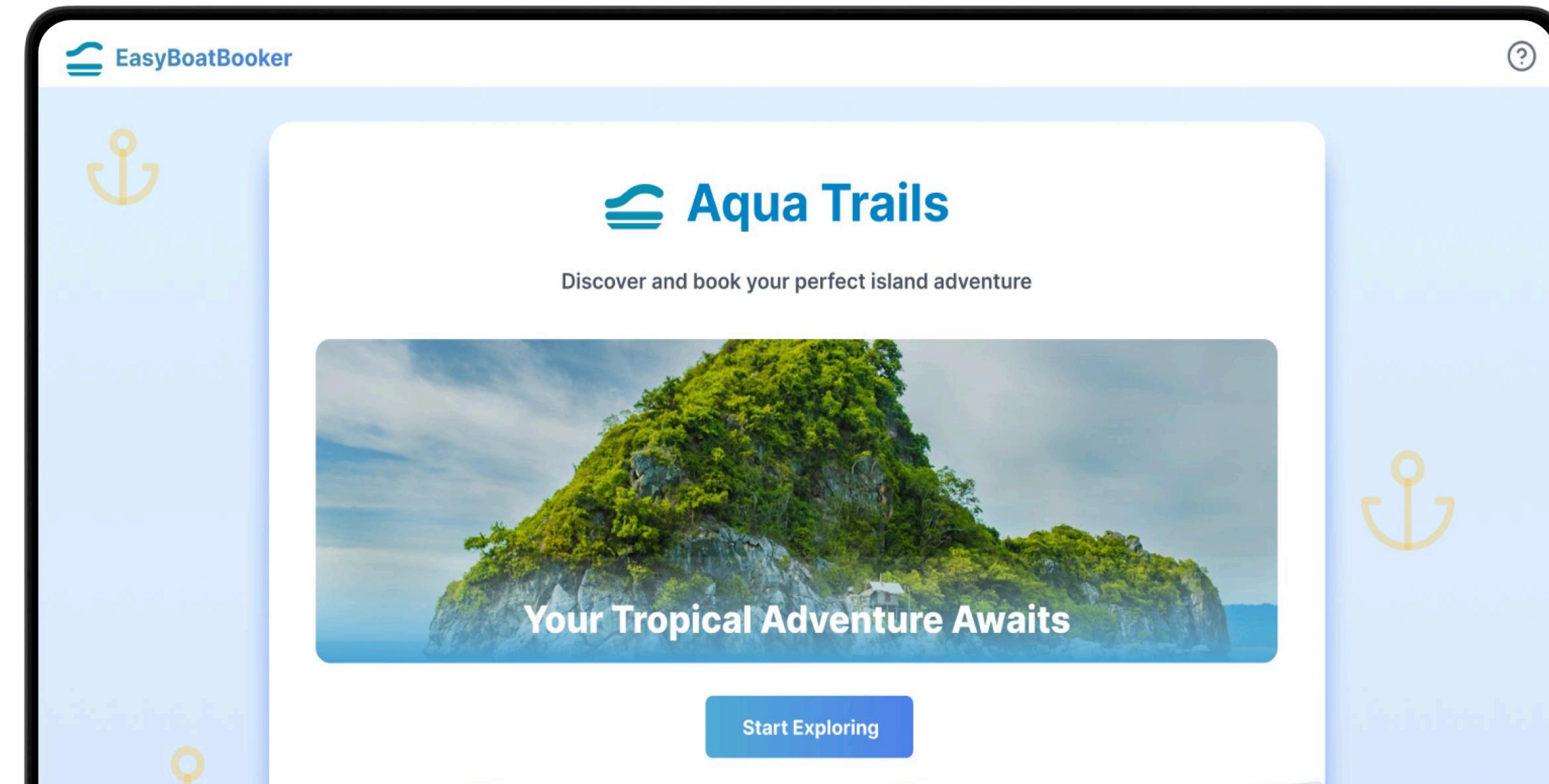
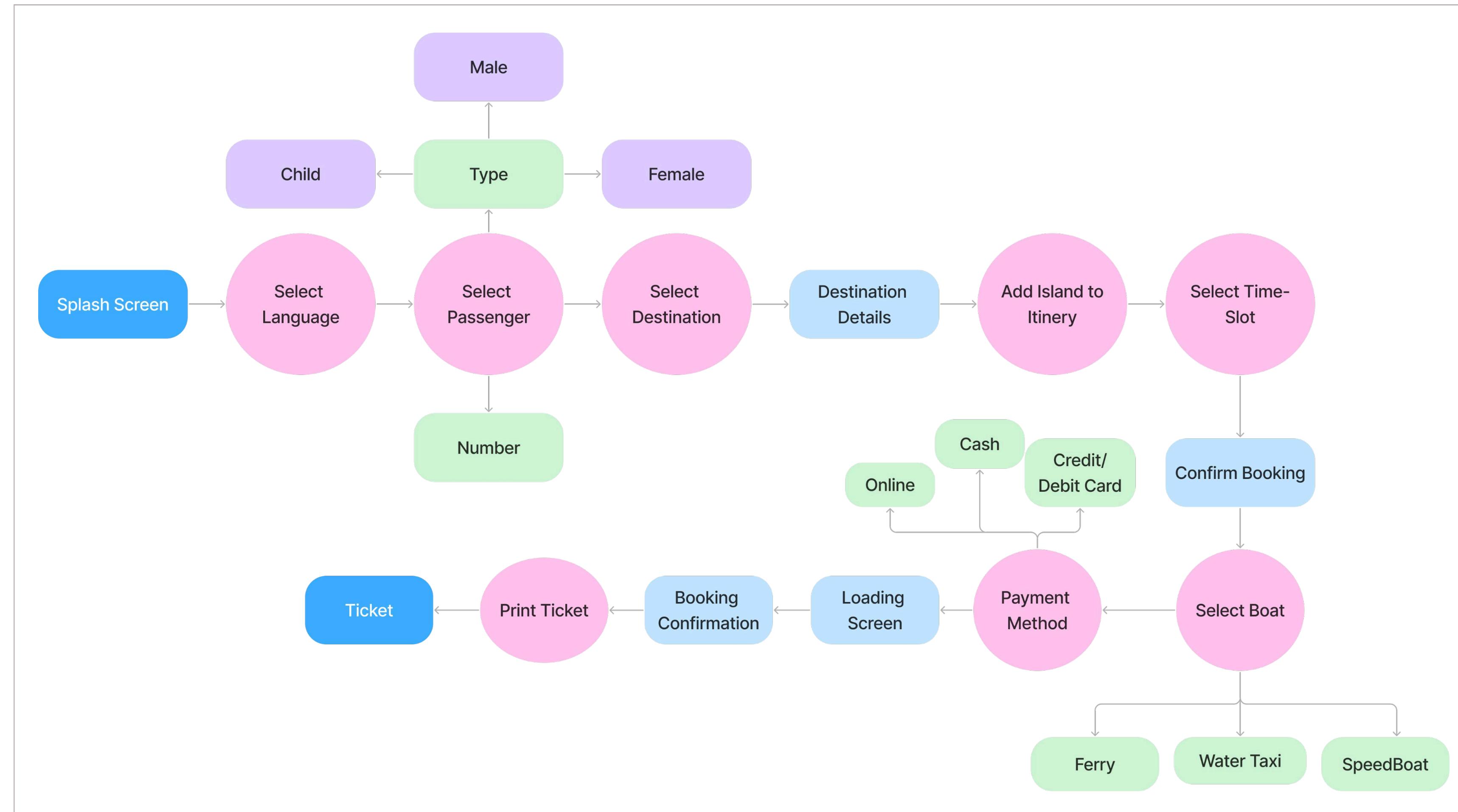


