

Tab 1

Proposal of Final Idea - WanderBloom

1.0 Recap

Nature Journey

Problem Statement:

Urban lifestyles often isolate people from nature, which will lead to increased stress. Many people lack opportunities to connect with natural environments and experience tranquillity in their daily lives.

Proposed Solution:

Nature Journey offers a nature experience where users can simulate the feeling of being in a natural environment by scanning themed cards (e.g., forest, beach). The app provides immersive visuals and ambient sounds to help users relax and reconnect with nature anytime and anywhere.

Other Preliminary Ideas:

☰ Huey Yee's Three Preliminary Ideas

☰ Shim Yi Xun 0363292 Task 1 - Preliminary Ideas

2.0 Project Overview

Project Title: Wander Bloom

Tagline: *"Wander freely. Watch nature bloom in AR."*

WanderBloom is an immersive AR experience that brings nature to life through the simple action of scanning themed physical cards. Designed to be both calming and interactive, WanderBloom allows users to wander through different natural environments — such as forests, snowy landscapes, or coastal scenes — enriched with ambient sounds and interactive elements. Users can even combine two or more cards (e.g., *Forest + Water = Jungle*) to unlock new hybrid environments, enhancing the element of discovery and creativity.

Through activities like catching butterflies, picking flowers, or building a snowman, WanderBloom offers more than just visual scenery — it creates an engaging experience that connects users with the natural world in a magical and meaningful way. Built with Unity, this project aims to explore how augmented reality can enrich everyday experiences and provide moments of calm, joy, and wonder.

3.0 Problem Statement

While many AR applications offer visual nature experiences, they often lack meaningful interaction, creativity, and emotional connection with the environment. These apps tend to focus on static visuals or soundscapes without encouraging users to explore, combine, or engage with nature in imaginative ways. This results in reduced user engagement and missed opportunities for both entertainment and educational value, especially among younger audiences and creative minds.

4.0 Objectives

- To design an interactive AR experience that simulates natural environments using scannable physical cards.
 - To encourage engagement and exploration by enabling users to combine cards and unlock new nature-themed settings.
 - To incorporate interactive activities (e.g., catching butterflies, picking flowers, building snowmen) to enhance immersion.
 - To develop a creative and relaxing digital escape that connects users with the beauty of nature through technology.
 - To explore and demonstrate the potential of AR as a tool for entertainment, education, and mindfulness.
 - To provide a visually appealing and user-friendly AR interface developed using Unity and AR technologies.
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5.0 Target Audiences

1. Young Learners (Ages 8–14)

Curious and eager to explore, children in this age group are ideal for immersive and interactive educational content. They enjoy learning through play and can benefit from nature-themed AR to develop curiosity and appreciation for the environment.

2. Creative Hobbyists & Nature Lovers (Ages 15–30)

Individuals who love art, photography, nature, or journaling. These users appreciate relaxing, aesthetically pleasing apps and enjoy engaging with content that lets them

personalize their experience.

3. Educators & Parents

Teachers and parents are looking for tools that combine fun and education. They often seek applications that can keep children engaged while teaching real-world knowledge or environmental awareness.

6.0 User Personas

6.1 User Persona 1: Emily Tan

Age: 13

Gender: Female

Occupation: Student

Location: Kuala Lumpur, Malaysia

Biography:

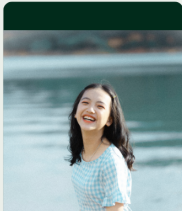
Emily is a curious middle schooler who enjoys science, drawing, and nature walks. She uses AR filters on social media and loves mobile games that involve exploration and creativity. Her parents support educational apps that are fun and safe.

Hobbies: Drawing, exploring parks, watching animal videos, reading fantasy books.

Goals: Learn about nature in a fun way; share cool discoveries with her friends.

Needs: Simple interface, colorful visuals, easy-to-understand interactions, and entertaining educational value.

User Persona 1



EMILY TAN

- Age: 13
- Gender: Female
- Occupation: Student
- Location: Kuala Lumpur, Malaysia

BIOGRAPHY

Emily is a curious middle schooler who enjoys science, drawing, and nature walks. She uses AR filters on social media and loves mobile games that involve exploration and creativity. Her parents support educational apps that are fun and safe.

