Congratulations on completing

ARTGR5400

Design for Behavioral Change

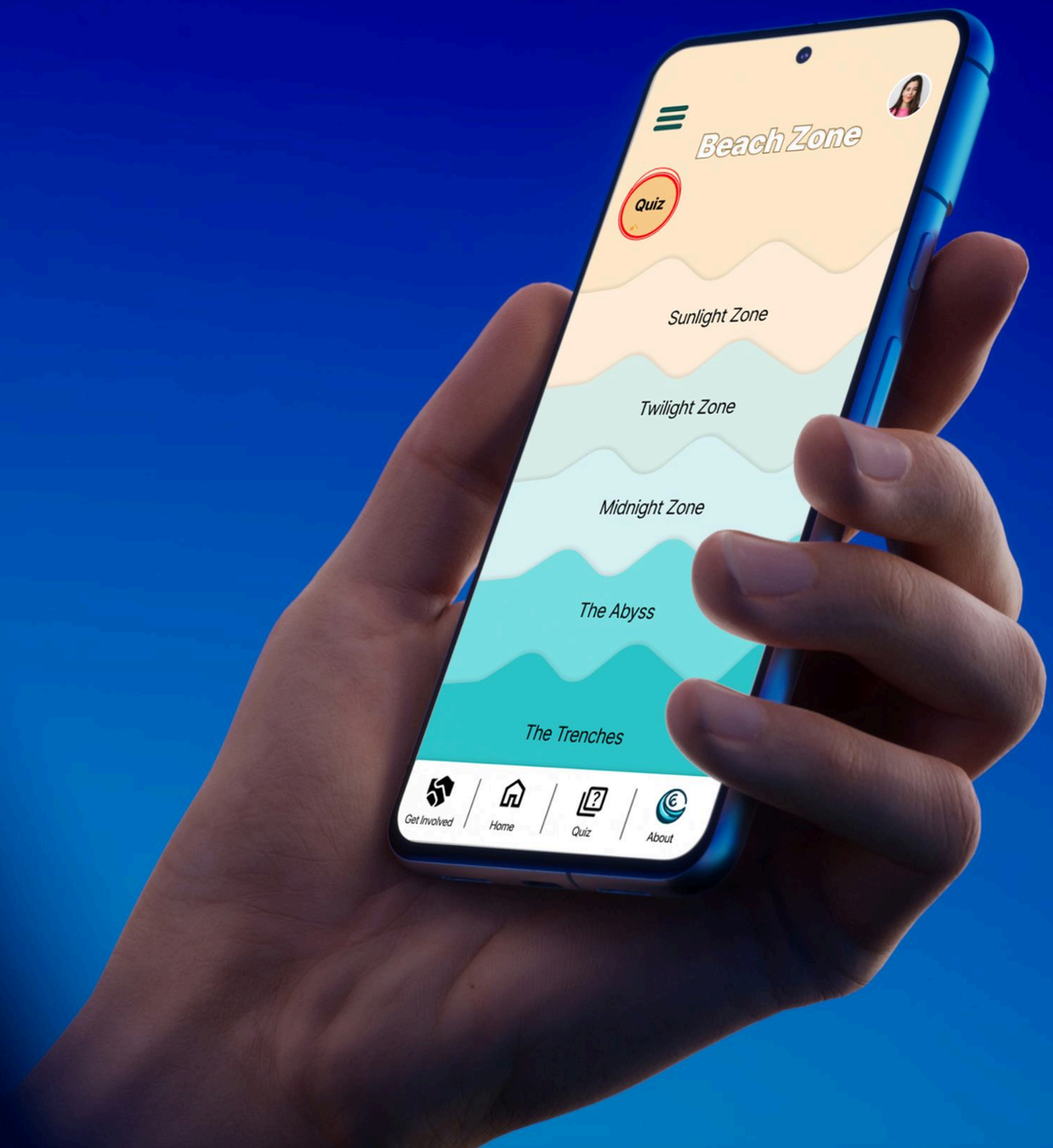
at Iowa State University





By Aaron Yang, the course instructor

EcoWave


Beach Zone
Quiz
Sunlight Zone
Twilight Zone
Midnight Zone
The Abyss
The Trenches
Get Involved
Home
Quiz
About

Introduction

Our product will provide information about marine species and habitats, inspiring users to engage in conservation efforts and become advocates for marine biodiversity.

The Ideation phase of this project was collaborative, while the Design phase was conducted individually.

Learning Objectives

Target Action: Our product will provide information about marine species and habitats, inspiring users to engage in conservation efforts and become advocates for marine biodiversity.

Design Overview

- This app enables users to learn about ocean inhabitants and engage in ocean conservation activities. It also provides news on marine health and ways to support ocean preservation.

- The design was created using Figma.



Ideation



Mary

The research Biologist

Target Action: Organize and execute regular volunteer programs, beach clean-ups, and community science initiatives with the aim of actively participating in and contributing to marine conservation efforts.

Key Words :

Animals

Being happy

Peacefully

Simple Bio:
28 years old, works as a research Biologist while specializing in animal behavior at Iowa State University Cares more about animal wellbeing.

Prior Experience with action

Being a biologist and a teacher she's taught on how to conserve eco life and animal wellbeing regularly.

Prior Experience with the similar product

Being a biologist and a teacher she's taught on how to conserve eco life and animal wellbeing regularly.



Ava
The Guardian

Target Action: User wants to learn about marine species and habitats to inspire to engage in conservation efforts and become advocates for marine biodiversity.

Keywords

AquaGuardian

Bio

Ava has a moderate understanding of marine life, rating her knowledge as a 5 out of 10.She is environmentally conscious, interested in sustainability, and is affected by the effectiveness of local recycling systems.

Prior Experience with the action

No real experience really.

Prior Experience with the similar products

Worked with some educational apps before but finding them boring and it was not about her interest.



Mahta
The Nature lover

Target Action: Encourage users to adopt sustainable practices such as reducing pollution in water bodies (limit use of plastic, use of chemicals), and reducing purchases of endangered Marine species souvenirs, such as Nautilus.

Keywords

Ocean Stewards

Bio

Mahta is a 28-year-old environmental consultant with a love for the ocean and marine life. She enjoys spending her free time participating in beach clean-ups and volunteering for local conservation organizations. Despite her passion, Mahta acknowledges that there's always more to learn and do to protect our oceans.