Cognitive Ergonomics



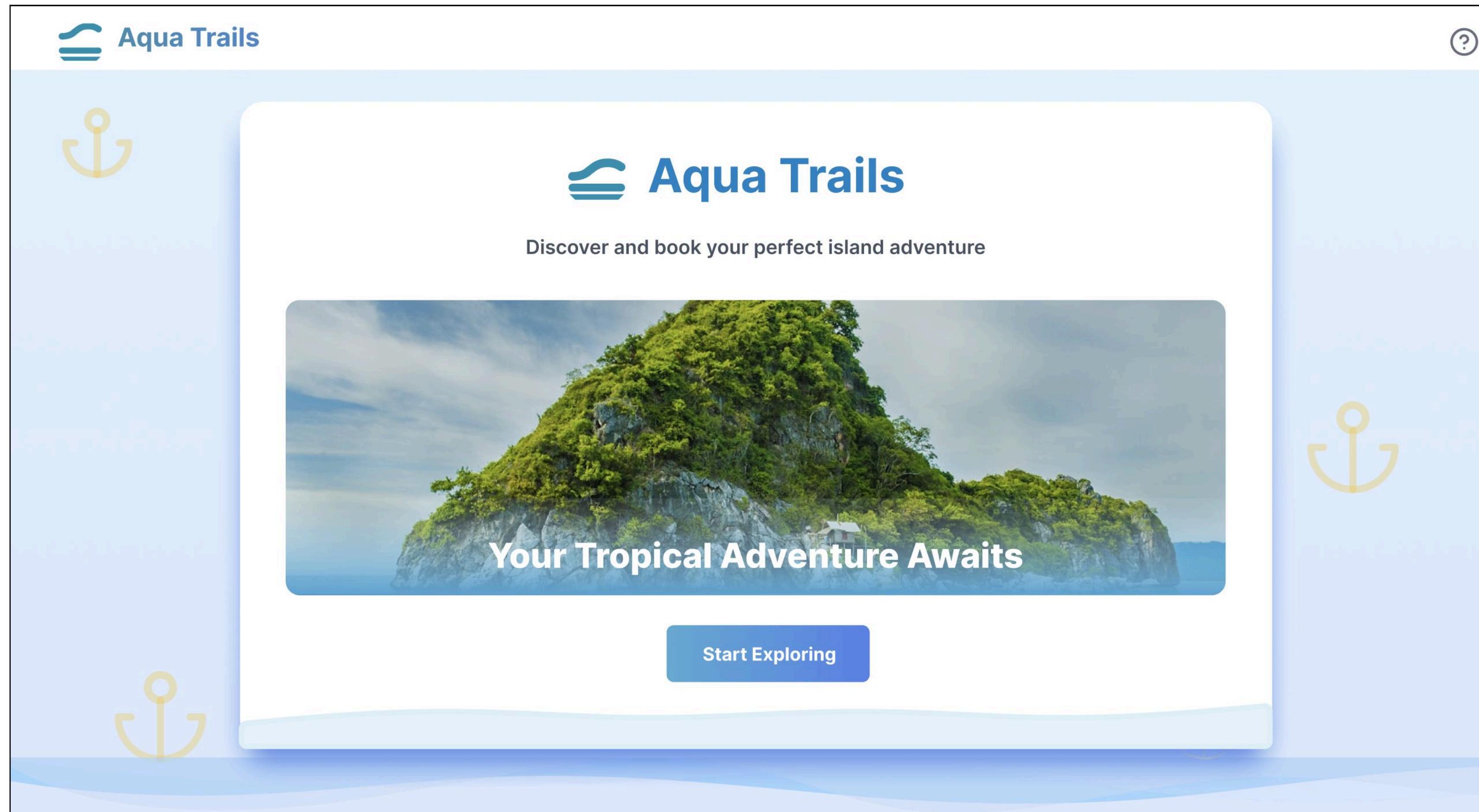
Kiosk User Flow

This is the user-flow for the task of booking a ticket on AquaTrails.

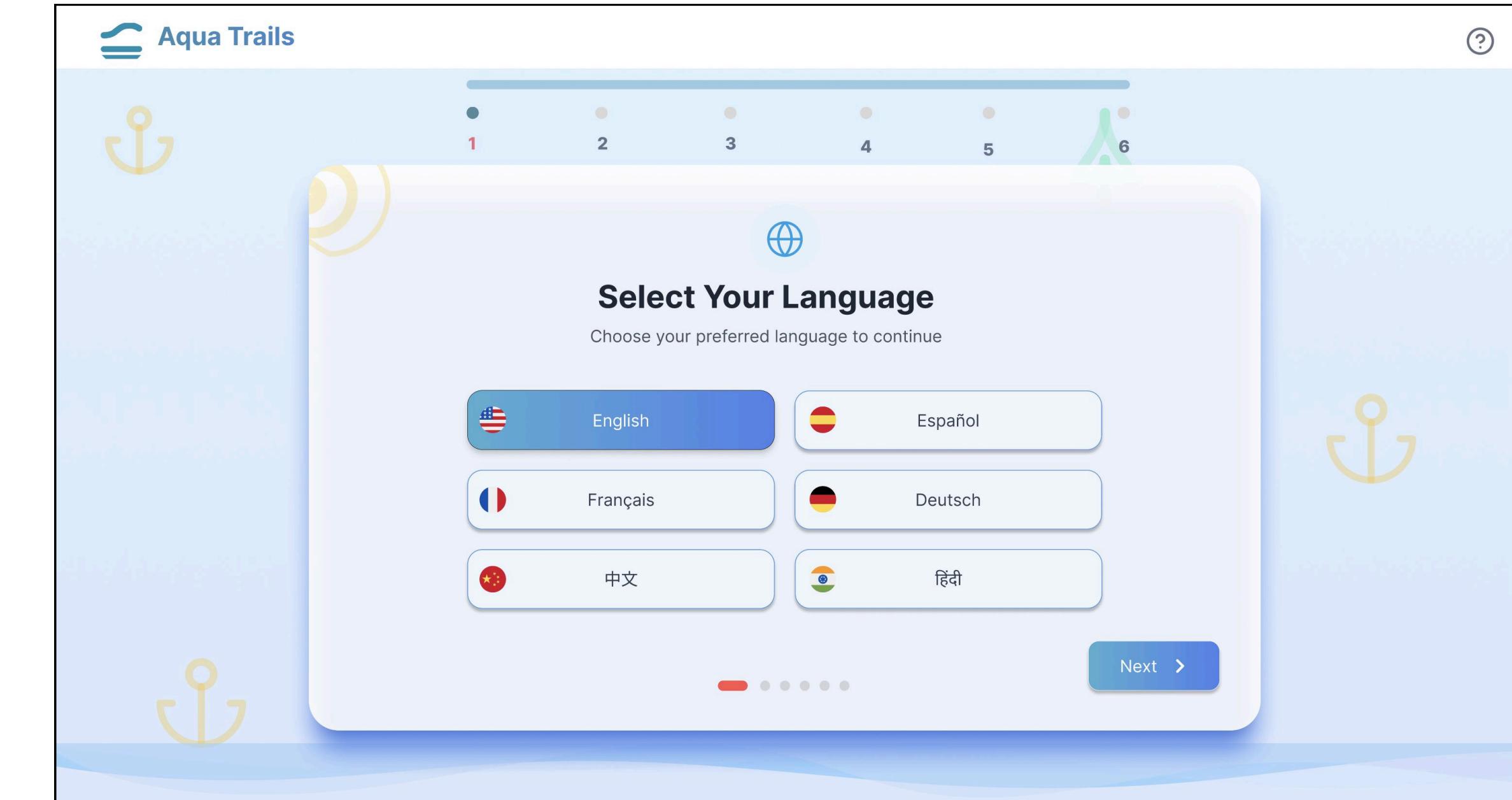
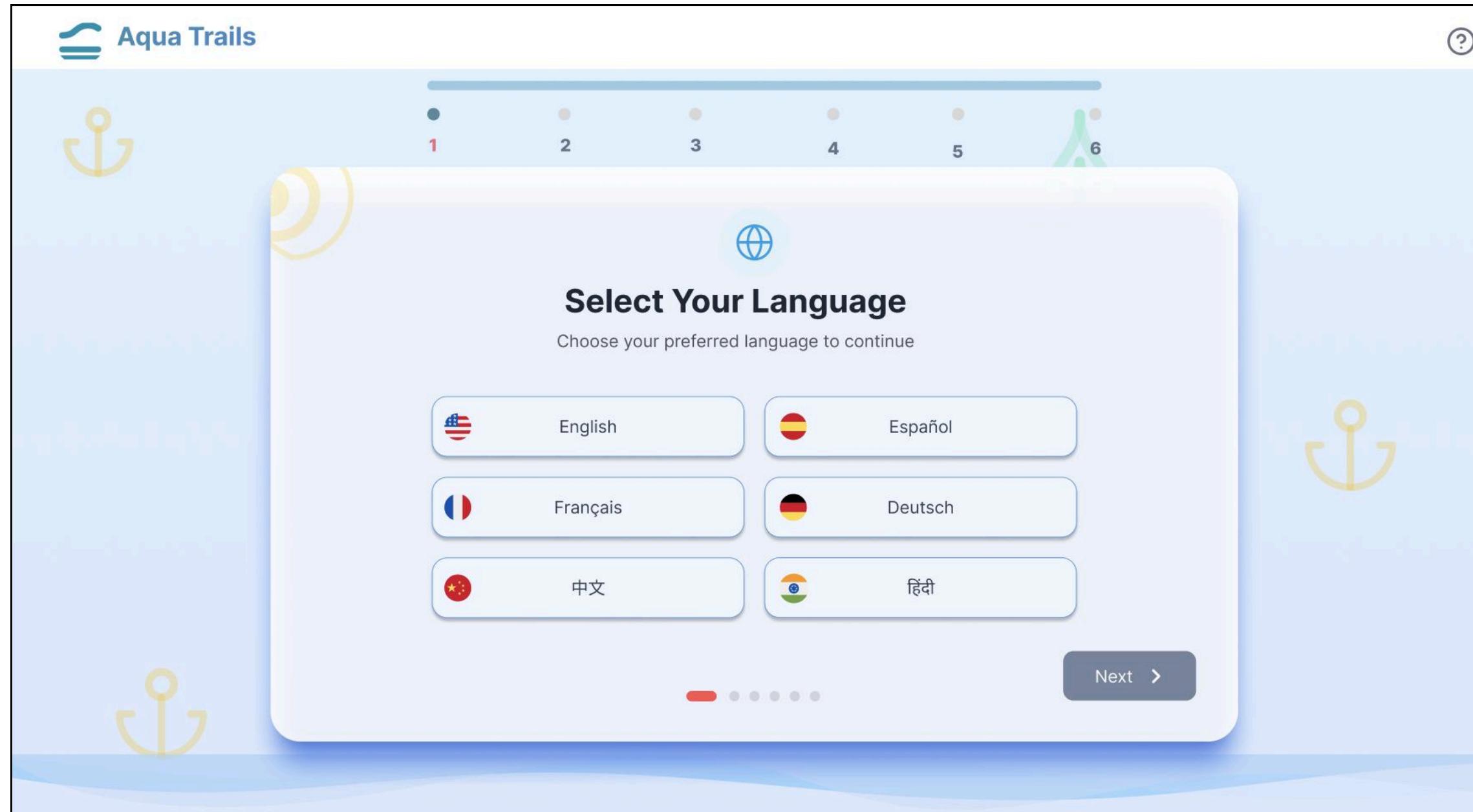