HOBBIES

- Drawing
- Exploring parks
- Watching animal videos
- Reading fantasy books

GOALS

- Learn about nature in a fun way
- Share cool discoveries with her friends

NEEDS

- Simple interface
- Colourful visuals
- Easy-to-understand interactions
- Entertaining educational value

6.2 User Persona 2: Daniel Lim

Age: 23

Gender: Male

Occupation: University Student (Environmental Science Major)

Location: Penang, Malaysia

Biography:

Daniel is passionate about sustainability and nature. He enjoys apps that blend education and creativity. He's active on social media and frequently participates in nature-related clubs. He's also interested in AR/VR tech and enjoys discovering new apps.

Hobbies: Hiking, photography, journaling, exploring tech gadgets.

Goals: Use the app as a stress reliever and creative outlet; explore immersive nature scenes.

Needs: A visually pleasing experience, more advanced interactions, and optional educational facts.

User Persona 2



DANIEL

- Age: 23
- Gender: Male
- Occupation: University Student (Environmental Science Major)
- Location: Penang, Malaysia

BIOGRAPHY

Daniel is passionate about sustainability and nature. He enjoys apps that blend education and creativity. He's active on social media and frequently participates in nature-related clubs. He's also interested in AR/VR tech and enjoys discovering new apps.

HOBBIES

- Hiking
- Photography
- Journaling
- Exploring tech gadgets

GOALS

- Use the app as a stress reliever and creative outlet
- Explore immersive nature scenes

NEEDS

- A visually pleasing experience
- More advanced interactions
- Optional educational facts

6.3 User Persona 3: Aisyah Rahman

Age: 35

Gender: Female

Occupation: Primary School Teacher

Location: Johor Bahru, Malaysia

Biography:

Aisyah is a creative and caring educator who's always looking for new ways to engage her students. She uses tablets in class and enjoys apps that are both educational and entertaining. She often shares digital tools with fellow teachers.

Hobbies: Reading, gardening, DIY crafts, attending education webinars.

Goals: Introduce her students to interactive learning experiences; create fun and memorable classroom moments.

Needs: Child-friendly design, easy navigation, minimal setup, and high educational value.

User Persona 3



AISYAH RAHMAN

- Age: 35
- Gender: Female
- Occupation: Primary School Teacher
- Location: Johor Bahru, Malaysia

BIOGRAPHY

Aisyah is a creative and caring educator who's always looking for new ways to engage her students. She uses tablets in class and enjoys apps that are both educational and entertaining. She often shares digital tools with fellow teachers.

HOBBIES

- Reading
- Gardening
- DIY crafts
- Attending education webinars

GOALS

- Introduce her students to interactive learning experiences
- Create fun and memorable classroom moments

NEEDS

- Child-friendly design
- Easy navigation
- Minimal setup
- High educational value

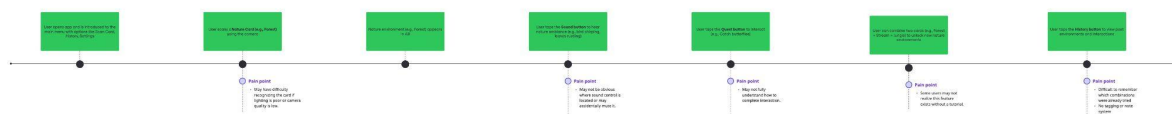
7.0 User Journey Map

Miro Board Link:

https://miro.com/app/board/uXjVlwE54yU=?share_link_id=662496266400

7.1 Current User Journey Map

Current User Journey Map - WanderBloom



Step	Description	Pain Points
1	User opens app and is introduced to the main menu with options like Scan Card, History, Settings	—
2	User scans a Nature Card (e.g., Forest) using the camera	May have difficulty recognizing the card if lighting is poor or camera quality is low
3	Nature environment (e.g., Forest) appears in AR	—
4	User taps the sound button to hear nature ambiance (e.g., bird chirping, leaves rustling)	May not be obvious where sound control is located or may accidentally mute it
5	User taps the "Quest" button to interact (e.g., Catch butterflies)	May not fully understand how to complete interaction or what the reward is
6	User can combine two cards (e.g., Forest + Stream = Jungle) to unlock new nature environments	Some users may not realize this feature exists without a tutorial
7	User taps the "History" button to view past environments and interactions	Difficult to remember which combinations were already tried; no tagging or note system