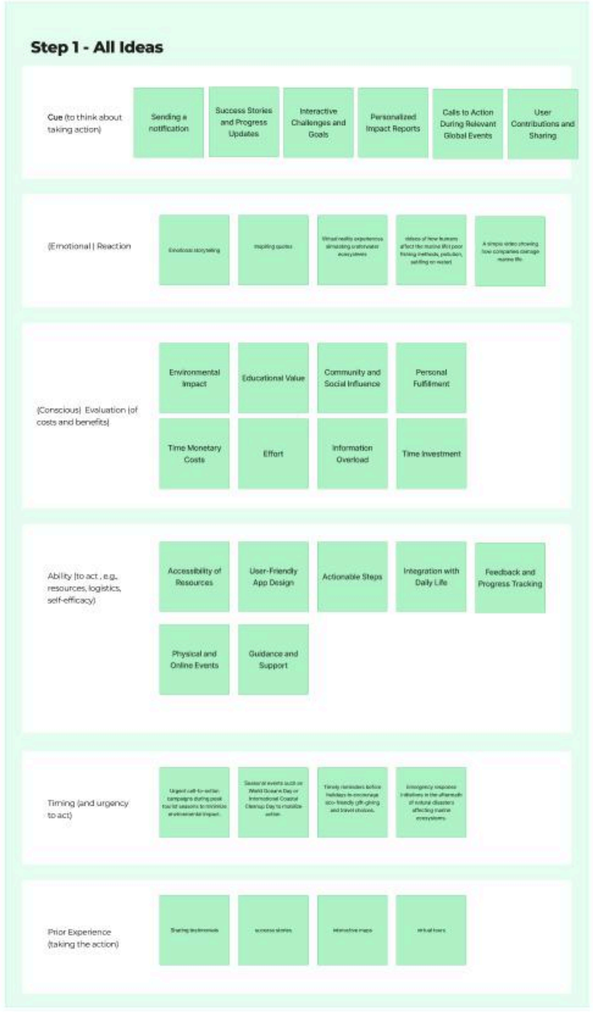
Prior Experience with the action

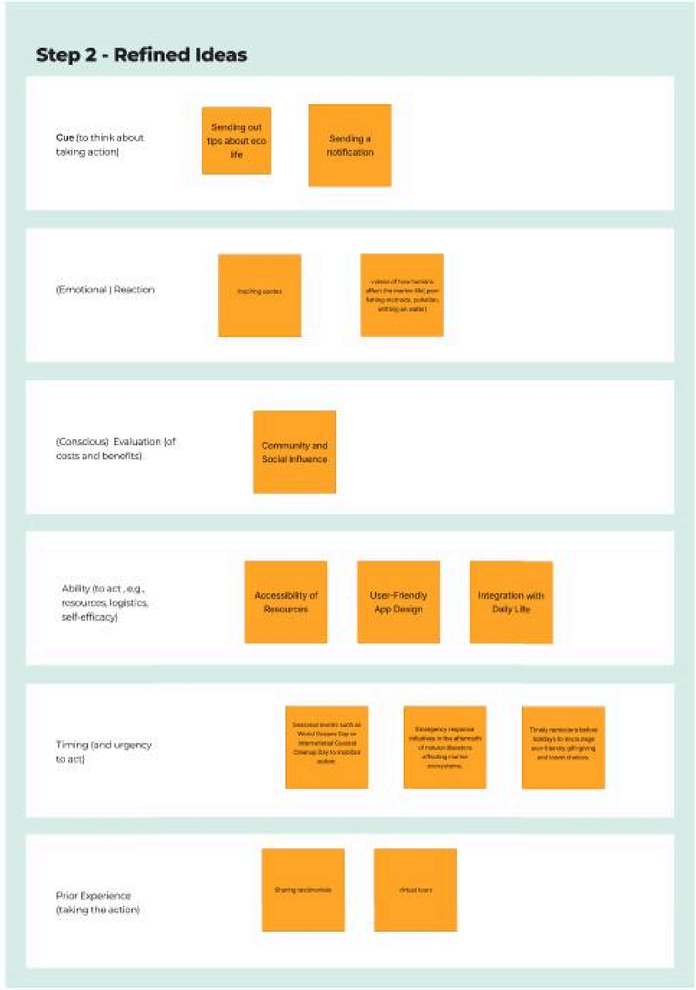
A bit in beach clean-ups and volunteering for local conservation organizations.

Prior Experience with the similar products

Mahta occasionally uses environmental apps and is familiar with ocean cleanup technologies. She recognizes the potential of digital tools in promoting ocean conservation education and engagement.

Interventions





Final

- Sending out tips about eco life
- Inspiring quotes
- User-Friendly App Design
- Sharing testimonials
- Seasonal events such as World Oceans Day or International Coastal Cleanup Day to mobilize action.
- Community and Social Influence

Behavioral Map

Our product will provide information about marine species and habitats, inspiring users to engage in conservation efforts and become advocates for marine biodiversity.

Start Point:
User downloads the app out of...

Learn about Marine Life

Interact with Educational Content

Participate in Conservation Efforts

Engage with Community

Advocate for Marine Life

actively participate in and promote marine conse...

Barrier:
User may feel overwhelmed by the amount of inf...

Barrier:
Content may not engage all users equally.

Barrier:
Users might not know how to translate knowle...

Barrier:
Users may be shy or reluctant to engage with the...

Barrier:
Users may not feel confident enough to advocate for m...

Psychological Barrier:
Presenting too much information at once c...

Opportunity:
Offer a guided tour or beginner's area to introduce basic conc...

Opportunity:
Use interactive content like quizzes and games to make l...

Opportunity:
Provide clear, simple actions users can take to help with marine c...

Opportunity:
Create introductory community events or discussions to enco...

Opportunity:
Provide advocacy training and pre-written letters to poli...

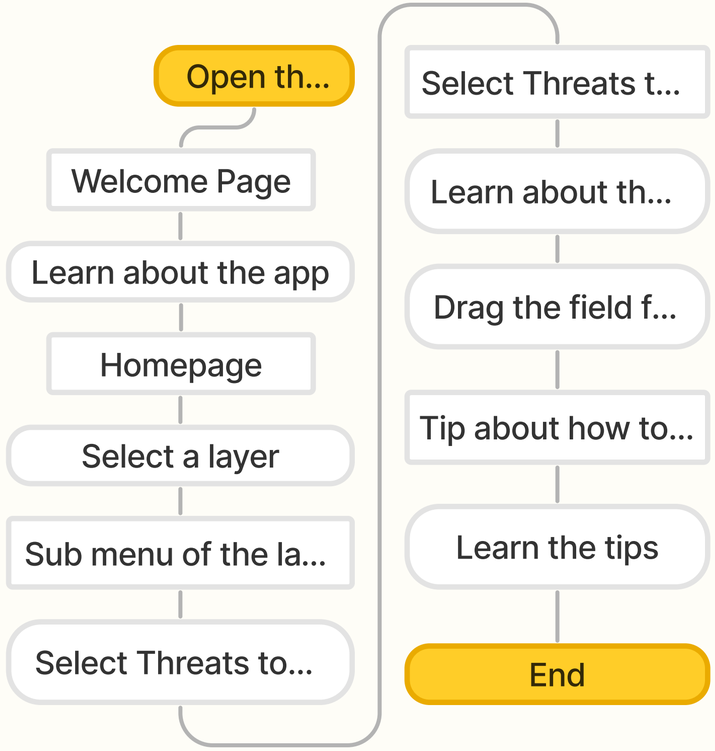
Value Proposition

List of expected features for the application:

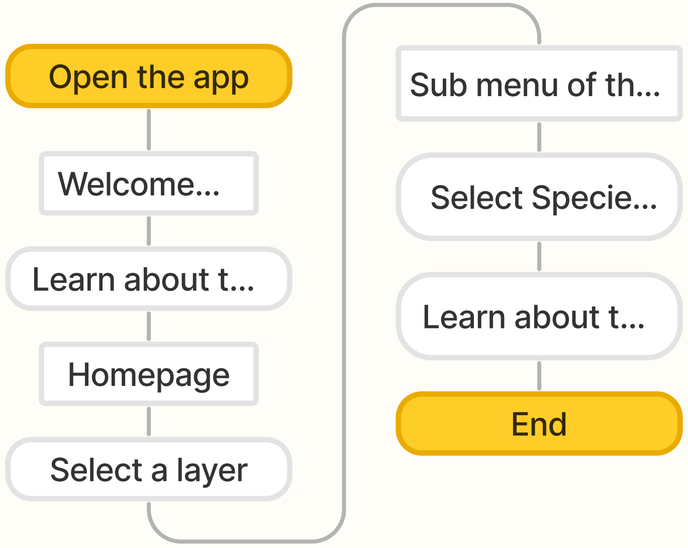
1. Learn about the Ocean
2. Learn about the habitant of ocean
3. Quiz section to add challenges to the learning process
4. News Section
5. Events Section

User Flow

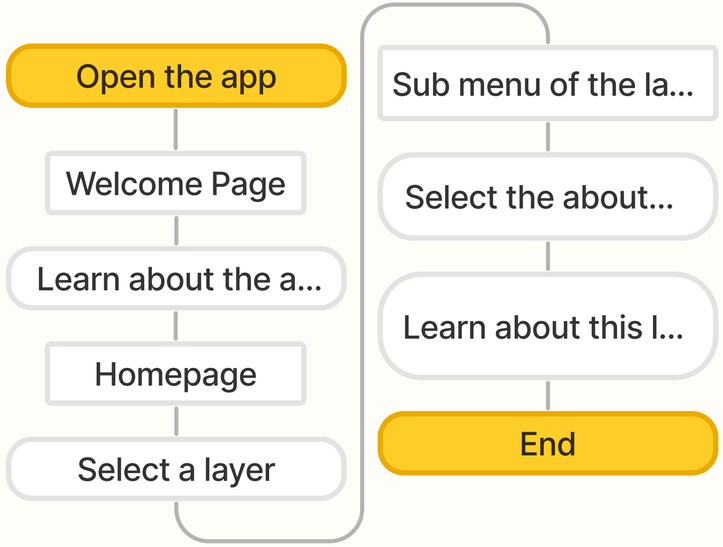
Learn about the
Threats of a Level



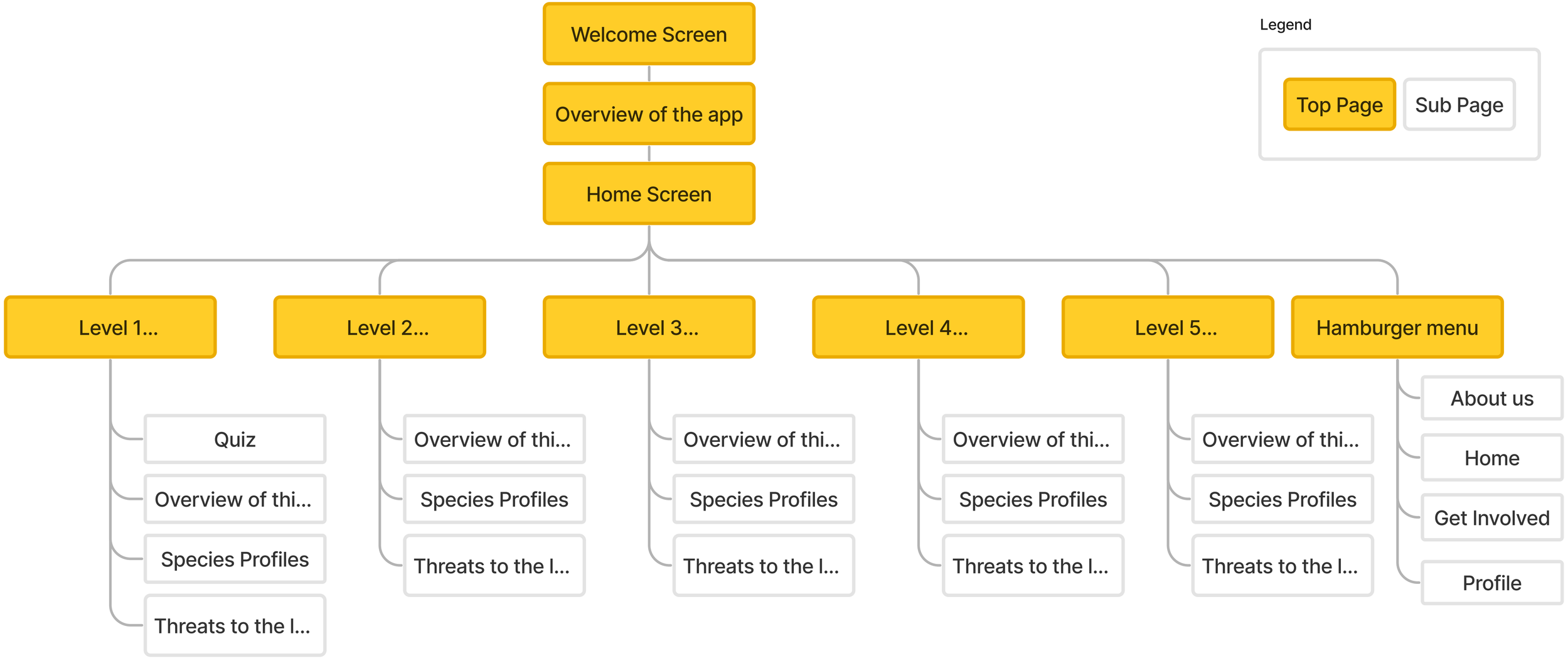
Learn about the
species of a Level



Learn about the
each level of ocean

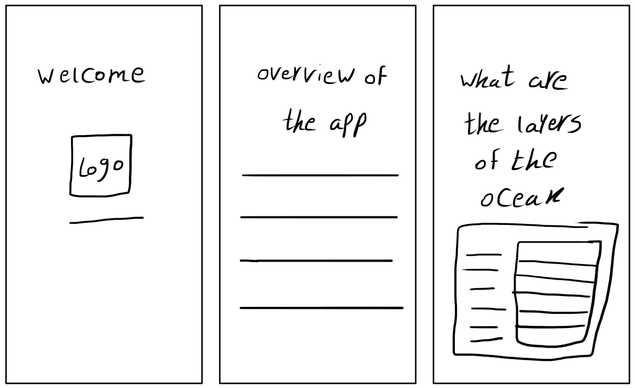


sitemap


Welcome Screen
Overview of the app
Home Screen
Level 1...
Level 2...
Level 3...
Level 4...
Level 5...
Hamburger menu
Quiz
Overview of thi...
Species Profiles
Threats to the l...
Overview of thi...
Species Profiles
Threats to the l...
Overview of thi...
Species Profiles
Threats to the l...
Overview of thi...
Species Profiles
Threats to the l...
Overview of thi...
Species Profiles
Threats to the l...
About us
Home
Get Involved
Profile
Legend
Top Page
Sub Page