Screens

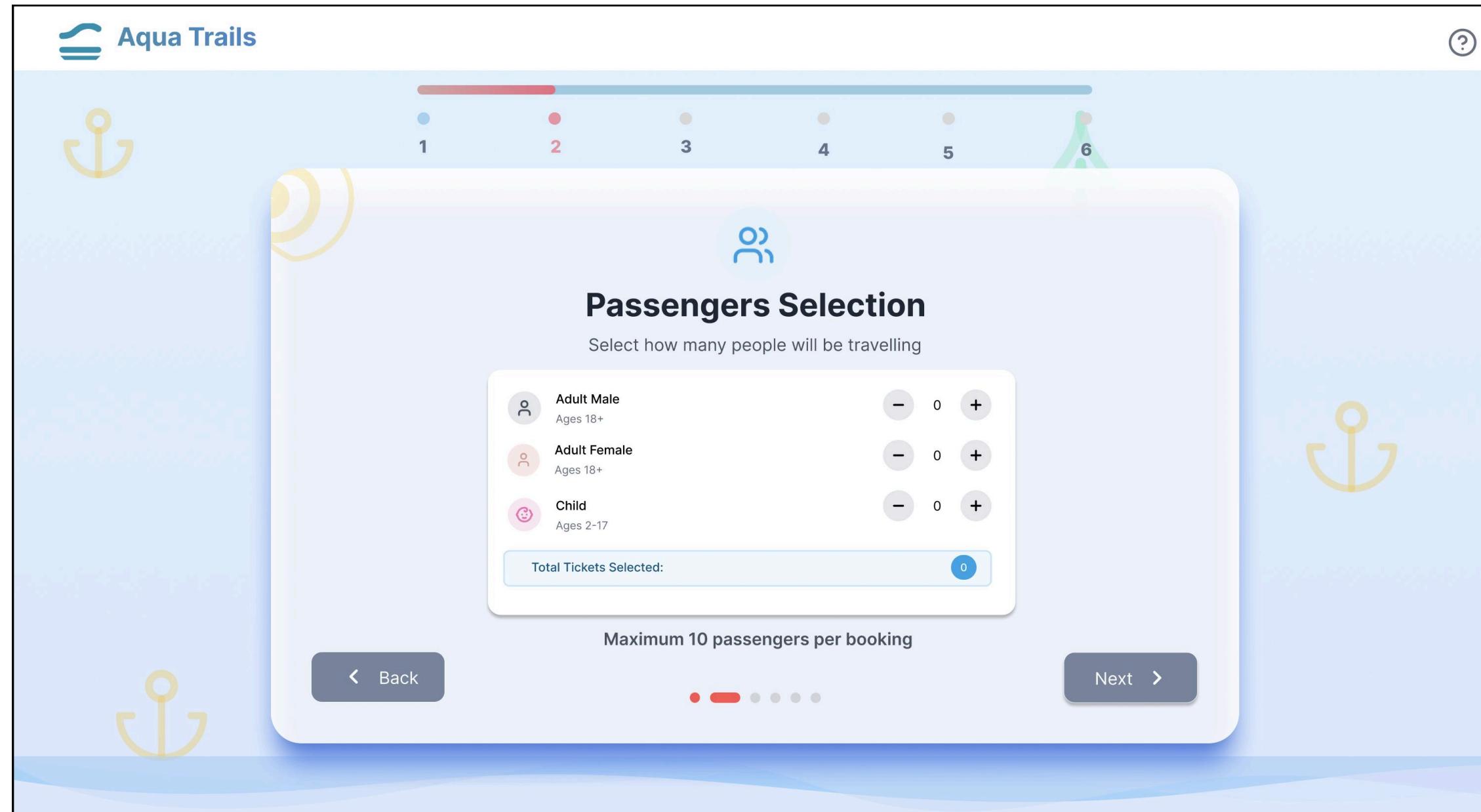
1. Home Page



2. Select Language



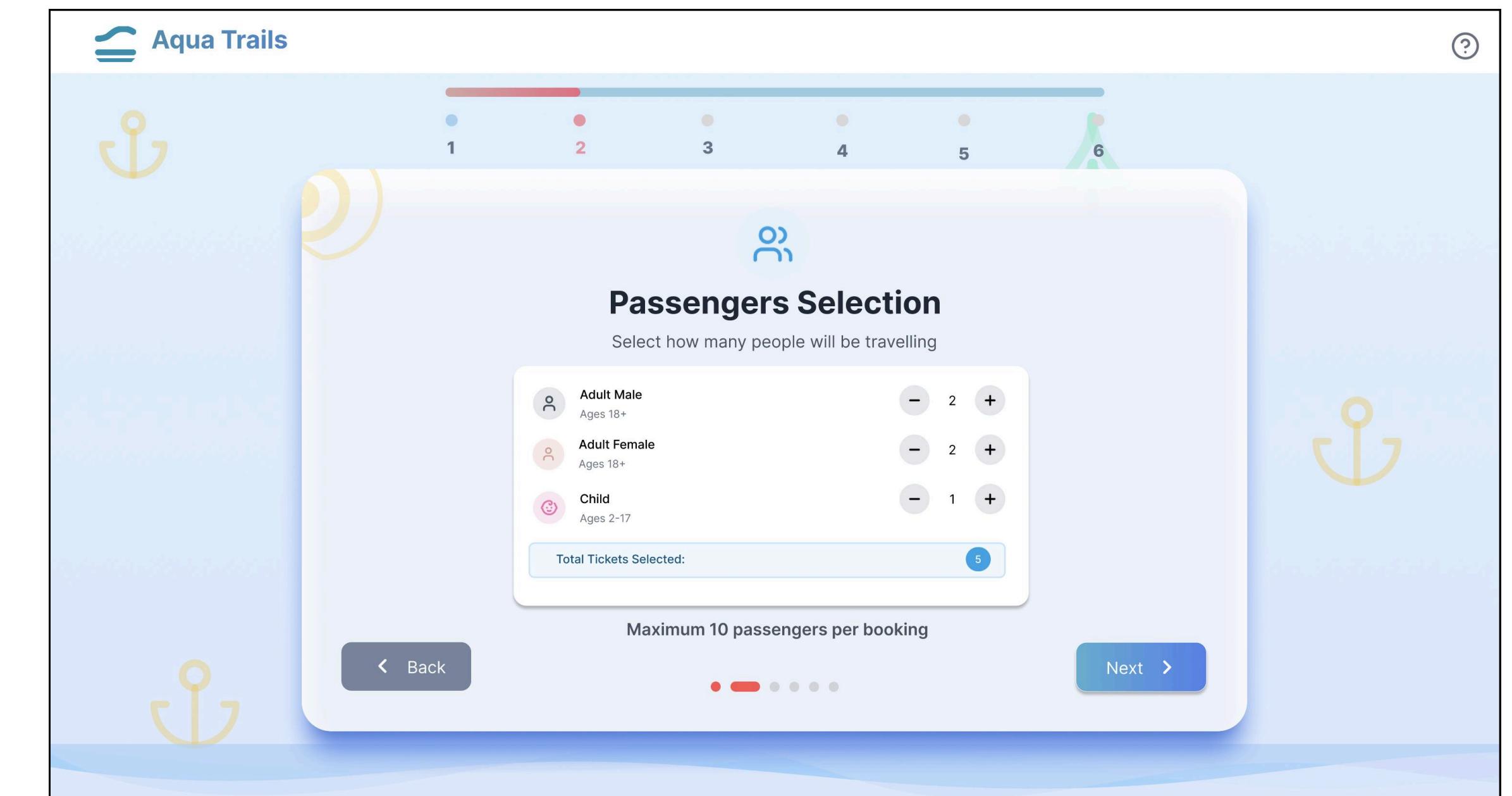
3. Select Passengers



A screenshot of the 'Passenger Selection' step in the 'Aqua Trails' booking process. The title 'Passenger Selection' is at the top, followed by the instruction 'Select how many people will be travelling'. Below this are three categories with minus, zero, and plus buttons for adjusting the count:

- Adult Male (Ages 18+)
- Adult Female (Ages 18+)
- Child (Ages 2-17)

The 'Total Tickets Selected:' field shows 0. A note below states 'Maximum 10 passengers per booking'. At the bottom are 'Back' and 'Next' buttons.



