is API level 23, Android 5.0 is API level 21)

Usability Testing

Plan

Mark, Ryan and Sai went to Republic Polytechnic looking for people to interview. We managed to grab a hold onto a student and scheduled a meeting with him online.

Mark then interviewed him about our game and our Figma prototype.

User Persona

User Journey

Figma:

User Journey Map

Customer actions	Exploring the website	Viewing Leaderboard	Viewing Leaderboard	Viewing Leaderboard	Looking at map feature on website
Touchpoints	Looking for more information about the game	Looking for top scores in leaderboards	Looking for total score for the game	Looking for yourself in the leaderboard	Looking for background in the map
Customer experience	😢	😆	😠	😮	😆
Pain Points	whenever scrolling the page has white parts that are ugly	the sorted column was the second in the numbers, making it feel randomised sorted by total score	"score" header was too vague when the data was for "total score"	hard to denote if you were in the leaderboard	seeing the background if you manipulated the map to extremes is visually dissonant
Solutions	fix the scrolling behaviour	rearrange data to show rating column first, make that the only red coloured column	rename label to total score	add white border as per usability testing	add a white background to the map container

Game:

User Journey Map

Customer actions	Exploring the Game	Playing the Game	Playing the Game	Playing the Game	Playing the game
Touchpoints	Looking for Vending Machine	Going down the lift	Trying to catch the bus	Trying to reach train station	Crossing the road
Customer experience	😢	😆	😠	😮	😆
Pain Points	Vending Machine too obscure	Lift is too slow and sound effects don't match the current state of the lift	bus leaves too frequently	path to train station is too convoluted and confusing	Cars were too fast and too many of them at once for the player to cross the road
Solutions	Add signs to point towards vending machine	Get better sound effects and increase the speed of the lift	bus will wait at bus stop for longer periods of time	Add a simple path that will help players reach the train station easier	Have more spaced out timings between the spawning of cars and reduce the speed by a bit

User Flow

Figma:

Profile

Wiki

Leaderboard

Map Layout

Feature Shop

Game:

```
  ( Start )          ( Exit HDB )          ( Go down )
  ( Menu  )  ----->  (  Flat    )  ----->  (  HDB    )
```