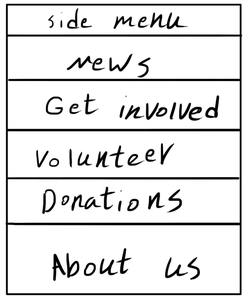
Sketches

Welcome Pages



Homepage



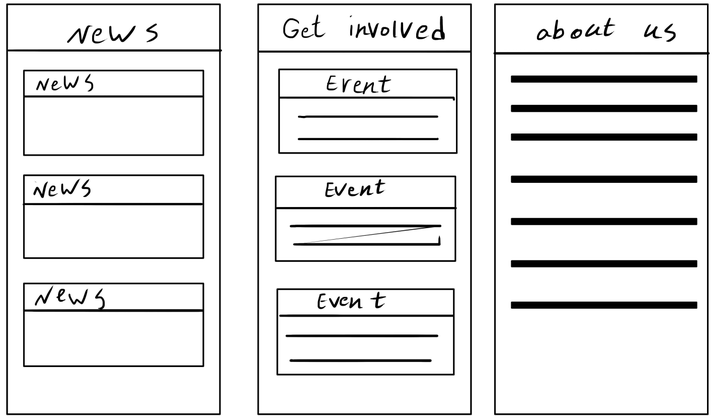


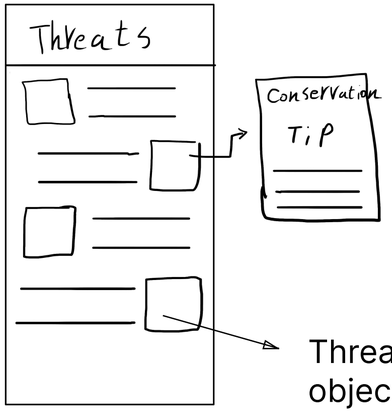
Homepage

Sub page of levels

Overview of level







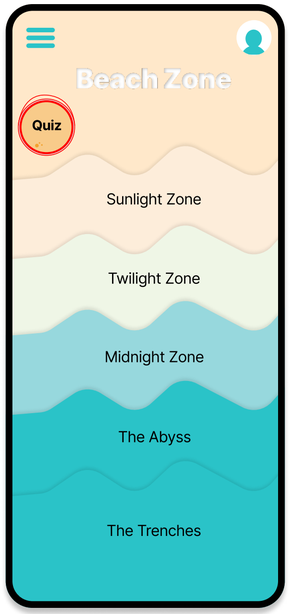
If user tab on the object it will be removed and tip will be shown.