A screenshot of the 'Passenger Selection' step in the 'Aqua Trails' booking process, showing the state after selecting 5 passengers. The title 'Passenger Selection' is at the top, followed by the instruction 'Select how many people will be travelling'. Below this are three categories with minus, zero, and plus buttons for adjusting the count:

- Adult Male (Ages 18+)
- Adult Female (Ages 18+)
- Child (Ages 2-17)

The 'Total Tickets Selected:' field shows 5. A note below states 'Maximum 10 passengers per booking'. At the bottom are 'Back' and 'Next' buttons.

4. Select Island

The screenshot shows the 'Select Your Destination' screen of the Aqua Trails mobile application. At the top, there's a header with the 'Aqua Trails' logo and a progress bar with six steps, where step 3 is highlighted in red. Below the header, there's a title 'Select Your Destination' with a map icon. A subtitle says 'Choose where you'd like to go'. There are three destination cards:

- Seagull Shores**: A serene paradise where waves meet the whispers of the wind.
- Crab Cove**: A rocky retreat teeming with playful crabs and coastal charm.
- Amphibian Acres**: A lush island haven where frogs leap and nature thrives.

At the bottom left is a 'Back' button, and at the bottom right is a navigation bar with four dots, the third one being red.

5. Island Details Page Seagull Shores

The screenshot shows the 'Seagull Shores' Island Details page. At the top, there's a header with the 'Aqua Trails' logo and a progress bar with six steps, where step 3 is highlighted in red. The main section features a large image of seagulls flying over the ocean. Below the image, the destination name 'Seagull Shores' is displayed along with activity icons for Swimming, Snorkeling, Beachcombing, and Kayaking. To the right, there's a 'About Seagull Shores' section with a brief description and a 'Travel Time' section indicating 25-40 minutes by speedboat and 60-90 minutes by ferry. Further down, there are three sections: 'Select Time Slot' (with time slots from 9:00 AM to 6:00 PM), 'Selection Status' (showing 'Not in Itinerary' with a blue 'Add to Itinerary' button), and 'Selection Islands' (which says 'No islands selected yet' with 'Add Another Island' and 'Continue Booking' buttons). At the bottom left is a 'Back to Destination' button, and at the bottom right is a navigation bar with four dots, the third one being red.

4. Select Island

The image shows a mobile application interface for 'Aqua Trails'. At the top, there is a header with the 'Aqua Trails' logo and a help icon. Below the header is a horizontal navigation bar with six dots, where the third dot is red, indicating the current step. The main content area is titled 'Select Your Destination' with a subtitle 'Choose where you'd like to go'. There are three destination options displayed in cards:

- Seagull Shores**: A serene paradise where waves meet the whispers of the wind.
- Crab Cove**: A rocky retreat teeming with playful crabs and coastal charm.
- Amphibian Acres**: A lush island haven where frogs leap and nature thrives.

At the bottom left is a 'Back' button, and at the bottom center is a navigation bar with five dots, where the fourth dot is red.

5. Island Details Page

Seagull Shores

The screenshot shows the details for Seagull Shores. At the top is a large image of seagulls flying over the ocean. Below it is a summary section with the title "Seagull Shores" and icons for Swimming, Snorkeling, and Beachcombing. To the right is the "About Seagull Shores" section, which describes it as a pristine sandy paradise with crystal clear waters and abundant wildlife, perfect for swimming, snorkeling, and relaxing on the beach. It lists activities like Swimming, Beachcombing, Sunbathing, Snorkeling, and Kayaking. Below this is the "Travel Time" section, stating 25-40 minutes by speedboat and 60-90 minutes by ferry. At the bottom are buttons for "Select Time Slot" (with options for 9:00 AM, 12:00 PM, 3:00 PM, 6:00 PM), "Selection Status" (indicating "Added to Itinerary" with a green checkmark), "Selection Islands" (listing "Seagull Shores" with a green checkmark), and "Continue Booking". A "Back to Destination" button is at the very bottom.

Book Another Island

The screenshot shows the "Select Your Destination" page. At the top is a progress bar with steps 1 through 6, where step 3 is highlighted in red. Below it is a title "Select Your Destination" with a map icon. The page says "Choose where you'd like to go". It features three destination cards: "Seagull Shores" (selected, highlighted with a blue border), "Crab Cove", and "Amphibian Acres". Each card has a small image, the destination name, and a brief description. A "Back" button is at the bottom left.

5. Island Details Page

Crab Crove

Aqua Trails

Crab Cove

Tide Pool Exploration Rock Climbing Photography

About Crab Cove

A rocky coastal haven with tide pools full of fascinating sea creatures. Great for nature walks, photography, and exploring marine life.

Activities

- Tide Pool Exploration
- Photography
- Coastal Hiking
- Rock Climbing
- Marine Life Observation

Travel Time

25-40 minutes by speedboat
60-90 minutes by ferry

Select Time Slot

9:00 AM 12:00 PM
3:00 PM 6:00 PM

Selection Status

Not in Itinerary

Add to Itinerary Continue Booking

Back to Destination

Aqua Trails

Crab Cove

Tide Pool Exploration Rock Climbing Photography

About Crab Cove

A rocky coastal haven with tide pools full of fascinating sea creatures. Great for nature walks, photography, and exploring marine life.

Activities

- Tide Pool Exploration
- Photography
- Coastal Hiking
- Rock Climbing
- Marine Life Observation