Start Menu → Exit HDB Flat → Go down HDB

Go down HDB → Train Station

Go down HDB → Vending Machine

Go down HDB → Bus Stop

Train Station → Game End

Vending Machine → Game End

Bus Stop → Game End

- Start Menu
- Exit HDB Flat
- Go down HDB
- Train Station
- Vending Machine
- Bus Stop
- Game End
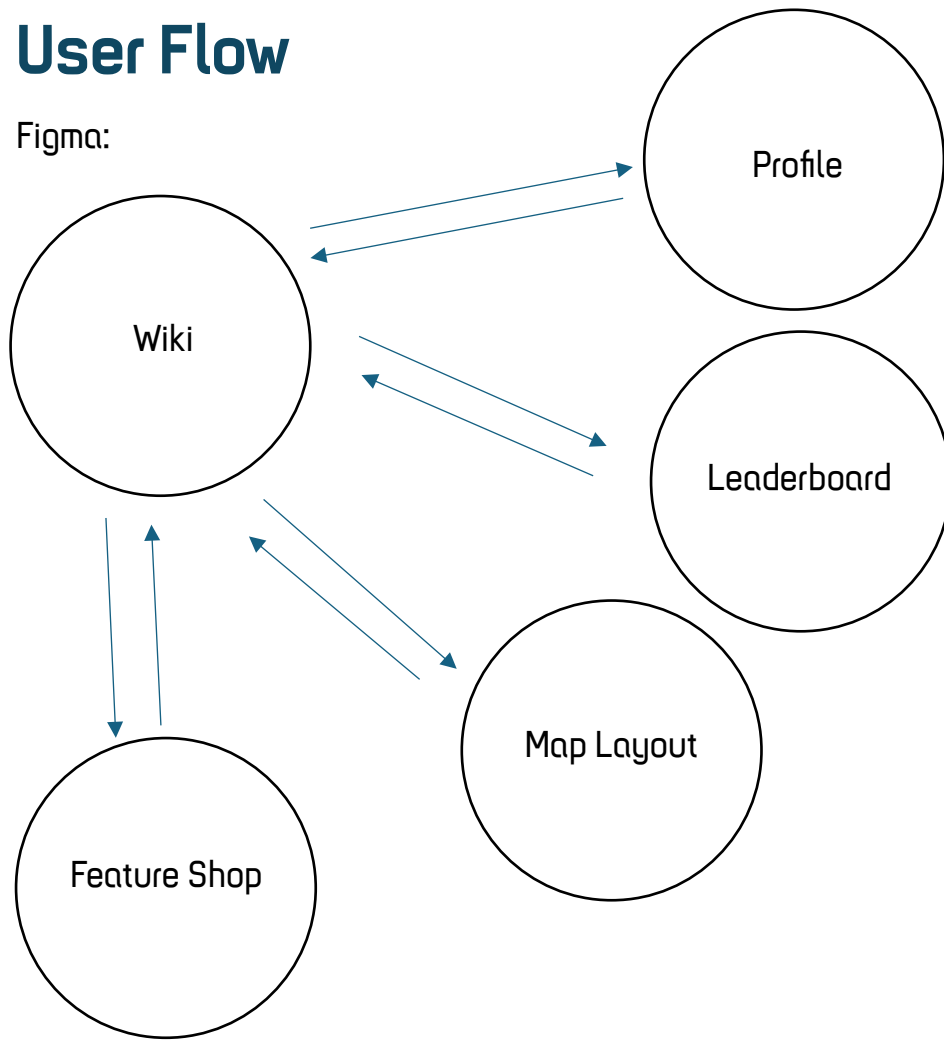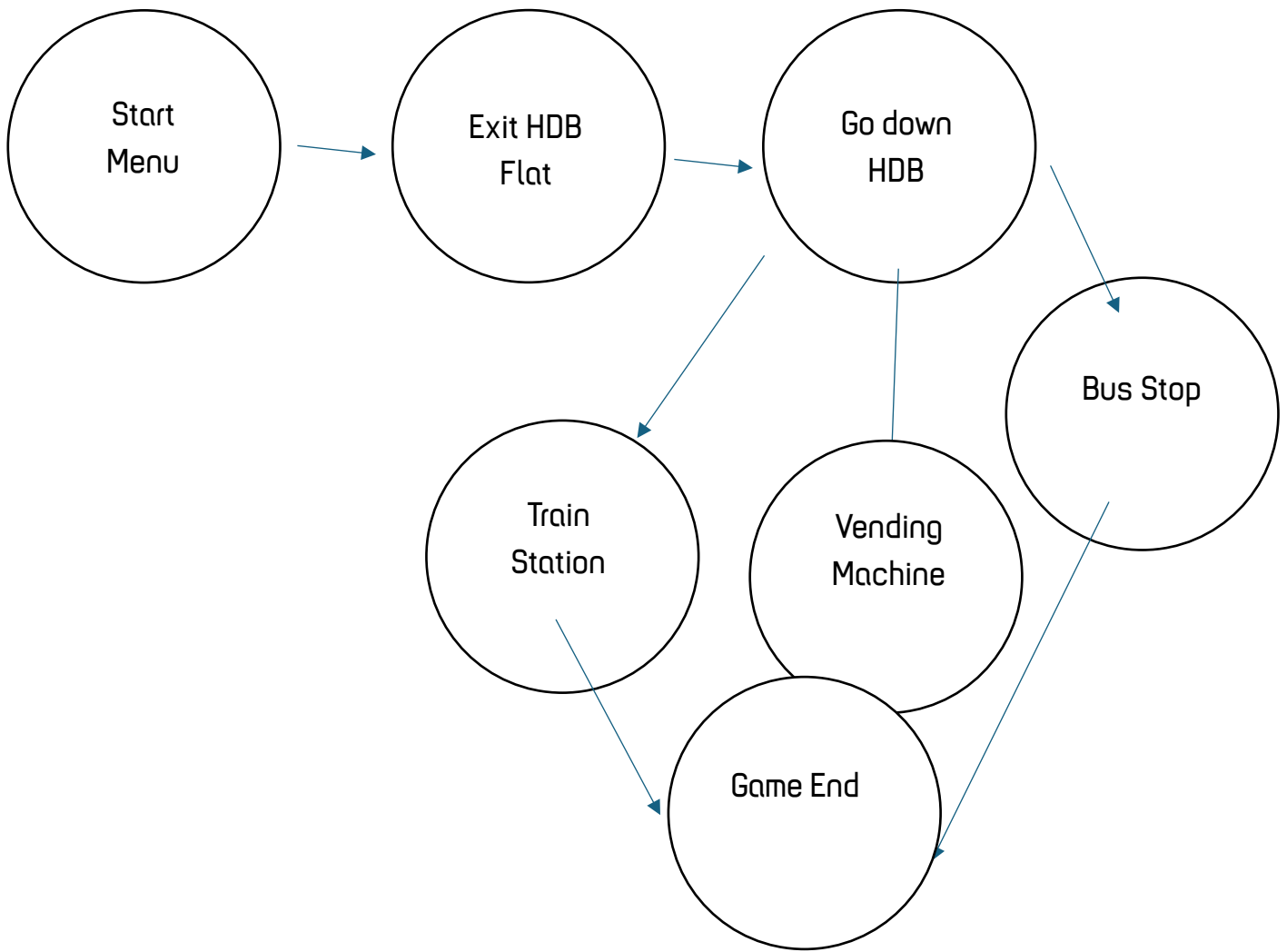
Technology Used in Usability Testing