Threats objects

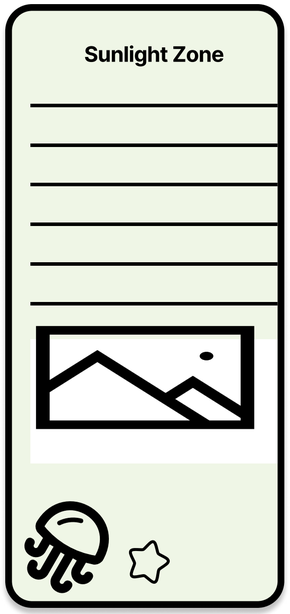


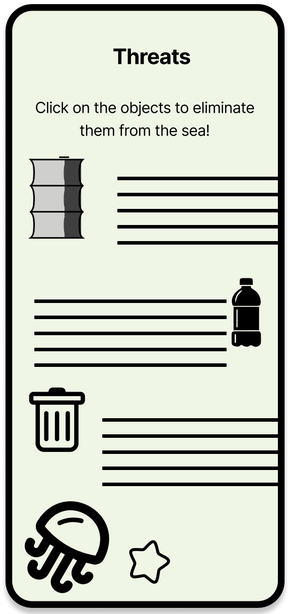
Lo-Fi Design

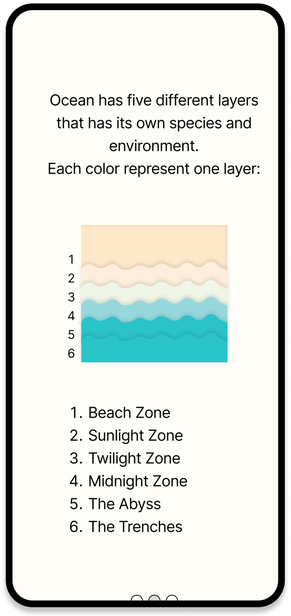
Low-Fidelity Prototype

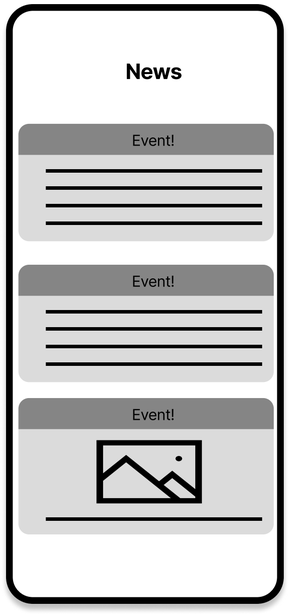


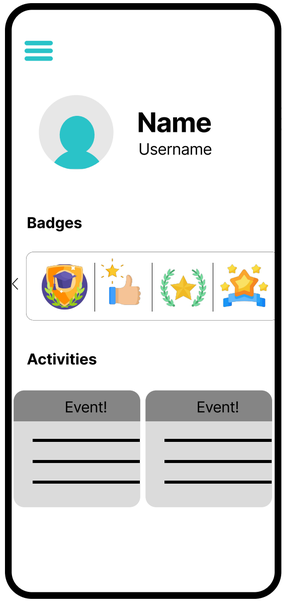


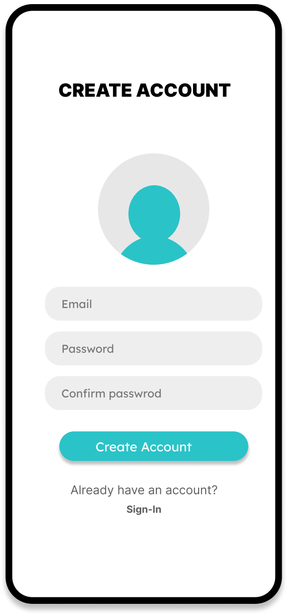










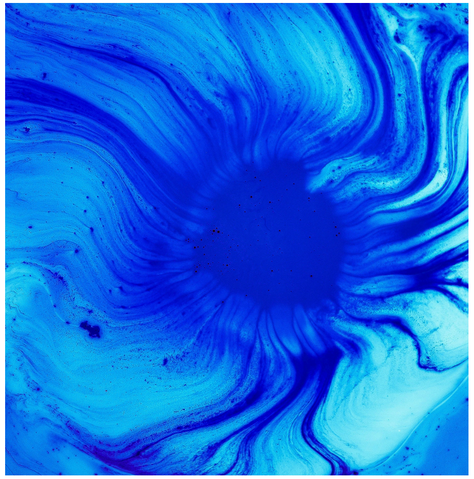


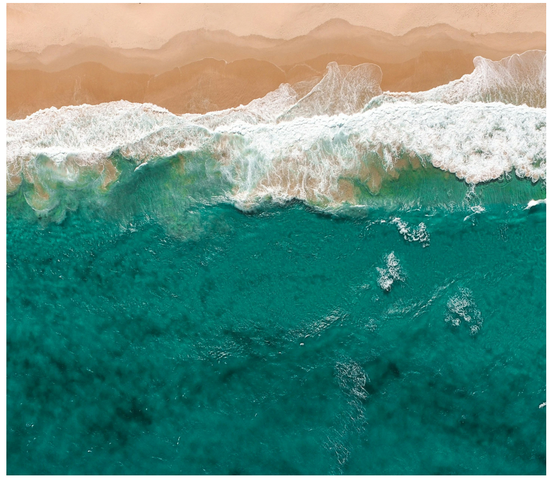


Style & Components

MoodBoard





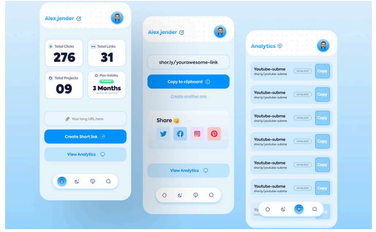


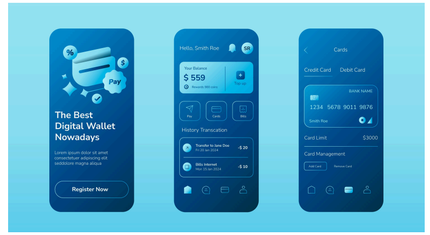

WORLD
OCEAN
DAY
8TH OF JUNE

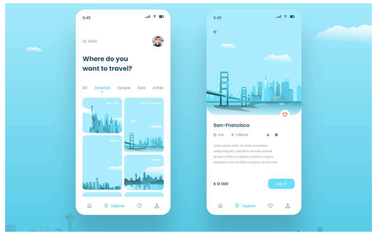







Alex Jender
276
31
09
3 Months
Create Short link
View Analytics
Copy to clipboard
Share
Analytics


The Best
Digital Wallet
Nowadays
Register Now
Hello, Smith Roe
$ 559
History Transcation
Cards
Credit Card
Debit Card
1234 5678 9011 9876
Card Management


Where do you
want to travel?
San-Francisco


Log in
to your account
Website.com
Search
Select Flight

Style



Blanched Almond

#FFE9CB

Sea Green

#2BACA6

Primary **Secondary**

Green
#00EB7A

Red
#EF0000

Text

SF Pro Regular/14

SF Pro Medium/14

SF Pro Bold/14

SF Pro Regular/16

SF Pro Medium/16

SF Pro Bold/16

SF Pro Regular/20

SF Pro Medium/20

SF Pro Bold/20

Title

SF Pro Regular/20

SF Pro Medium/20

SF Pro Bold/20

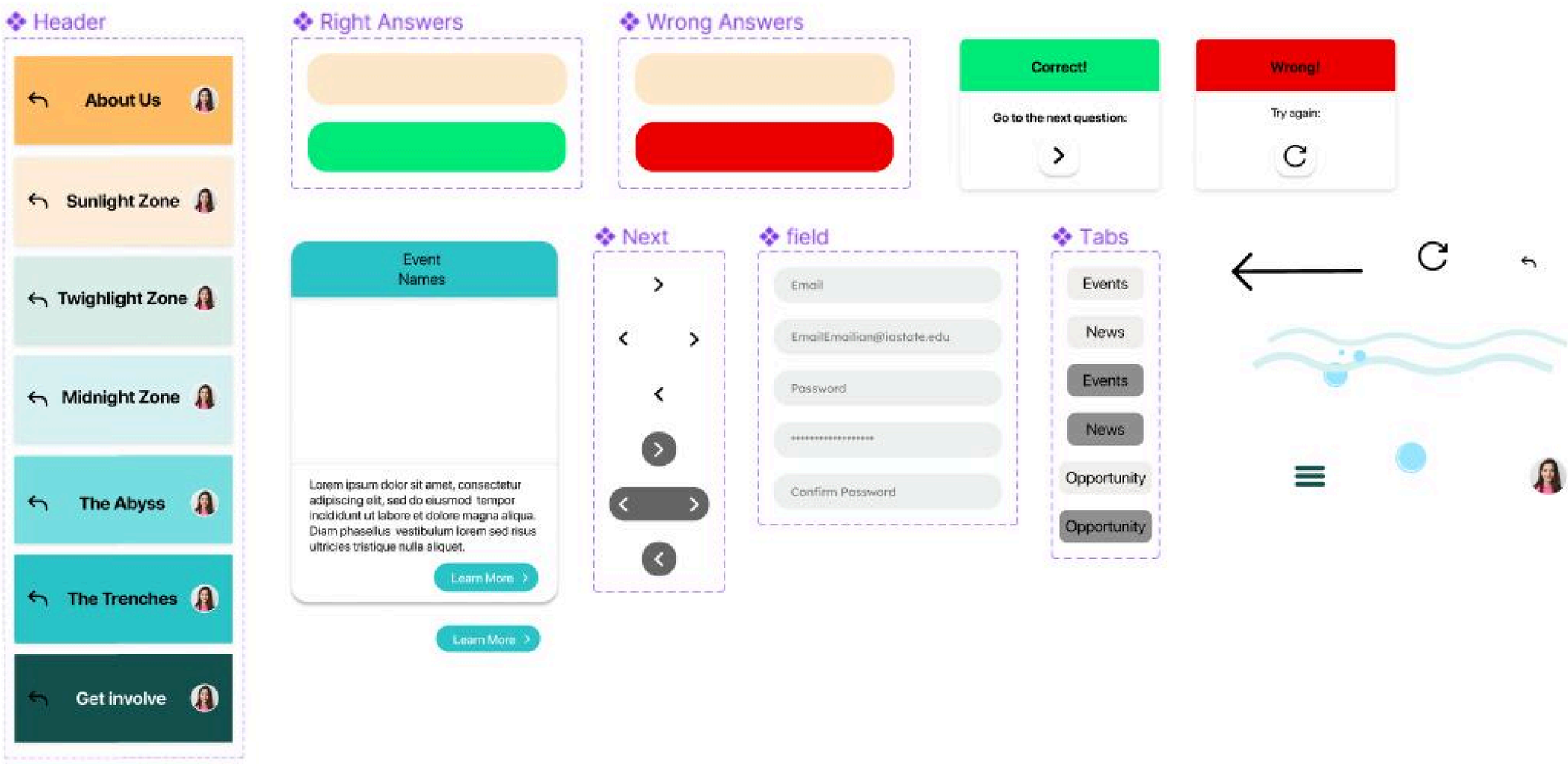
Display

SF Pro Regular/20

SF Pro Medium/20

SF Pro Bold/20

Components


Header
About Us
Sunlight Zone
Twighlight Zone
Midnight Zone
The Abyss
The Trenches
Get involve
Right Answers
Wrong Answers
Correct!
Go to the next question:
Wrong!
Try again:
Event
Names
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Diam phasellus vestibulum lorem sed risus ultricies tristique nulla aliquet.
Learn More
Learn More
Next
field
Email
EmailEmailian@iastate.edu
Password
Confirm Password
Tabs
Events
News
Events
News
Opportunity
Opportunity