Travel Time

25-40 minutes by speedboat
60-90 minutes by ferry

Select Time Slot

9:00 AM 12:00 PM
3:00 PM 6:00 PM

Selection Status

Added to Itinerary

Remove from Itinerary

Add Another Island Continue Booking

Back to Destination

5. Island Details Page

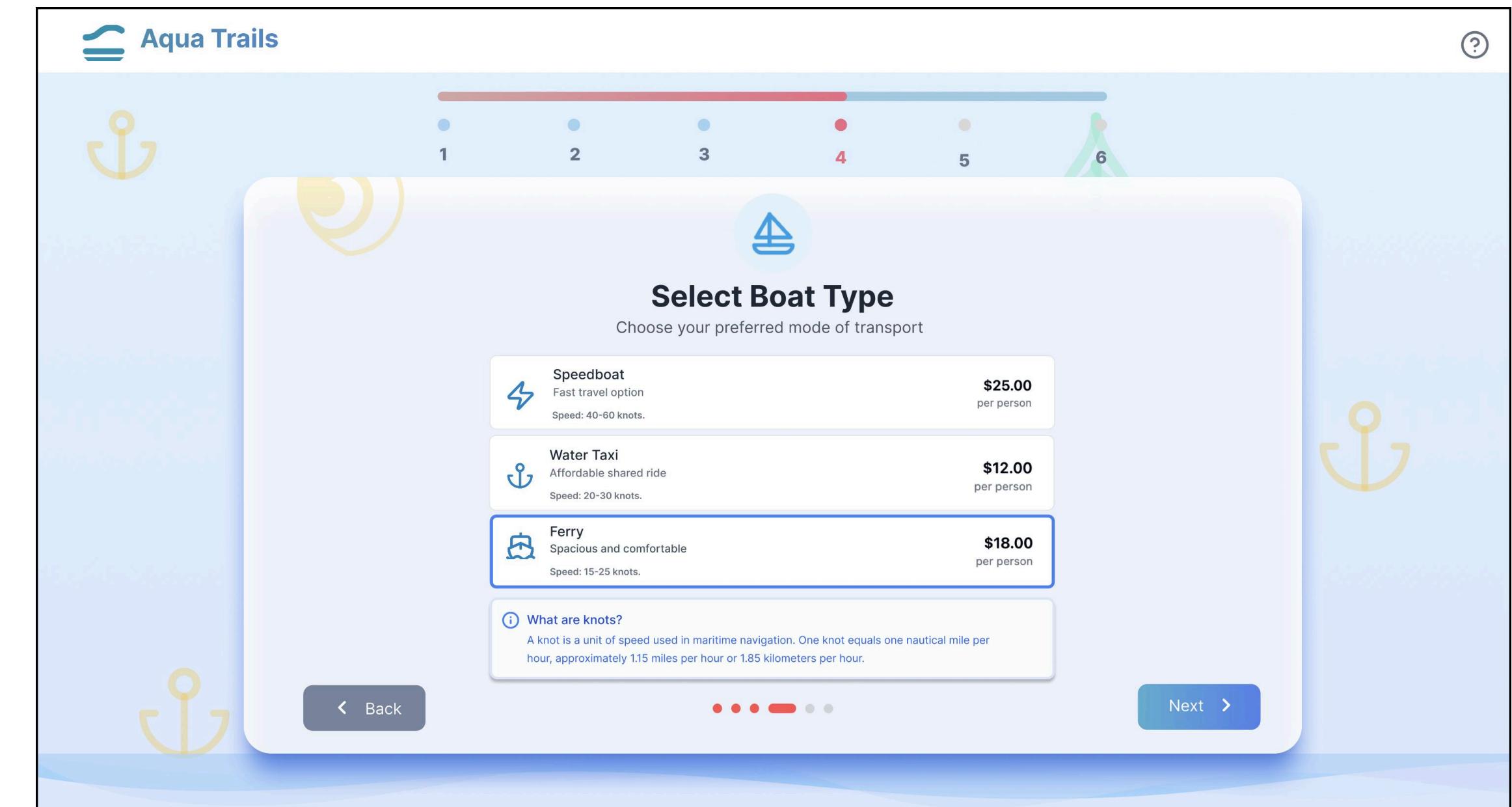
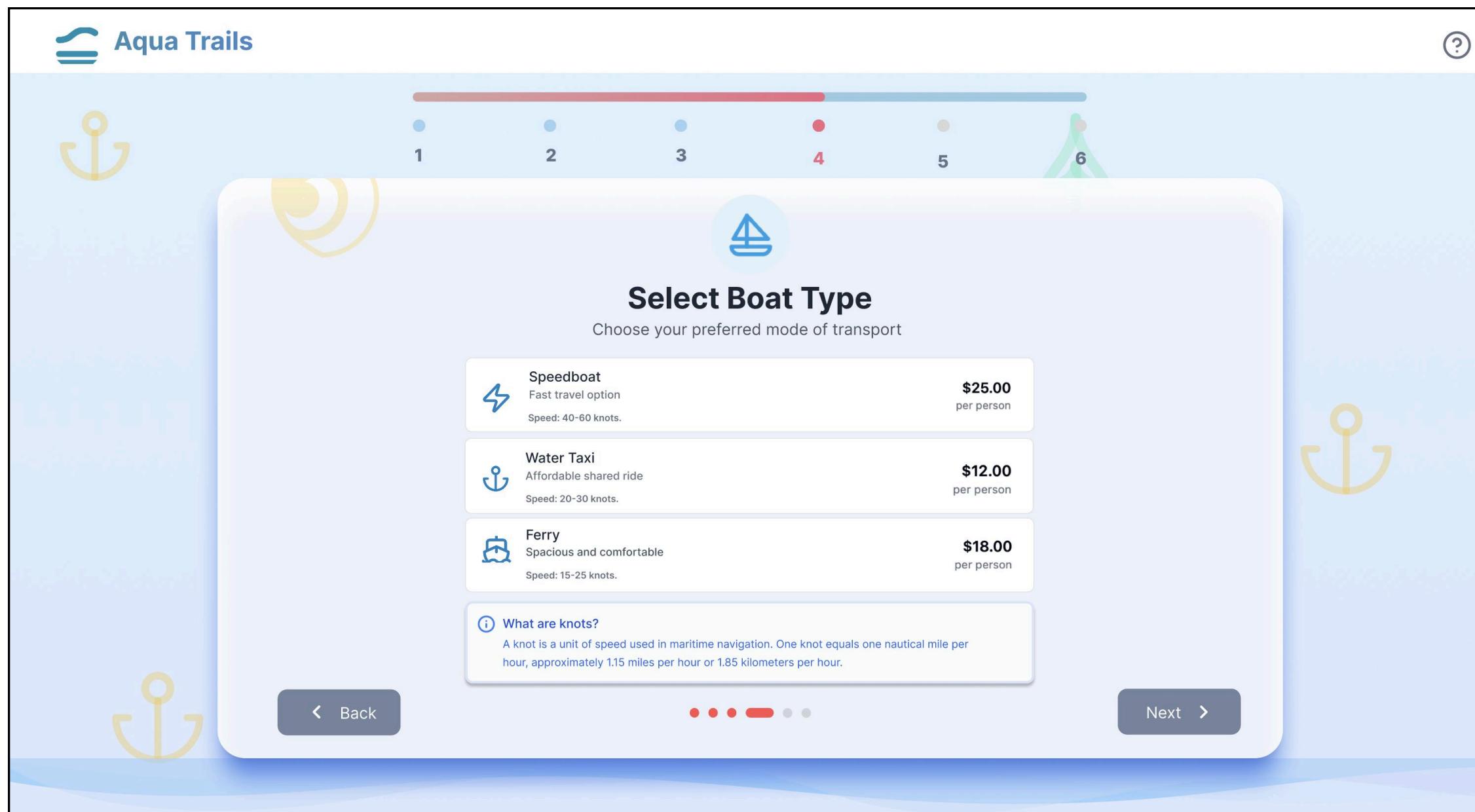
Crab Crove

The screenshot shows the 'Amphibian Acres' island details page. At the top, there's a large image of a lush tropical island with a frog on a rock. Below the image, the title 'Amphibian Acres' is displayed, followed by a subtitle 'Waterfall Exploration • Birdwatching • Trekking'. To the right of the title, there's a section titled 'About Amphibian Acres' which describes it as a lush tropical wonderland. It lists activities like Jungle Trekking, Waterfall Swimming, Wildlife Photography, Birdwatching, and Botanical Tours. Below this, travel time information is provided: 25-40 minutes by speedboat and 60-90 minutes by ferry. On the left side, there's a 'Select Time Slot' section with buttons for 9:00 AM, 12:00 PM, 3:00 PM, and 6:00 PM. Next to it is a 'Selection Status' section showing 'Not in Itinerary' with a 'Add to Itinerary' button. Below these are buttons for 'Add Another Island' and 'Continue Booking'. A navigation bar at the bottom includes a 'Back to Destination' button.

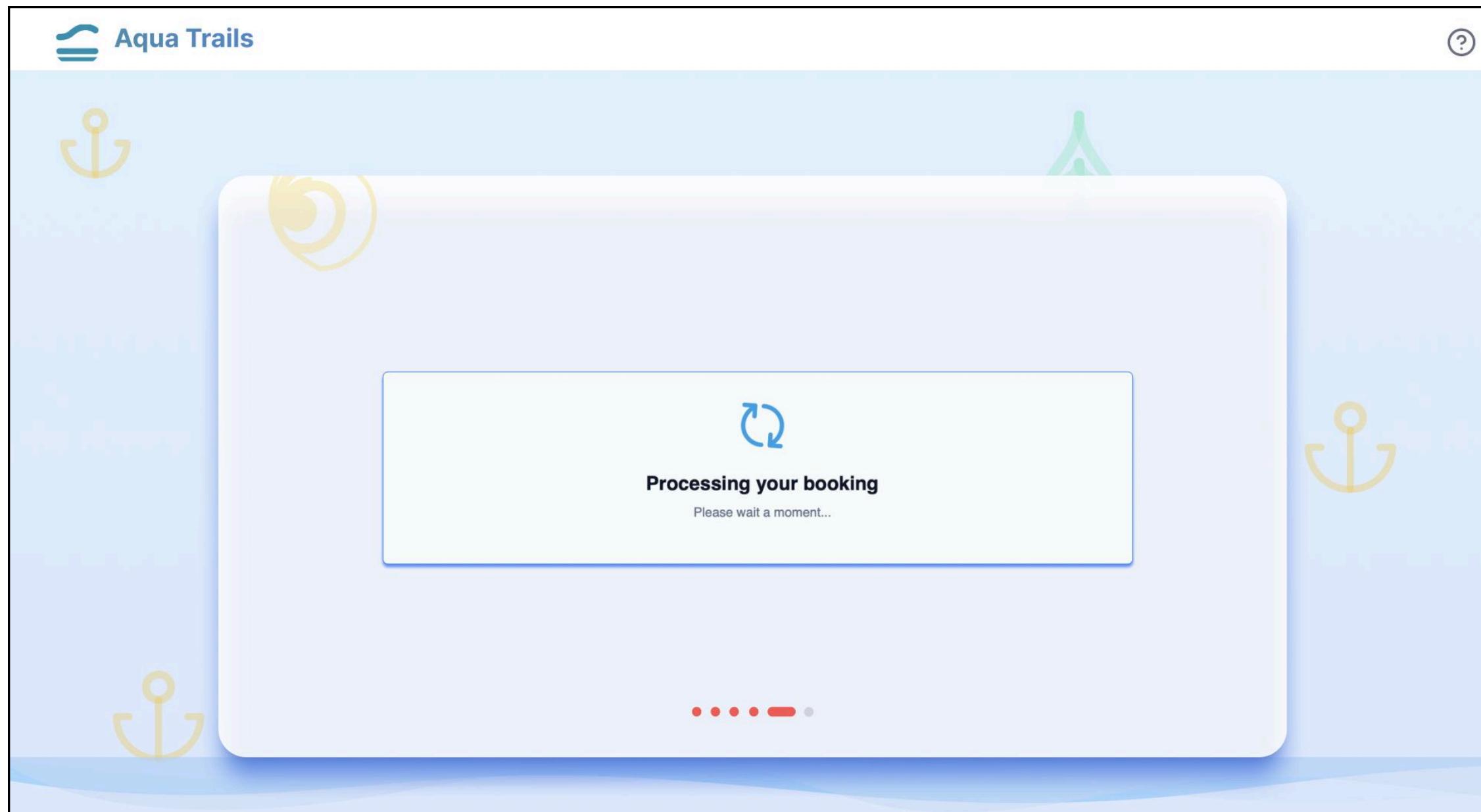
This screenshot shows the same island details page for 'Amphibian Acres' after the user has added it to their itinerary. The 'Selection Status' section now shows a green checkmark and the text 'Added to Itinerary'. A new button labeled 'Remove from Itinerary' has appeared next to the status. The rest of the page content remains the same, including the island image, title, subtitle, activities, travel time, and booking options.