Hardware

- Mark's Laptop

OS	Windows 11 IoT LTSC
Processor	AMD Ryzen™ 9 6900HS Mobile Processor (8-core/16-thread, 16MB cache, up to 4.9 GHz max boost)
Graphics	AMD Radeon™ RX 6800S, 8GB GDDR6
Display	ROG Nebula Display, 14-inch, QHD+ 16:10 (2560 x 1600, WQXGA), DCI-P3: 100%, Pantone Validated
Memory	40GB (8+32) DDR5 on board

Software

- Discord
- Figma
- Unity 2022.3.38f1

Usability Testing Script

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sota staircase Running Late Usability Testing Script

Adapted from https://digital.gov/resources/digitalgov-user-experience-resources/digitalgov-user-experience-program-usability-starter-kit/ → https://s3.amazonaws.com/digitalgov/_legacy-img/2014/01/usability-testing-script.doc

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Hi, _____. My name is _____, and I'm going to be walking you through this session today.

Before we begin, I have some information for you, and I'm going to read it to make sure that I cover everything.

We're asking people to try using an application that we're working on so we can see whether it works as intended. The session should take about fifteen minutes.

The first thing I want to make clear right away is that we're testing the application, not you. You can't do anything wrong here. In fact, this is probably the one place today where you don't have to worry about making mistakes.

As you use the application, I'm going to ask you as much as possible to try to think out loud: to say what you're looking at, what you're trying to do, and what you're thinking. This will be a big help to us in terms of understanding your experience.

Also, please don't worry that you're going to hurt our feelings. We're doing this to improve the application, so we need to hear your honest reactions. Any comments about the application are welcome.

If you have any questions as we go along, just ask them. I'll answer them immediately if I can, or after the test. And if you need to take a break at any point, just let me know.

Do you have any questions so far?

OK. Before we look at the application, I'd like to ask you just a few quick questions.

First, what's your occupation? What do you do all day?
Now, roughly how many hours a week altogether—just a ballpark estimate— would you say you spend using the Internet, at work, school, and/or at home?
What kinds of applications do you use daily? (in brief)
What are three tasks you think you should be able to complete in the application?

Intro questions - Open product to be tested:

OK, great. We're done with the questions, and we can start looking at things.

First, I'm going to ask you to look at this page and tell me what would you click on first? (30 seconds max.)

OK. Now let's look a little more around the page. You can scroll if you want to, but don't click on anything yet. Briefly, what do you think the purpose of the application is? (30 seconds max.)

Who do you think owns the application? (30 seconds max.)
Who is the target audience? (30 seconds max.)
What do you think you can do here? (30 seconds max.)

Instructions: Thanks. Now I'm going to ask you to try doing some specific tasks. And again, as much as possible, it will help us if you can try to think out loud as you go along

(Ask questions as needed. When all tasks are finished, continue below).

Debriefing

1. What do you think about the application? Is this something you would use?
2. What's your favourite thing about the application?
3. What's your LEAST favourite thing about the application?
4. Do you have any recommendations for changes to the way the application looks or works?

END TEST PORTION

Thanks, that was very helpful.
Do you have any questions for me, now that we're done?
Thank you so much for your help today. Your comments will help us create a better application.

Usability Testing Report

Objective

The purpose of this usability test was to evaluate the user experience of a prototype application designed to accompany a game. The session aimed to identify areas for improvement in the app's usability, layout, and functionality, focusing on how intuitive the interface is for a user with no prior exposure.

Key Findings

1. **Initial Impressions:**

   - The participant initially struggled to understand the purpose of the application.

2. **Task Analysis:**

   - **Navigation:**

     - The participant scrolled down the page and clicked on the menu as their first action. They found the menu layout intuitive but had difficulty understanding all the options presented.

     - They accurately identified the purpose of different sections, such as the leaderboard and wiki, but were unsure about the "layout" and "shop front" features without further exploration.

   - **Leaderboard Interaction:**

     - They found the cumulative score presentation somewhat confusing but understandable upon further explanation.

     - The participant did not initially realize that the leaderboard could be swiped to reveal more data, indicating a need for better visual cues or instructions.

   - **Pages:**

     - The participant appreciated the cleanliness and organization of the profile page. They suggested adding a feature to

highlight their position on the leaderboard within the page for better visibility.