Hi-fi & Mockups

Beach Zone

Quiz

Sunlight Zone

Twilight Zone

Midnight Zone

The Abyss

The Trenches

Get Involved | Home | Quiz | About

Beach Zone

Quiz

Sunlight Zone

About the Level

Species

Threats

Twilight Zone

Midnight Zone

Get Involved | Home | Quiz | About

First Quiz!

Congratulations!
You've answered correctly to your first quize!

The ocean has five different layers, each with its own types of animals and surroundings. In the app each layer is shown as a different color:

Beach Zone

Sunlight Zone

Twilight Zone

Midnight Zone

The Abyss

The Trenches

Parisa Ahmadi

Parisah

Badges

Activities

National Environmental Justice Conference

The Wonders of Water

Get Involved | Home | Quiz | About

Quizes

Sunlight Zone

Twilight Zone

Midnight Zone

The Abyss

The Trenches

Get Involved | Home | Quiz | About

Sunlight Zone

Which of the following layers of the ocean is characterized by complete darkness, and hosts unique life forms that have adapted to live without sunlight?

Sunlight Zone

Midnight Zone

Abyss Zone

Trenches Zone

1/10

Sunlight Zone

What is the main characteristic of the sunlight zone in the ocean?

Deepest, no light

Uppermost, receives sunlight

Contains thermal vents

Mostly frozen water

2/10

Plastic pollution:

Plastic pollution in the ocean endangers marine life, accumulates as debris, and disrupts ecosystems by entering the food chain.

Oil Spills:

Oil spills in the ocean cause devastating environmental damage, affecting marine and coastal ecosystems through toxic contamination and physical harm to wildlife.

Oil Spills:

Intensive fishing practices in the sunlight zone can lead to the depletion of key species, disrupting the food chain and marine ecosystems.

Get Involved | Home | Quiz | About

Creatures of Sunlight

Clownfish

Clownfish thrive among the protective tentacles of sea anemones in shallow, warm waters of the Pacific and Indian Oceans.

Get involve

Global Coalition Launches New Initiative for Ocean Conservation

Mike Smith
BBC new, 20 March 2024

The "Blue Harmony" Initiative, a groundbreaking international effort, was recently launched with the ambitious goal of protecting 30% of the world's oceans by 2030. This initiative brings together governments, environmental organizations, and stakeholders from various sectors to collaborate on enhancing marine

Get Involved | Home | Quiz | About

National Environmental Justice Conference

MICHIGAN ENVIRONMENTAL JUSTICE CONFERENCE

ADVANCING ENVIRONMENTAL JUSTICE: WORKING TOGETHER TOWARD PROGRESS

The "Blue Harmony" conference, spanning three days, is set to bring together leaders and experts from diverse sectors to tackle environmental justice issues related to marine conservation. The conference agenda is rich with interactive sessions and case studies, emphasizing capacity building and providing technical assistance. Participants will engage in in-depth discussions aimed at developing practical strategies and collaborative efforts to enhance global marine protection efforts. This event is a significant step towards fulfilling the ambitious goal of safeguarding 30% of the world's oceans by 2030, focusing on equitable and sustainable approaches.

RSVP

Events | News | Opportunity

Events

National Environmental Justice Conference

MICHIGAN ENVIRONMENTAL JUSTICE CONFERENCE

ADVANCING ENVIRONMENTAL JUSTICE: WORKING TOGETHER TOWARD PROGRESS

Over three days, leaders from various sectors will meet to discuss environmental justice, focusing on capacity building and technical assistance through interactive sessions and case studies.

Learn More

The Wonders of Water

Sensory-Friendly Evening

The Wonders of Water!

Get involve

Global Coalition Launches New Initiative for Ocean Conservation

Mike Smith
BBC new, 20 March 2024

The "Blue Harmony" Initiative, a groundbreaking international effort, was recently launched with the ambitious goal of protecting 30% of the world's oceans by 2030. This initiative brings together governments, environmental organizations, and stakeholders from various sectors to collaborate on enhancing marine

Get Involved | Home | Quiz | About

Email

Password

Log in

Don't have an account?