6. Select Boat Type

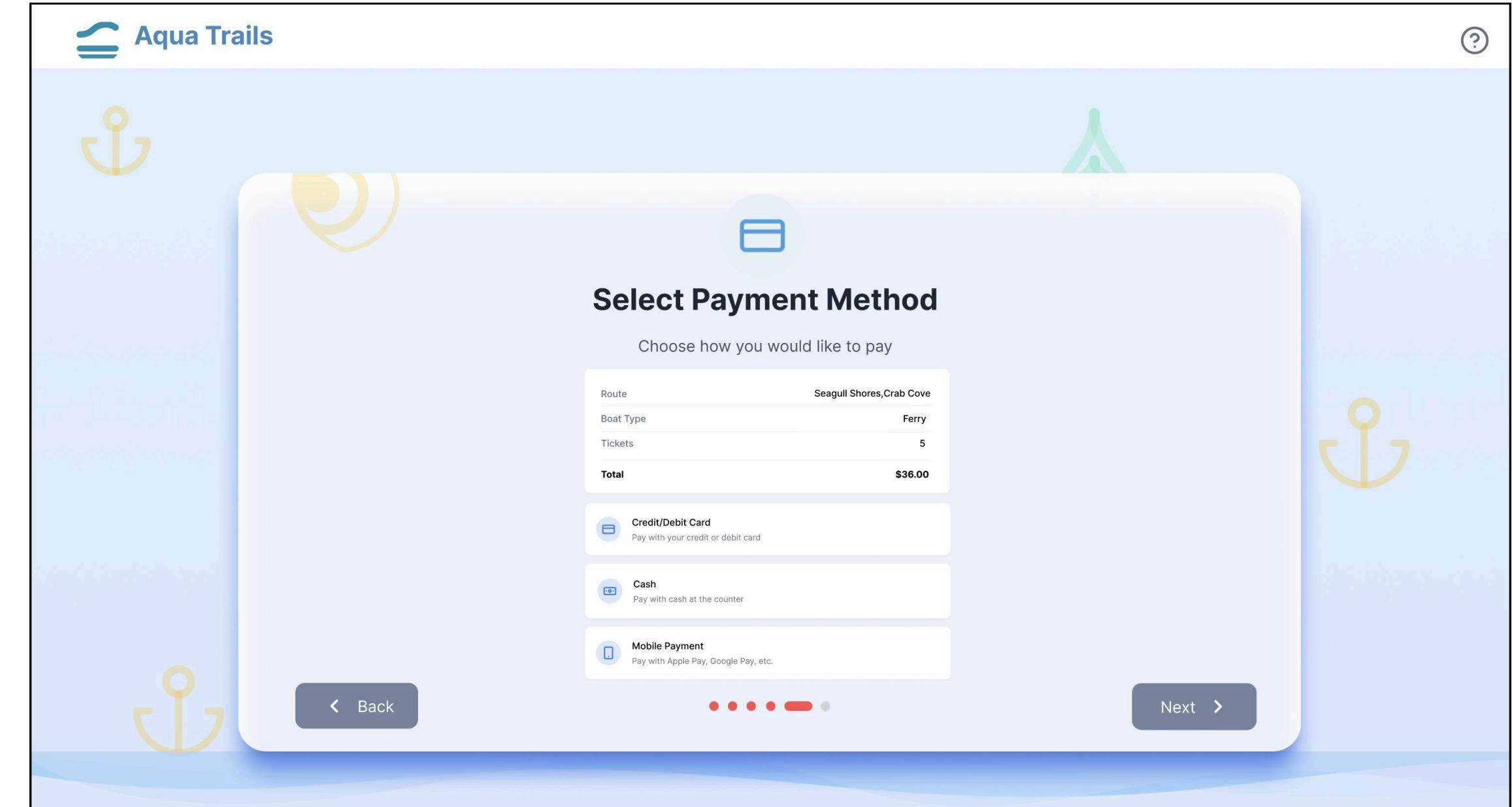
Parameters are speed and cost



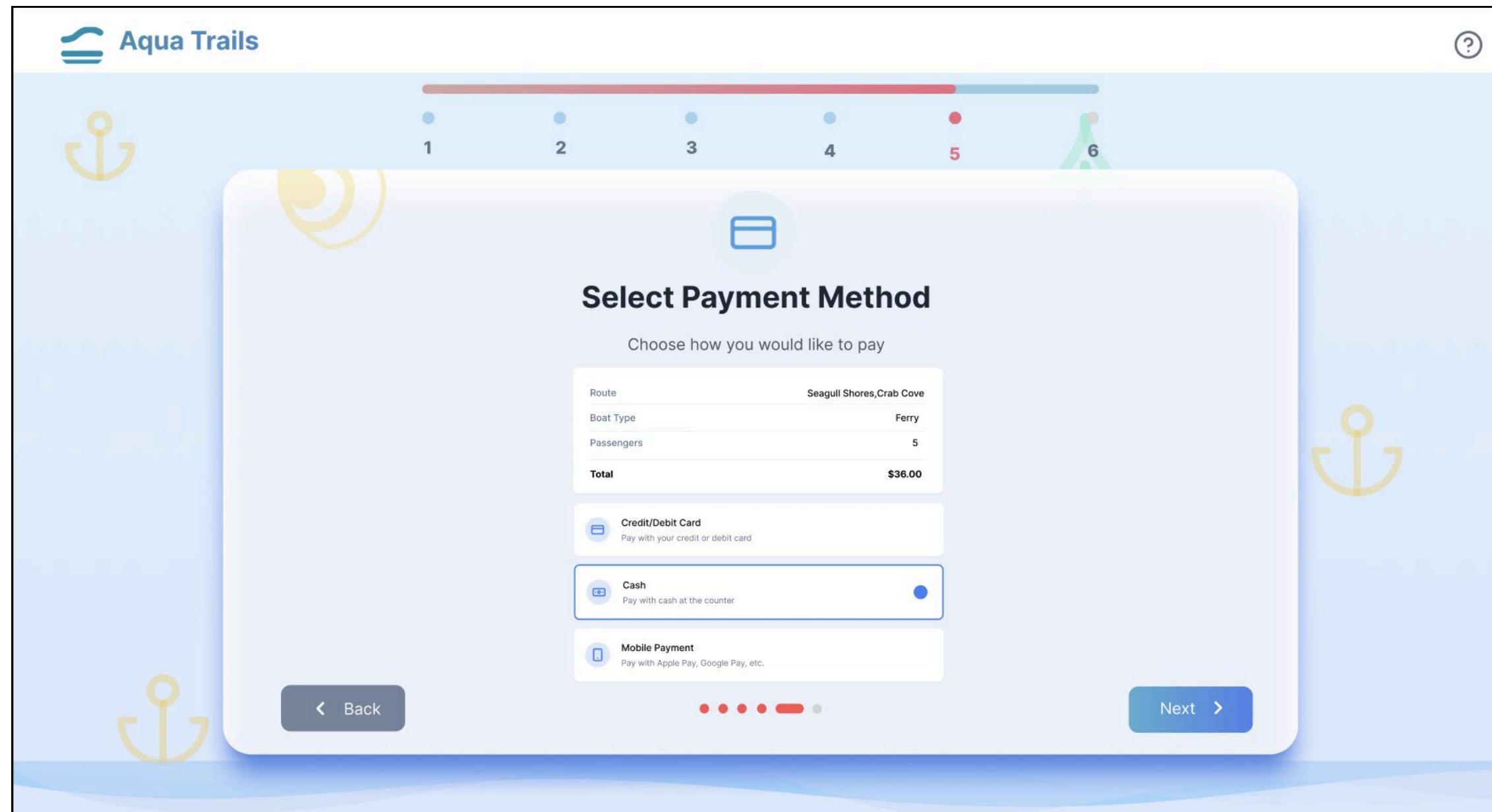
7. Loading Screen



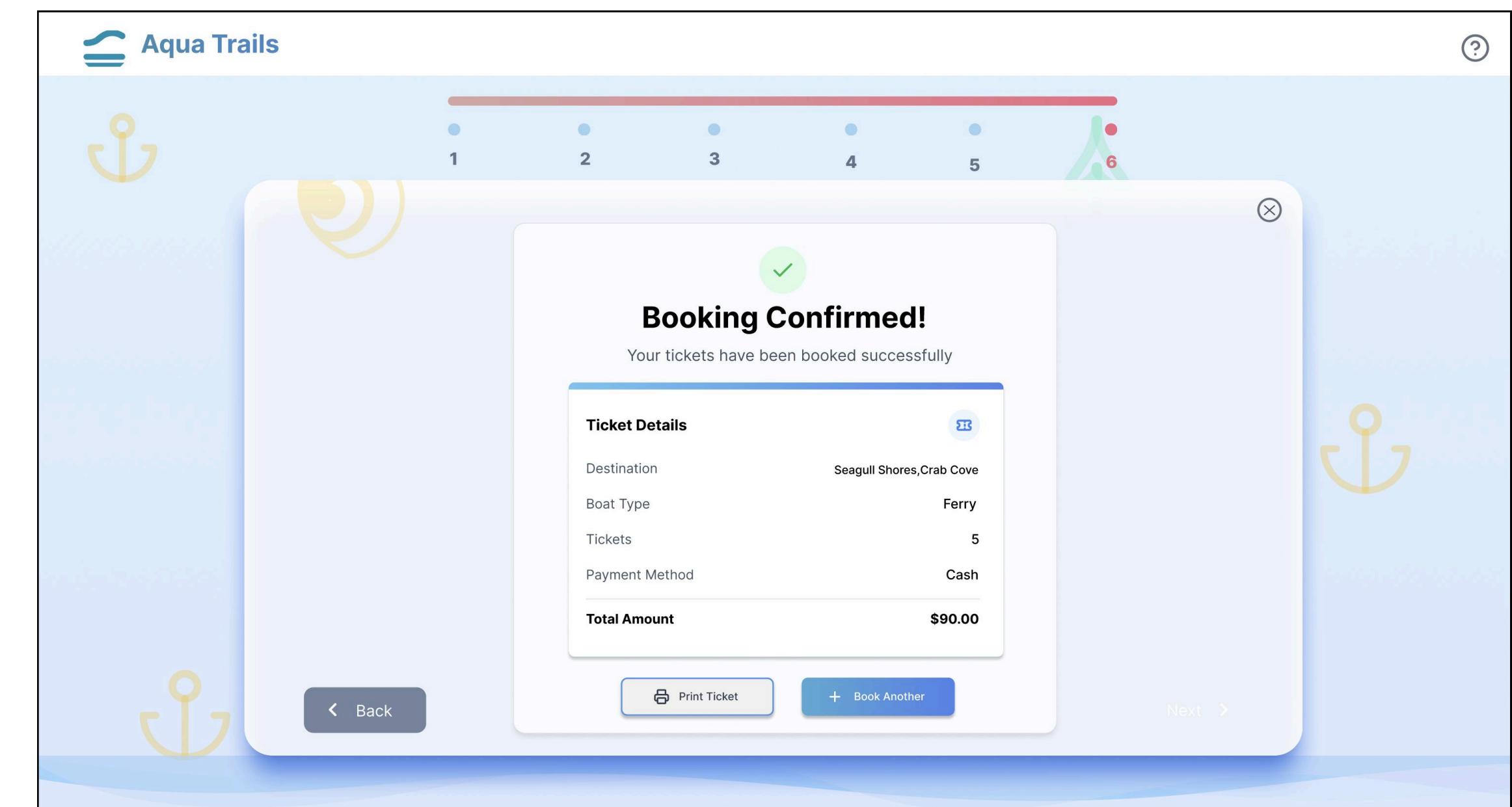
8. Select Payment Method



8. Select Payment Method



9. Booking Confirmed



Cognitive Walkthrough

Here we explain how we have achieved the given criterias for the walkthrough

1. Select Language

- Clear indicators for language change.
- Visible dropdowns or buttons with language flags.
- Labels clearly indicating action.
- Immediate feedback on selection.

2. Add Number of Passengers

- Clear form fields with increment/decrement icons.