7.2 New User Journey Map - Proposed Solutions



Step	Description	Pain Points	Gain Points	Solution
1	User opens app and is welcomed by an interesting Loading Page	Might be slow on older devices	Creates a magical and welcoming mood	—
2	User is introduced to the main menu with icons + short descriptions (e.g., "Scan Nature Card to begin!")	—	Improves clarity and beginner-friendliness	—
3	User scans a Nature Card (e.g., Forest) using the camera	May have difficulty recognizing the card if lighting is poor or camera quality is low.	—	- If scan fails, a pop-up panel appears with friendly instructions like: • "Try moving to a brighter area" • "Hold your card flat and steady" • "Avoid glare or shadows" - This turns a negative moment into a

				learning opportunity and reduces user frustration
4	Nature environment (e.g., Forest) appears in AR	—	Nature transitions with ambient sound create immersive mood	—
5	User can toggle sound (bird chirps, leaves, stream) on/off with a floating icon	—	User can personalize soundscape and volume	—
6	User taps the Quest button to interact (e.g., Catch butterflies)	May not fully understand how to complete interaction.	—	• A brief, interactive tutorial appears before the quest starts — shows simple instructions like "Swipe to catch butterflies" or "Tap on the moving bug." • A subtle progress indicator (e.g., 3 butterflies to catch) keeps users informed • Smooth user experience reduces confusion and increases engagement

7	Progress bar or level meter appears to track achievements	—	Motivates continued engagement	—
8	User can combine two cards (e.g., Forest + Stream = Jungle) to unlock new nature environments	Some users may not realize this feature exists without a tutorial.	—	• Hint system or visual glow indicator on cards that can be combined • After a user scans one card, show a subtle hinting pop-up panel like: “Try adding another card!”
9	After finish with all the interaction with Nature Cards, User taps the History button on home page to view past environments and interactions with date and time records	- Difficult to remember which combinations were already tried - No tagging or note system	Gallery includes date stamps that aiding memory and progress tracking	—
10	User reaches the End Page after completing a nature session or quest (e.g., after exploring Jungle or completing “Catch Butterflies”)	May not realize what else can be explored or combined next	Shows a summary of completed environments and quests , e.g., “You’ve explored: Forest, Jungle” and “Quests completed: Catch Butterflies”	Adds gentle suggestions like “Try combining Desert + Starry Sky next!” or “New environments await you!”

8.0 Visualization Concepts

8.1 About Nature Cards

Nature Cards are designed for users to scan and activate in the AR app. Each card represents a different environment—like a forest and stream, which offers unique interactions when used in the AR experience.



i) Forest Card

A dense, green woodland filled with tall trees, gentle breezes, rustling leaves, and chirping birds. Users can explore, catch butterflies, or pick flowers.

ii) Stream Card

A peaceful, shallow stream winding through rocks and plants. Enjoy the gentle sound of flowing water and spot small fish or insects nearby.

iii) Snow Card

A snowy landscape with falling snowflakes and soft crunching snow underfoot. Users can build snowmen or throw snowballs.

iv). Mountain Card

A high-altitude rocky terrain with echoes of wind and eagle cries. Adds a sense of adventure and majestic views.

8.2 Card Combinations (3 Examples)

WanderBloom not only allows users to scan each card individually, but also encourage them to explore the **potential combinations** of different cards.

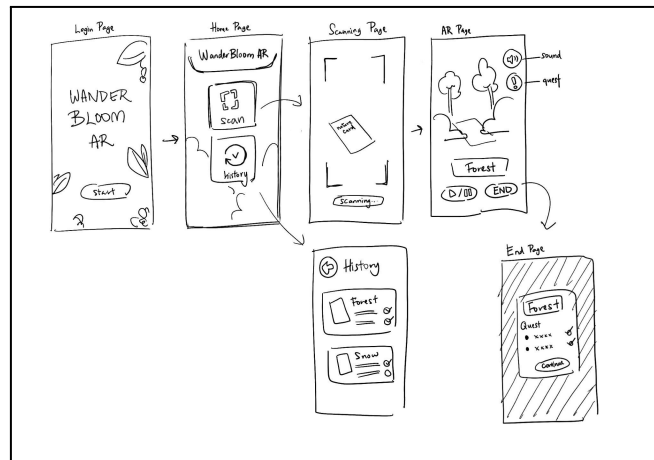
Card 1	Card 2	Resulting Combo	Description
Forest	Stream	Jungle	A vibrant and humid rainforest emerges, filled with dense greenery, flowing streams, and exotic wildlife. Users can interact by catching tropical butterflies, listening to frogs and birds, and collecting rare virtual plants hidden among the thick foliage.
Snow	Mountain	Snowy Peak	A majestic high-altitude snow-covered mountain landscape appears, where crisp winds blow and snow constantly falls. Users can build snowmen, throw snowballs at glowing targets, and discover ice caves with hidden animations.
Desert	Starry Sky	Star Dunes	A surreal and serene desert under a clear, star-filled sky, with shimmering dunes glowing in soft moonlight. Users can draw constellations in the sky, track glowing desert creatures, and uncover hidden stardust trails in the sand.