- They also interacted with the wiki and layout pages, offering suggestions for improvement, such as **better map styling** and potentially adding GTA-like map features for route analysis.

3. **Target Audience Perception:**

   o The participant felt that the app was designed for users who enjoy repetitive, competitive gameplay. They described the target audience as those seeking a casual yet engaging gaming experience, possibly with speed-running elements.

4. **Areas for Improvement:**

   o **Visual Cues for Navigation:** The participant missed the ability to swipe on the leaderboard page, indicating that clearer visual cues or indicators are needed.

   o **Page Layout Terminology:** The term "layout" was found to be somewhat ambiguous. The participant suggested it could be confused with settings rather than a map or UI configuration page.

   o **Leaderboard Position Prominence:** Suggestions included implementing a feature to display the user's leaderboard position prominently within the profile or adding a border around the user's name in the leaderboard for better visibility.

   o **Map Design:** The participant compared the map layout to a GTA-style minimap, suggesting a more detailed map design with route planning capabilities could enhance usability.

5. **Positive Aspects:**

   o The participant enjoyed the leaderboard and profile features, noting their clean design and functionality.

   o They also found the application's overall design intuitive after initial exploration, with features that catered to their expectations.

6. **Negative Aspects:**

- The participant expressed that some page layouts could be improved, and the lack of a clear, interactive map design was a drawback

Recommendations

1. **Enhance Visual Cues:** Add clearer visual indicators to suggest swiping or interacting with elements like the leaderboard.

2. **Clarify Terminology:** Rename or provide context for ambiguous page titles like "layout" to ensure users understand their purpose.

3. **Profile Enhancements:** Implement features such as highlighting the user's leaderboard position within the profile for easier reference.

4. **Map Design Improvement:** Consider adopting a more detailed and functional map design like GTA-style maps to improve route planning and overall navigation within the app.

Conclusion

The usability testing session provided valuable insights into the application's strengths and areas for improvement. The participant's feedback emphasized the need for better visual cues, clearer terminology, and enhanced profile and map features. Implementing these recommendations can improve the user experience and make the application more intuitive and engaging for the target audience.

Jira Project Plan

Atlassian Jira was the agile project management platform used for the development of Running Late, the game, and the Application creation. Technical/non-user-facing tasks such as programming and non-UX related tasks were designated as normal TODOs, whereas anything UX related were designated as User Stories. All tasks were given story points regardless.
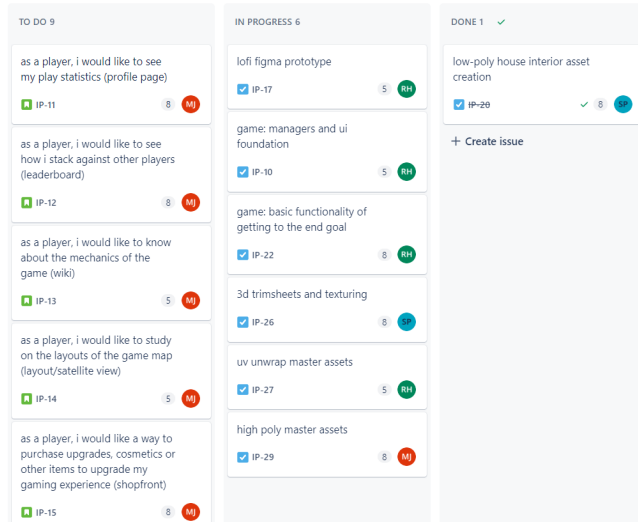
#1: ideation and groundwork

CLOSED SPRINT

Sprint goal goes here

Sprint start	Sprint end
2024/07/15	2024/07/22

#2: getting started

CLOSED SPRINT

Sprint goal goes here

Sprint start	Sprint end
2024/07/23	2024/07/30

Credits, Links and References

- Typefaces
    - [RL Madena](#) by [Roughline Types](#) [sota staircase Logo Font]: OFL-1.1
    - [GO Darkslide](#) by [griptype](#) (from [studio ¡muchogusto!](#)) [Running Late Logo Font, 'Running Portion"]: OFL-1.1
    - [GO Freakout](#) by [griptype](#) (from [studio ¡muchogusto!](#)) [Running Late Logo Font, 'Late' Portion]: OFL-1.1
    - [Fervojo](#) by [Reiya Watanabe (kohakuno)](#) [General Body Font in Game and Figma Prototype]: OFL-1.1
- Phone Images
    - https://support.apple.com/en-sg/111954
    - https://www.gsmarena.com/lg_nexus_5x-pictures-7556.php
- Hardware Research: Software Support Diagram: https://docs.flutter.dev/reference/supported-platforms