- Descriptive terms like “Add Passengers.”
- Summary or confirmation after selection.

3. Choose the Route

- Visual cues like for selection.
- Visual confirmation of selected route.

4. Select Mode

- Clear descriptions of available options.
- Well-labeled mode options with icons.
- Direct labels for each mode.
- Updated travel time or cost post-selection.

5. Payment Method

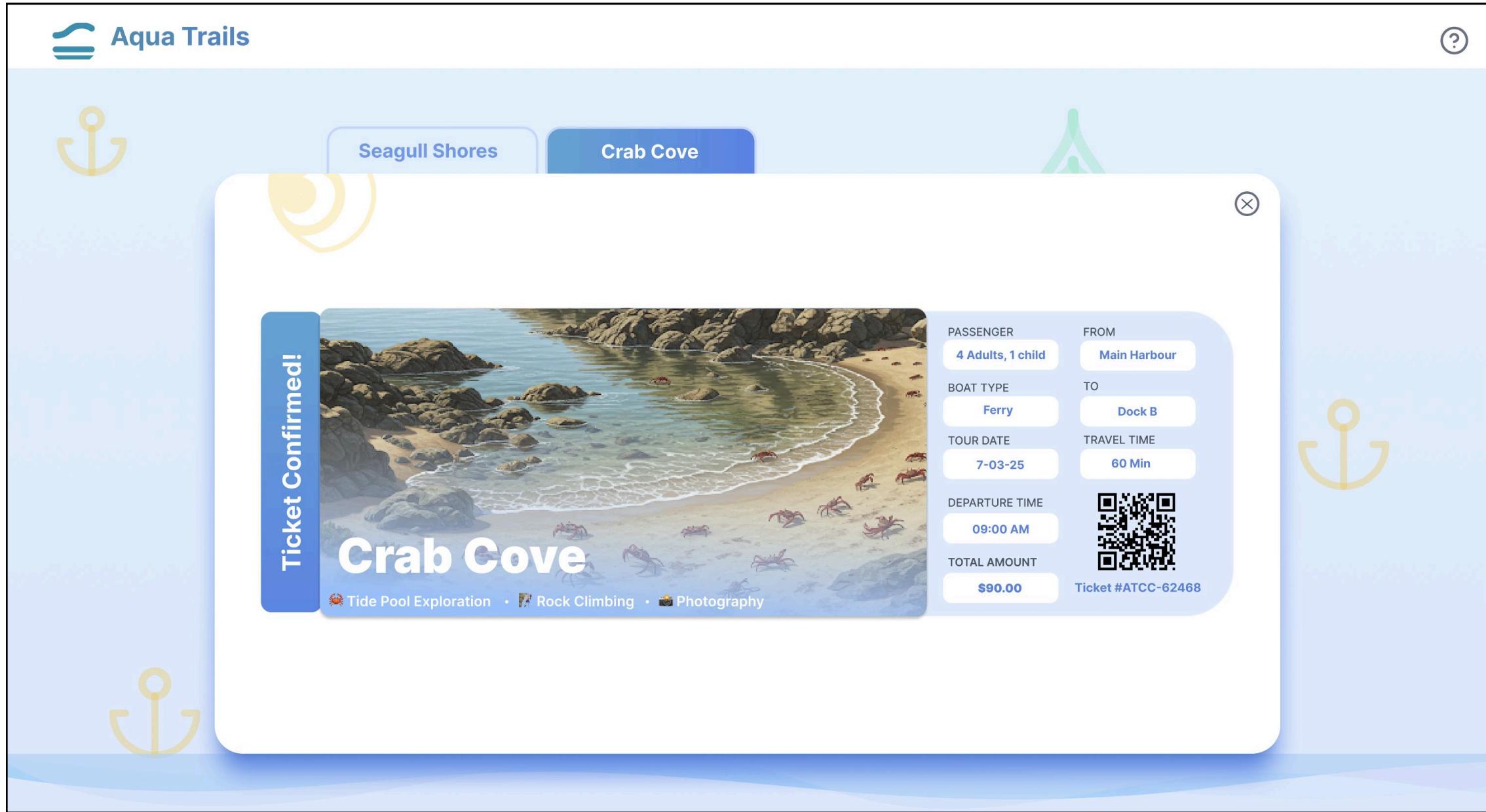
- Clear prompts for securing bookings.
- Recognizable payment icons and secure indicators.
- Direct association of payment with booking finalization.
- Confirmation page displaying booking and payment details.