8.3 Interactive Elements per Environment

Environment	Interactive Features
Forest	Catch butterflies, pick flowers, interact with birds and animals.
Snowy Peak	Build a snowman, throw snowballs, leave footprints in the snow.
Ocean/Coast	Collect seashells, watch dolphins jump, skip stones into the sea.
Jungle	Swing on vines, follow animal tracks, discover hidden treasures.
Star Dunes	Draw on sand, uncover glowing stones, watch meteor showers.

8.4 Sketches of WanderBloom AR

The sketches, that guide us during the mockups.



8.5 UI Kits

To create our visual identity, we selected dark green as the primary colour, which embodies the richness and tranquillity of the natural environment. And we introduced bright pink as an accent colour – used sparingly to draw attention to key interactive elements like buttons or highlights, ensuring they stand out but don't detract from the overall design.

For the fonts, especially the logo and heading, they are slightly playful with clean, modern touches—capturing the spirit of creativity and exploration that WanderBloom encourages.

To keep the UI elements consistent, we used Stratis UI as the icon set. Its minimalistic and friendly style blends perfectly with the overall aesthetic, ensuring that the icons are clear and easy to use, and visually harmonious with the rest of the design.

UI Kits

Logo Chunko Bold
Heading Braah One
text Inter

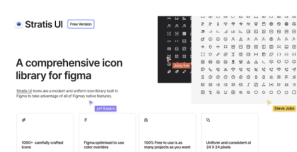
Primary Colour



Secondary Colour



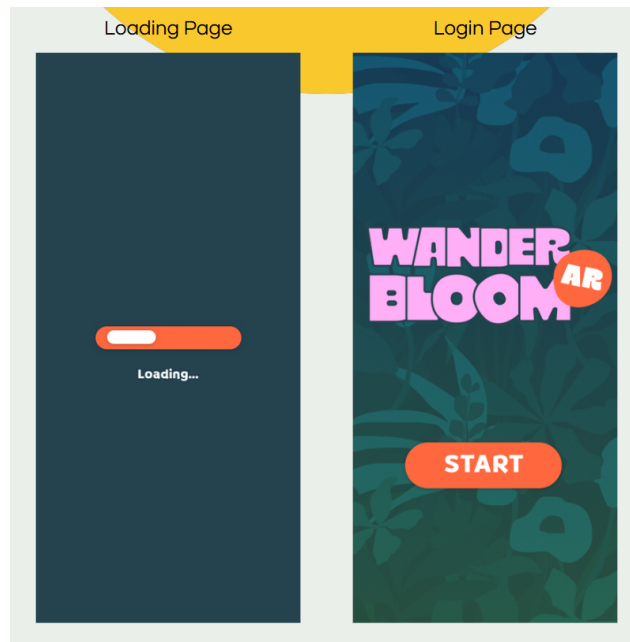
Icon Sets



8.6 Mockups

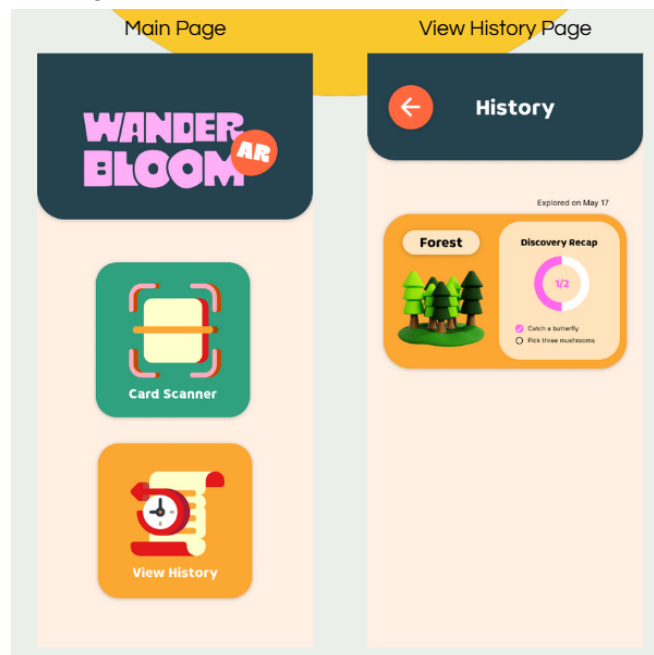
Loading Page & Login Page

These pages are designed to give users a calm and welcoming first impression, using the nature-inspired theme of WanderBloom.



Main Page & View History Page

The **Card Scanner** feature allows users to activate nature cards in real time and experiment with different combinations to unlock new environments. Meanwhile, the **View History** page lets users revisit the environments they've previously explored, along with a summary recap of their discoveries and progress.



Scanning Page & AR Environment Page

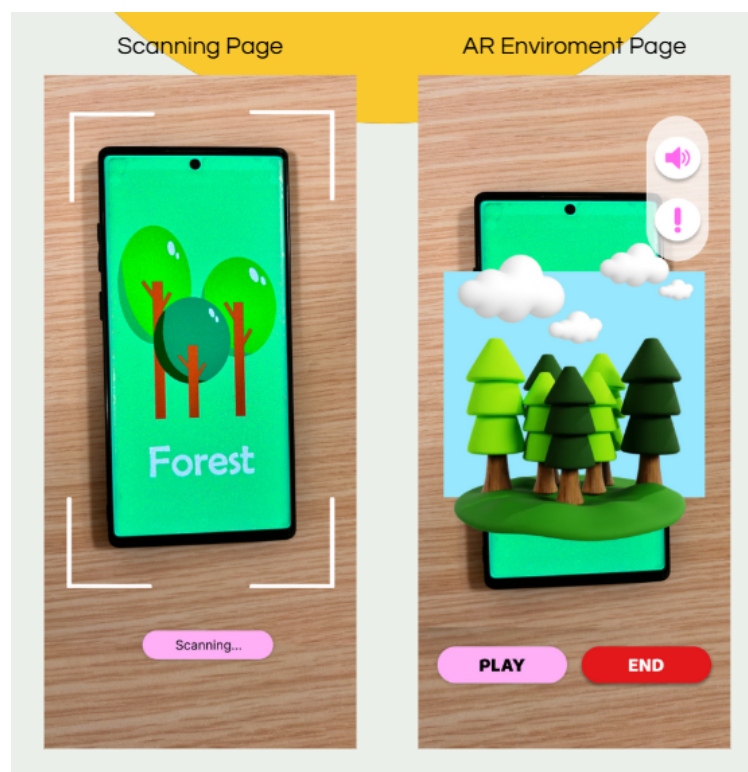
When a user scans a nature card—such as the Forest card—the AR app will detect it and project a corresponding 3D environment into the real world. Once the scan is successful, the digital scene appears overlaid through the device's camera, creating an immersive augmented reality experience.

Below the 3D model, there are two main control buttons:

- **Play:** Starts the animated movements of the environment, such as trees swaying gently or butterflies flying across the screen.
- **End:** Stops the animation and exits the AR view, returning the user to the main page.

In addition to these controls, the AR page also includes two functional features:

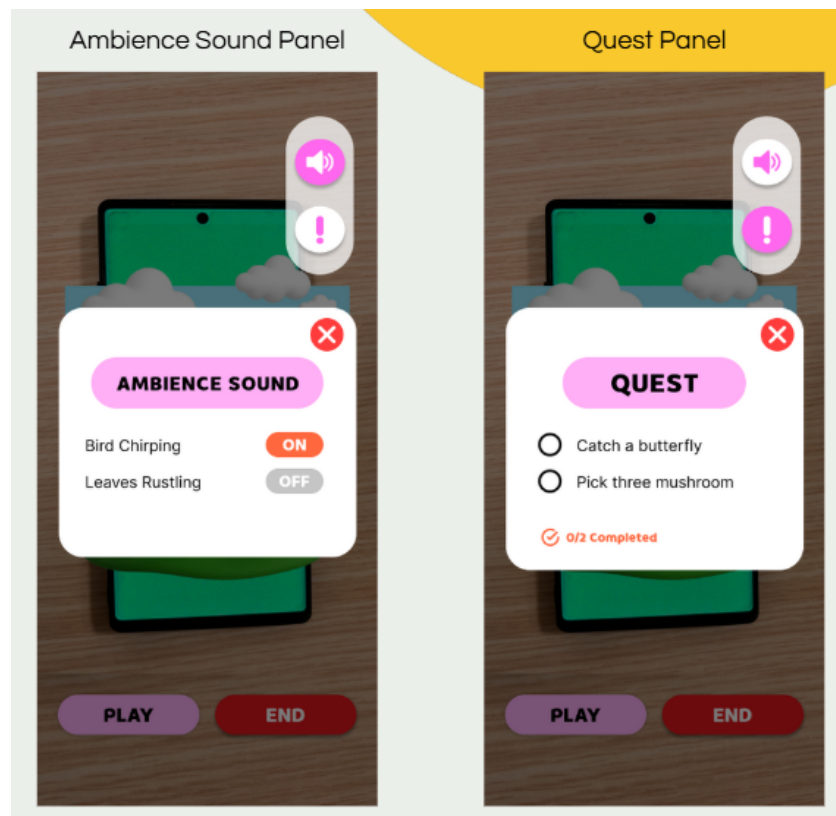
- **Ambience Sounds**, which allow users to adjust or experience natural background audio like flowing water or chirping birds.
- **Quests**, which provide simple interactive challenges to encourage user engagement and exploration within the AR scene.



Features: Ambience Sound Panel & Quest Panel

The **Ambience Sound Panel** allows users to adjust and experience natural background sounds—such as birds chirping or leaves rustling—to enhance the sense of immersion within the AR environment.

At the same time, the **Quest Panel** introduces a light layer of gamification, encouraging users to engage more deeply by completing small exploration tasks, like catching a butterfly or collecting three mushrooms within the scene.

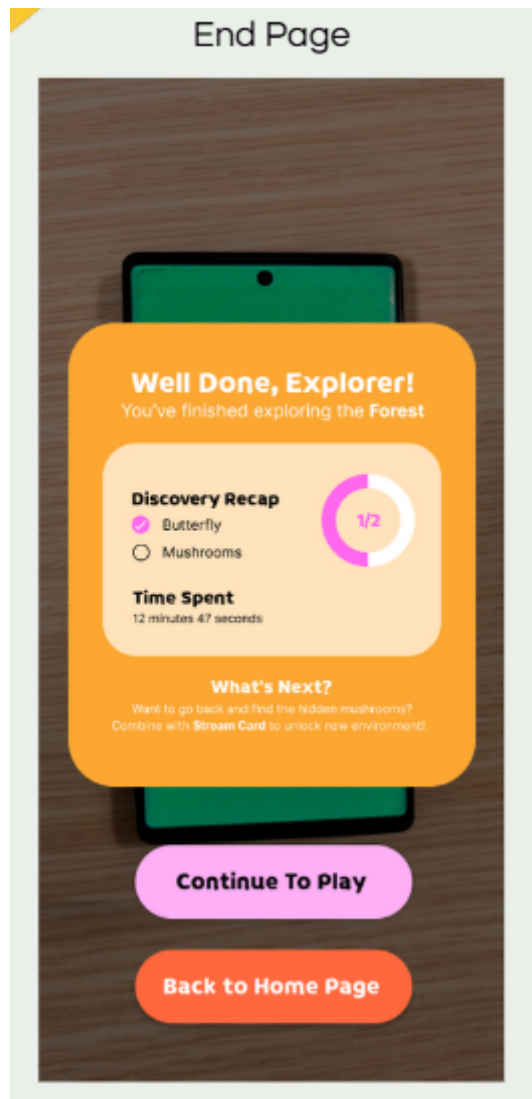


End Page

Finally, when the user taps the **'End'** button, a **summary achievement screen** appears. This screen provides an overview of what the user accomplished during their exploration—such as the **number of quests completed**, the **total time spent**, and a special **'What's New'** section.