Sign-up

About Sunlight

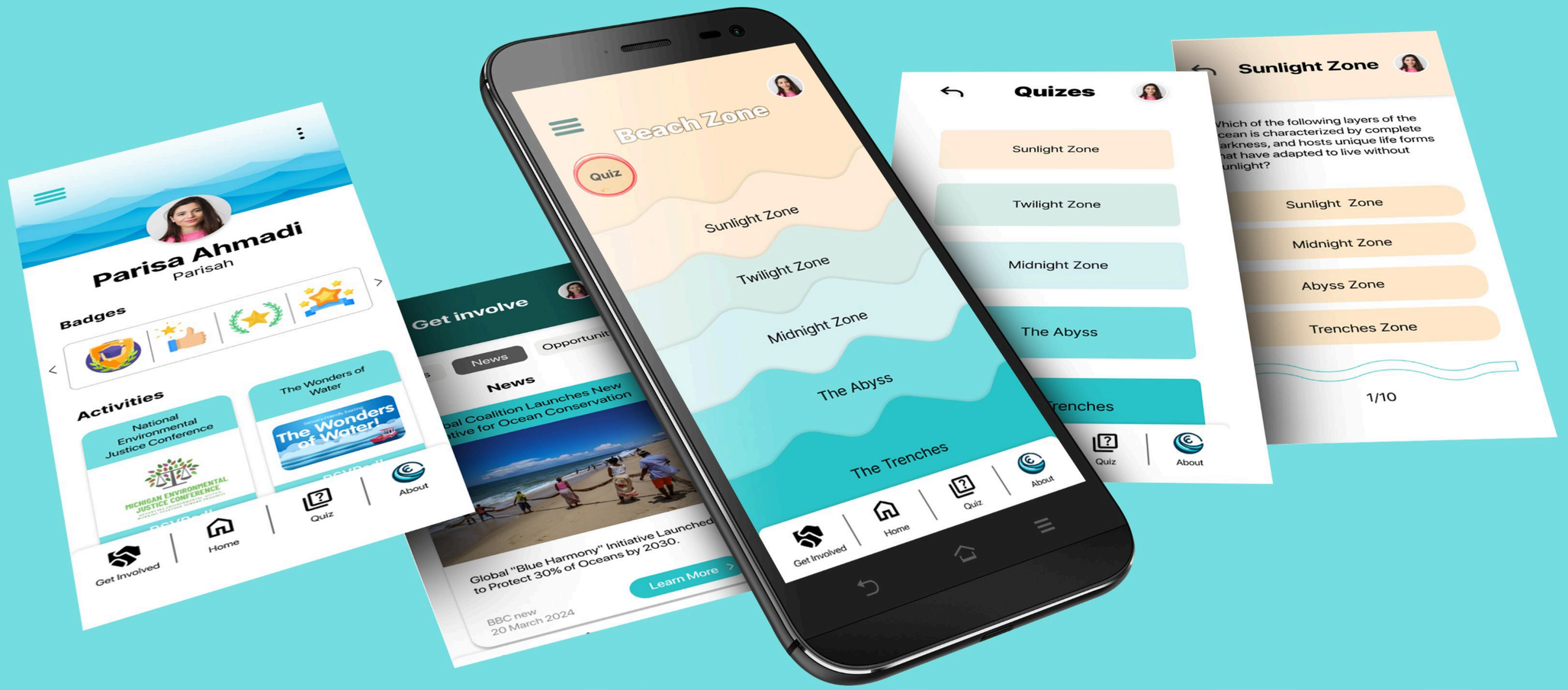
1. Photosynthesis Activity: The presence of light enables photosynthetic activity, which is crucial for the production of oxygen and the absorption of carbon dioxide from the atmosphere.
2. Temperature: The sunlight zone is generally warmer compared to deeper ocean layers due to direct solar heating. Temperature can vary significantly based on geographic location, time of day, and season.

About Sunlight

4. Human Interaction: This zone is the most impacted by human activities due to its accessibility. It is the primary area for marine transportation, recreational activities, and surface fishing practices. It also faces environmental challenges such as pollution from plastic and chemicals, and impacts from climate change like ocean acidification and warming.

About Us

Welcome to EcoWave, your dedicated guide to the underwater world. Our app is designed to immerse you in the vast diversity of marine species and their habitats, providing in-depth information that not only educates but also inspires. At EcoWave, we are committed to fostering a connection between our users and the ocean, encouraging active participation in conservation efforts and advocacy for marine biodiversity. Join us in our mission to protect and preserve the richness of marine life for future generations. Together, we can make a difference in sustaining the health of our planet's oceans.


Parisa Ahmadi
Parisah
Badges
Activities
National Environmental Justice Conference
The Wonders of Water
The Wonders of Water!
Get Involved
Home
Quiz
About
Get involve
News
Opportunit
News
Global "Blue Harmony" Initiative Launched to Protect 30% of Oceans by 2030.
Learn More
BBC new
20 March 2024
Beach Zone
Quiz
Sunlight Zone
Twilight Zone
Midnight Zone
The Abyss
The Trenches
Get Involved
Home
Quiz
About
Quizes
Sunlight Zone
Twilight Zone
Midnight Zone
The Abyss
Trenches
Quiz
About
Sunlight Zone
Which of the following layers of the ocean is characterized by complete darkness, and hosts unique life forms that have adapted to live without sunlight?
Sunlight Zone
Midnight Zone
Abyss Zone
Trenches Zone
1/10


Beach Zone
Quiz
Sunlight Zone
Twilight Zone
Midnight Zone
The Abyss
The Trenches
Get Involved
Home
Quiz
About


EcoWave



Usability Test

Test Tasks

Tasks in testing:

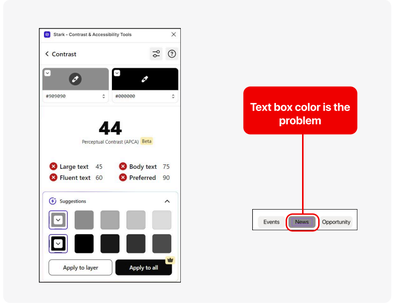
1. Account Setup
2. Explore the Sunlight Zone
3. Threats and Solutions
4. Discover Marine Life
5. Quiz Challenge
6. Find Events
7. Ocean News

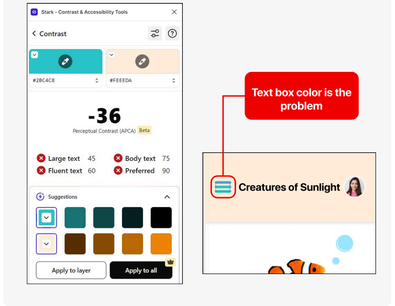
Task	Successful?	Note
Please Open the app and set up your accountby entering your info.		
Please go to the “Sunlight zone” and learn about this ocean level.		
Please Open the app and go to the “Sunlight zone” and learn about things threatening this level of ocean and learn tips on how to battle them.		
Please go to the “Sunlight zone” and learn about habitats and creatures living in this ocean level.		
Please go to the “Quiz” section and answer the questions to get a badge.		
Please go to the “Get Involved” section and find the information about and events going on.		
Please go to the “Get Involved” section and find news articles about Ocean and conservation.		

Accessibility test with Stark Plugin

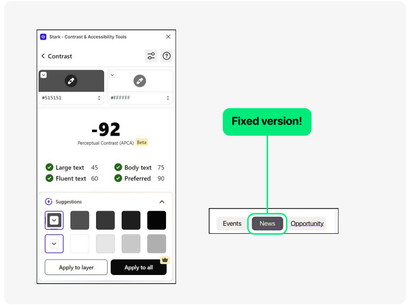
Using Stark Plugin to test the accessibility. Checking for color contrast, typography, touch target, etc.