Cognitive Walkthrough

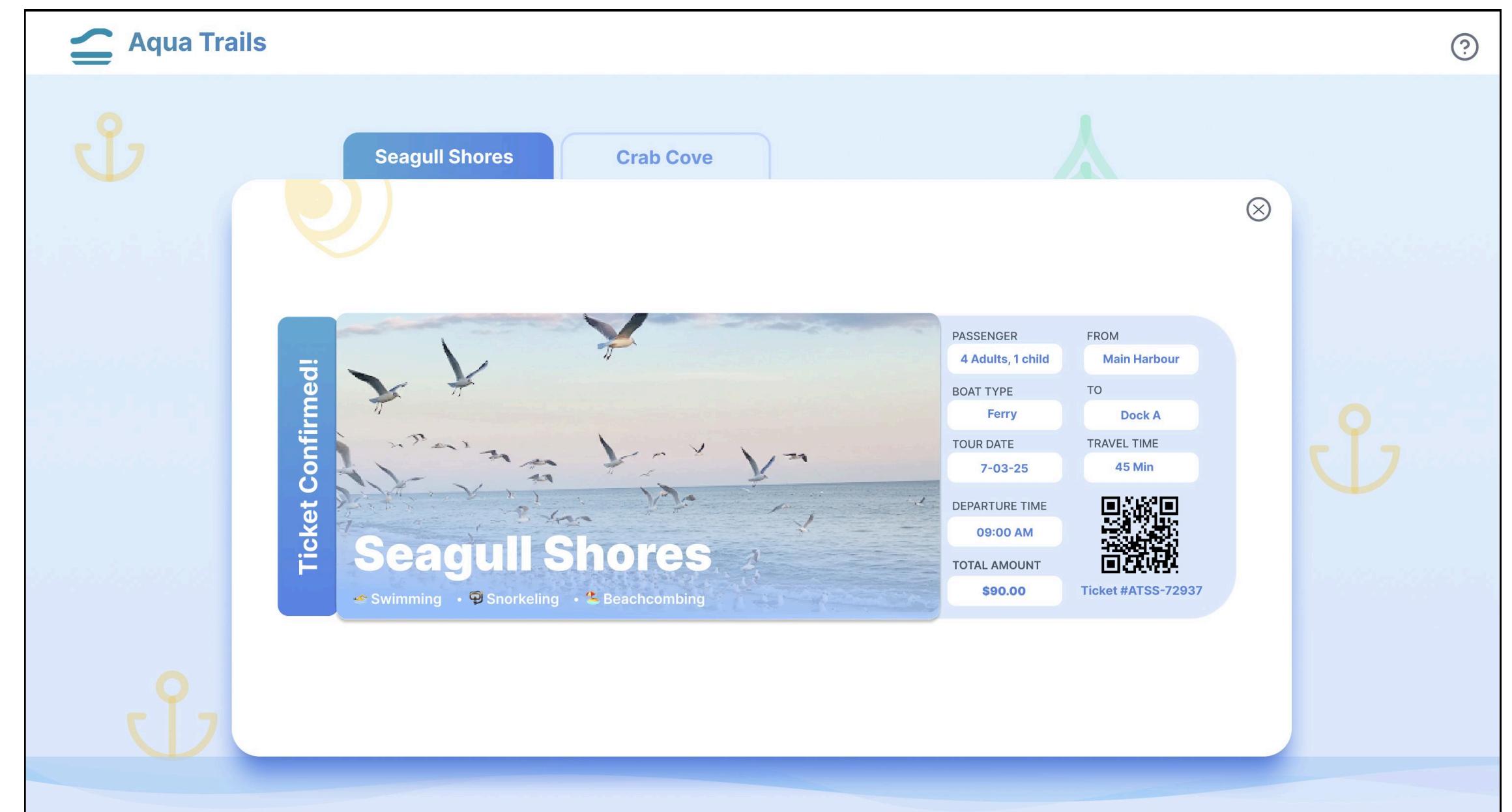
We did cognitive walkthroughs on five main screens: selecting language, passengers, route, mode, and payment method to make sure that users could easily find and understand their choices, get clear feedback after each action, and see how their choices affected what happened next.

Task	Action step	Action success		Action failure	
		yes <input checked="" type="checkbox"/>	from experience	the system tells them to	no <input type="checkbox"/>
Will the user try to achieve the right result?	yes <input checked="" type="checkbox"/>	from experience	they would see a call-to-action	no <input type="checkbox"/>	
Will the user notice that the correct action is available?	yes <input checked="" type="checkbox"/>	from experience	a prompt/label matches action	no <input type="checkbox"/>	
After the action is performed, will the user see that progress is being made toward the goal?	yes <input checked="" type="checkbox"/>	from experience	there's a connection between the system response and user goal	no <input type="checkbox"/>	

10. Ticket Crab Cove



10. Ticket Seagull Shores

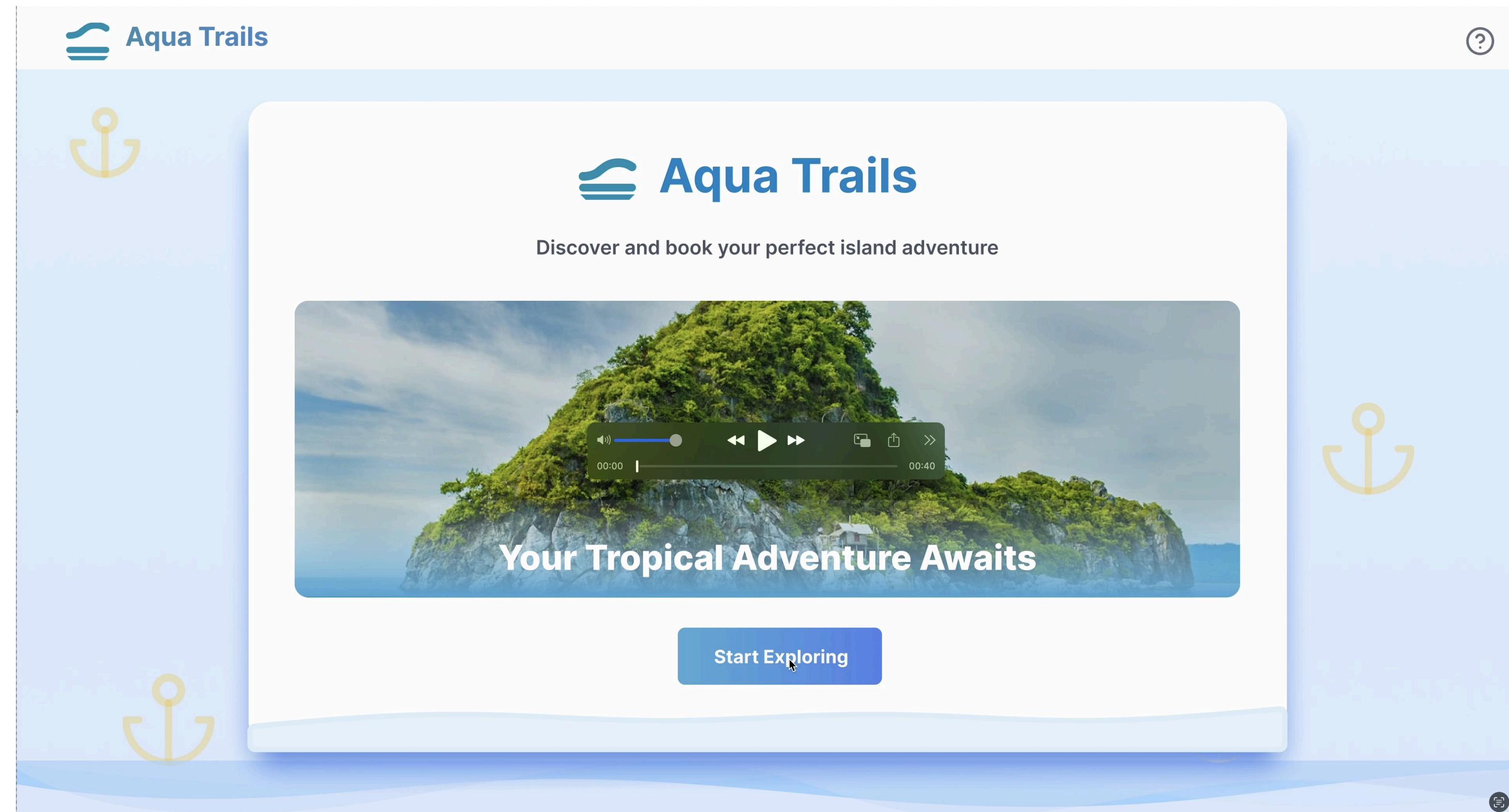


Learnings

In our boat booking kiosk project, we gained valuable insights into user interface design and cognitive ergonomics:

- 1. Exploring Ticket Booking:** We explored the ticket booking sector, tackling challenges related to schedules and user choices.
- 2. Cognitive Walkthroughs:** We learned the importance of these walkthroughs for identifying usability issues by analyzing each step of the user journey.
- 3. Simplifying User Decisions:** We focused on designing interfaces that simplify choices, reducing the cognitive load for users.
- 4. Applying Digital Ergonomics:** We applied ergonomic principles to make our digital interactions comfortable and user-friendly.

Prototype Video





Thank you