The 'What's New' section is designed to spark curiosity and motivate users to return for future sessions by highlighting new environments or interactions they haven't explored yet.

At the bottom of the screen, two buttons are provided: one to **continue exploring**, and another to **return to the Main Page**, giving users the freedom to decide their next step.



9.0 Analysis of Current Experience

Current AR nature apps primarily focus on passive viewing, offering limited user interaction and minimal environmental variety, which reduces user engagement and creative exploration.

Key Points:

- **Limited Interactivity:** Most apps only allow users to view static nature scenes or listen to ambient sounds, without the ability to interact meaningfully with the environment.
- **Lack of Environment Fusion:** Existing experiences rarely support combining different nature elements (e.g., forest + stream), which restricts imaginative

storytelling or scene-building.

- **Short Engagement Time:** Due to the absence of dynamic elements or game-like tasks, users tend to lose interest quickly and do not revisit the app regularly.

10.0 Comparison with Similar Solutions

App Name	Strengths	Limitations
Seek by iNaturalist	Great for plant identification	Limited interactivity, no immersive environments
Civilisations AR	Detailed 3D models of artifacts	Not nature-focused, mostly museum objects
Wonderscope	Story-based AR for kids	Fictional themes, not based on real nature

10.1 How WanderBloom AR is better:

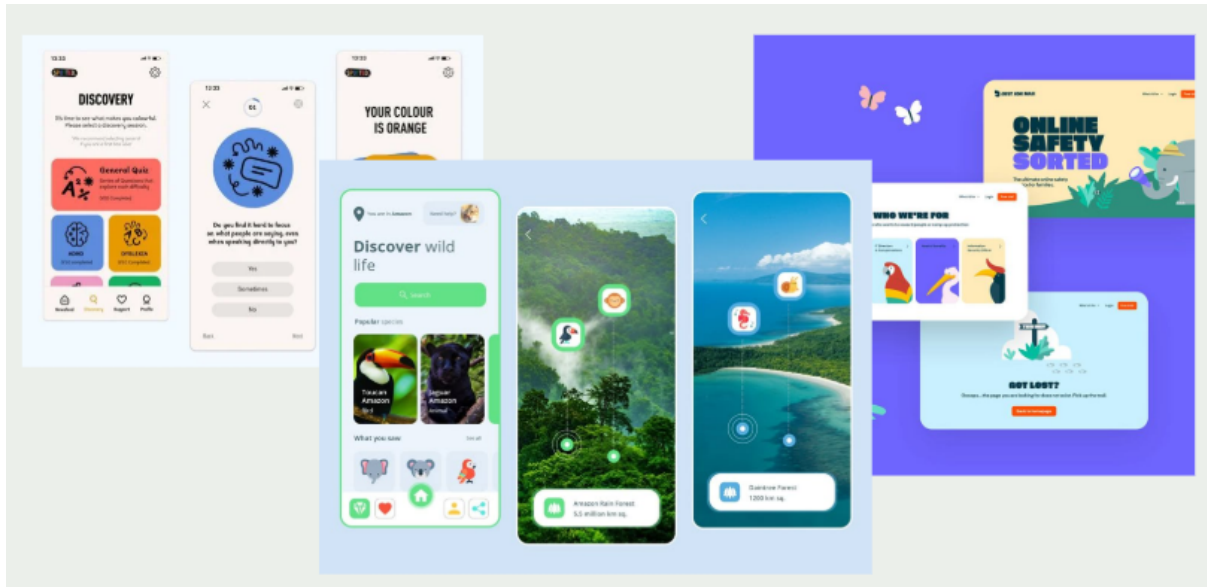
- Combines learning and creativity with **interactive AR elements**. **No pressure to “study”** – it’s like a virtual nature walk.
- Allows **environmental blending** through card combos, which encourages imagination and observation skills
- Provides **enjoyment and exploration** with ambient design.

11.0 Conclusion

WanderBloom is an enchanting and educational AR experience crafted for curious minds of all ages. By merging creativity with immersive technology, it allows users to explore, interact, and learn within beautifully imagined natural environments. Through card-based combinations, users not only witness nature but also shape it—building their own magical journeys filled with discovery and wonder.

Step into WanderBloom—where nature meets imagination.

12.0 References



User Journey Map

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