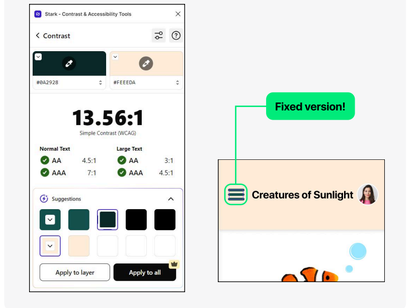
Before



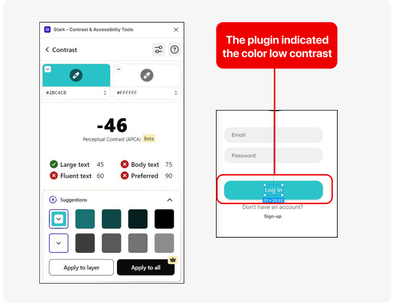


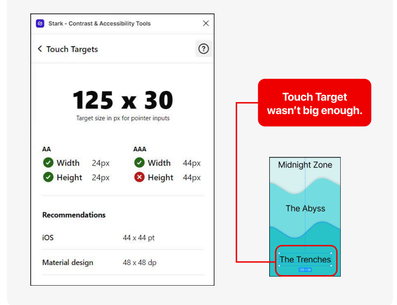
After



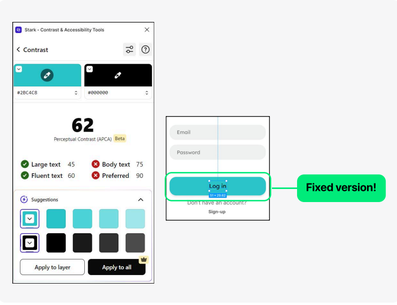


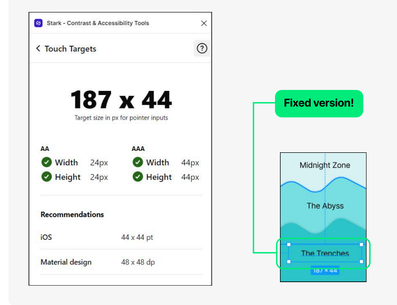
Before





After



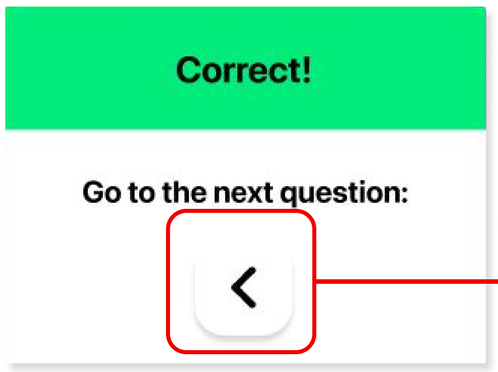


Usability Test results

Changes suggested by the users:

User suggested to “switch to a bottom navigation bar instead of having a hamburger menu for easier access”.





User suggested to “change the arrow to the right, since it is more common and more familiar”.

User suggested to “change the color of this botton to show the result of action”.





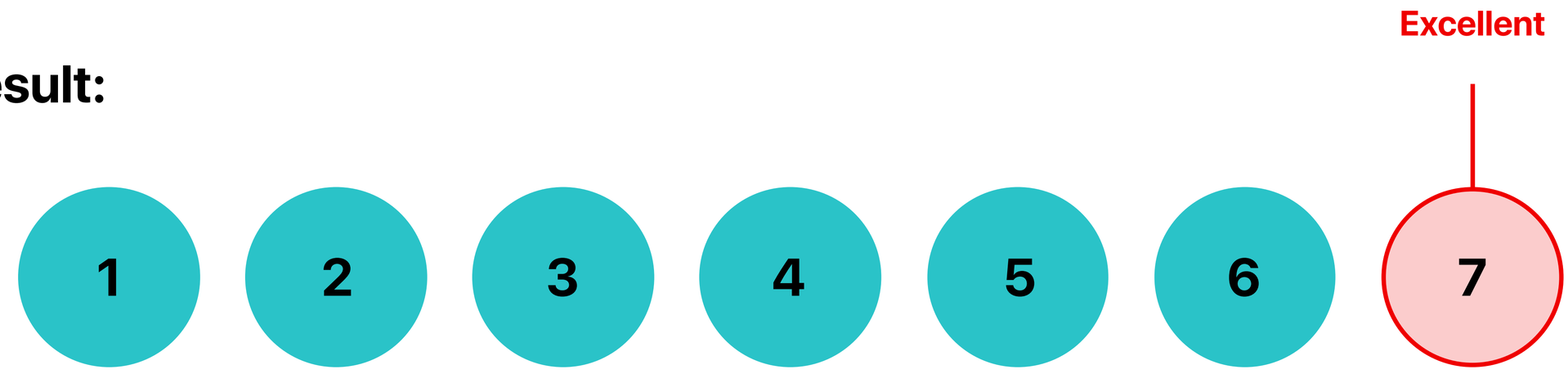
User suggested to “have back button in pages for easier navigation”.

Test data

SUS test result:

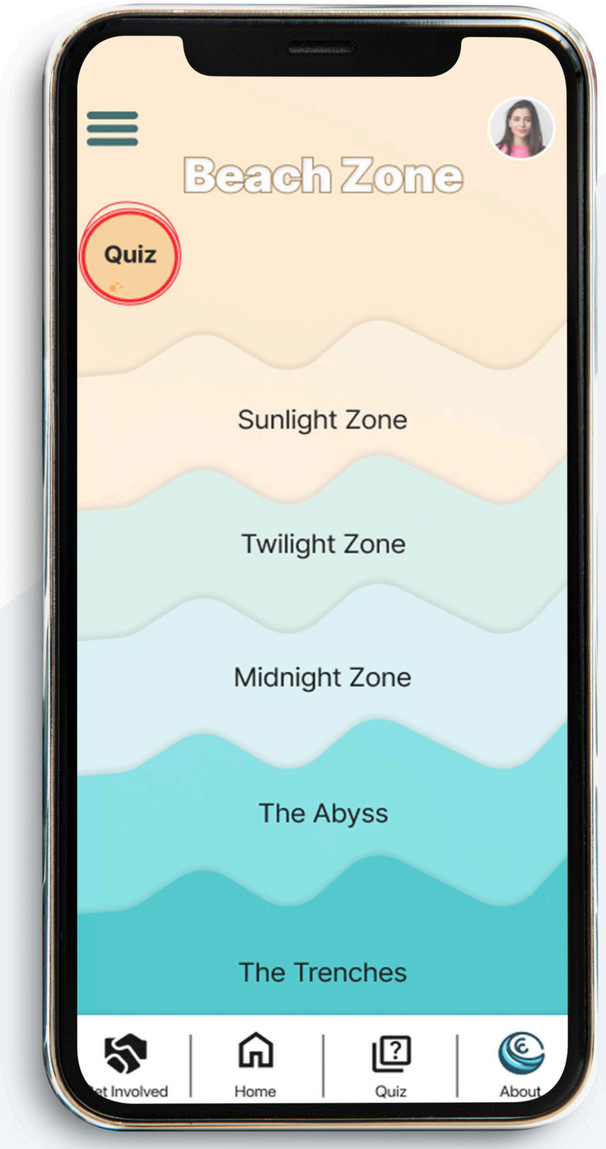
	A	B	C	D	E	F	G	H	I	J	K	L
1	SUS Calculation											
2											Average:	99.16667
3	Participan	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Question 7	Question 8	Question 9	Question 1	SUS Score
4	p1	5	1	5	1	5	1	5	1	5	1	100
5	p2	5	1	4	1	5	1	5	1	5	1	97.5
6	p3	5	1	5	1	5	1	5	1	5	1	100

SEQ result:



Due to a limited number of participants, the result shows a high number which by increasing the participant numbers it will be more accurate

Demo Link


Beach Zone
Quiz
Sunlight Zone
Twilight Zone
Midnight Zone
The Abyss
The Trenches
Home
Quiz
About


Thank You!