



Group Project
FINAL REPORT
Traveling App (TripTix)
Human Computer Interaction

Section 04
Group number 6

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Submitted to T.J. ISKANDAR BIN ABDUL AZIZ, Ts.

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1. Introduction

a. PROJECT BACKGROUND

Triptix is a mobile application developed to simplify the travel planning process and provide users with a seamless way to organize their trips. It is designed to address common challenges faced by travelers, offering an all-in-one platform to plan and manage their journeys efficiently.

The app focuses on three core functions essential to travel: hotel booking, flight booking, and booking management. These features enable users to easily search for and secure accommodations, reserve flights, and organize all their bookings in one convenient place, ensuring a hassle-free experience.

Triptix boasts a clean, intuitive design that enhances usability. Its straightforward navigation and user-friendly interface ensure that users can plan their trips quickly and effortlessly, making it an essential tool for travelers.

b. Ethnography

i. Observations

Task 1: Hotel Booking

Users faced challenges in efficiently locating hotels in their preferred locations due to the absence of advanced filtering options. Room types were unclear due to poorly written descriptions, and the lack of a side-by-side hotel comparison feature further complicated decision-making. Additionally, navigation issues were observed, as users found it difficult to locate a prominent map view button, which could assist in identifying hotel locations. Booking confirmation also caused uncertainty, with users unable to intuitively follow the steps for finalizing their bookings.

Task 2: Flight Booking


For flight booking, users struggled to identify the cheapest flights due to the lack of a price trend graph or calendar. Additionally, baggage policies and seat selection were not displayed prominently, causing confusion. Another major issue observed was the absence of clarity regarding refunds for canceled flights, as users expressed frustration over not finding this information easily. Multi-city bookings posed further difficulties, as users found it challenging to plan connecting flights or navigate the interface for this specific functionality.

Task 3: Booking Management

Users had trouble locating their booking history due to an unintuitive menu design. They also faced issues when trying to modify or cancel bookings, with a lack of clarity about steps or associated charges. Additionally, there were concerns about the accessibility of customer support options, which required multiple steps to reach. Viewing booking receipts and sharing details with co-travelers were other areas where the app fell short in usability, leaving users dissatisfied with their experience.

i. User Analysis

User Profile #1

	NAME: Mohamed Salam Abdalla Mohamed
	AGE: 24 years old
	BIRTHDAY: 23/08/1996
	EDUCATION LEVEL: Higher education
	AMBITION: Designer
	FAVOURITE COLOUR: Blue
	HOBBIES: Jogging
SKILL:	Language <ul style="list-style-type: none"> English Arabic <ul style="list-style-type: none"> Design Tools – Knowing software like Photoshop, Illustrator, or Figma. Typography & Colors – Using fonts and colors to make designs look great. Prototyping – Making sample designs or mockups.

PARTICIPANT CONSENT FORM

Dear Participant,

We invite you to participate in a research study conducted by **Group 6** on the subject of Course Human Computer Interaction from the CCI **department at Tenaga Nasional Uniten**.

Our research project focuses on developing and evaluating a mobile travel application designed to simplify and enhance travel experience. The proposed app offers key features such as:

1. **Flight Booking:** Search, compare, and book flights from various airlines.
2. **Hotel Booking:** Browse and reserve accommodation with detailed filters.
3. **Manage Bookings:** View, modify, or cancel existing bookings.

By participating in this study, you will test these features, interact with the app, and provide valuable feedback through surveys or interviews. Your insights will play a significant role in refining the app's functionality and ensuring it meets the needs of travelers.

Your participation is completely voluntary, and you are free to withdraw at any time without any consequences. Any information you share will remain confidential and will only be used for research purposes.

If you have questions or concerns regarding this research or your participation, please contact us at **naif.mo.un@gmail.com** or our lecturer/supervisor, T.J. Iskandar Bin Abdul Aziz, Ts. Abd Aziz, at **tjiskandar@uniten.edu.my**. Your involvement is crucial in helping us create an effective and user-friendly travel app.

Thank you for your support and for contributing to our research initiative.

Sincerely,

OMRANNAIF MOHANNAD NAYEF
SW01083445

CONSENT AGREEMENT


I confirm that I have been provided with an explanation of the purpose of the research, the study procedures, as well as the potential risks, discomforts, and benefits involved. Based on this information, I voluntarily agree to participate in this study.

Participant's Name: Mohamed Salam Abdalla Mohamed

Participant's Signature:



Date: 21/11/2024

	NAME: Abdullah KHALED MOHAMMED
	AGE: 22years old
	BIRTHDAY: 23/08/2002
	EDUCATION LEVEL: Higher education
	AMBITION: Fireman
	FAVOURITE COLOUR: Blue
	HOBBIES: Swimming
SKILL:	<p>Language</p> <ul style="list-style-type: none"> • English • Arabic • Mandarin <ul style="list-style-type: none"> • Strength and Stamina – Handling heavy equipment and enduring long, physically demanding shifts. • Agility – Moving quickly in tight or dangerous spaces.

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Thank you for your support and for contributing to our research initiative.

Sincerely,
Adham Ahmed Ali
CS01083426

CONSENT AGREEMENT

I confirm that I have been provided with an explanation of the purpose of the research, the study procedures, as well as the potential risks, discomforts, and benefits involved. Based on this information, I voluntarily agree to participate in this study.


Participant's Name: ABDULLAH KHALED MOHAMMED

Participant's Signature:



Date: 26/11/2024

User Profile #3

	NAME: Mohanad Moawia Mohamed
	AGE: 18 years old
	BIRTHDAY: 29/06/2006
	EDUCATION LEVEL: Higher education
	AMBITION: Civil Engineer
	FAVOURITE COLOUR: Blue and red
	HOBBIES: Drawing
SKILL:	Language <ul style="list-style-type: none"> • English • Arabic • Spanish <ul style="list-style-type: none"> • Communication – Coordinating with teams, clients, and contractors. • Leadership – Managing workers and ensuring projects run smoothly. • Time Management – Completing projects within deadlines.

PARTICIPANT CONSENT FORM

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By participating in this study, you will test these features, interact with the app, and provide valuable feedback through surveys or interviews. Your insights will play a significant role in refining the app's functionality and ensuring it meets the needs of travelers.

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Thank you for your support and for contributing to our research initiative.

Sincerely,
Hani Mohammed Abdullah
SW01083390

CONSENT AGREEMENT

I confirm that I have been provided with an explanation of the purpose of the research, the study procedures, as well as the potential risks, discomforts, and benefits involved. Based on this information, I voluntarily agree to participate in this study.

Participant's Name: Mohanad Moawia Mohamed Abdullah

Participant's Signature:

Date: 23/11/2024



Task analysis

ii. Task analysis

Observation 1

iii. TASK iv.	OBSERVATION	QNA	PROPOSED SOLUTION
TASK 1: Hotel Booking	<p>1-The user had difficulty finding available hotels in their preferred location due to a lack of filters.</p> <p>2-Despite selecting a hotel, they were unsure about the booking confirmation process.</p> <p>3-The map view feature was not clearly visible, making it harder to locate hotel locations.</p>	<p>1-Did you find it challenging to locate the filtering options?</p> <p>2-Did you notice where to click for more hotel details?</p>	<p>Add advanced filtering options such as price range, star rating, and amenities.</p> <p>Include a clear step-by-step booking confirmation process.</p> <p>Make the map view button prominent and easy to access.</p>
Task 2: Flight booking	<p>1-The user struggled to find the cheapest flights due to a lack of price trend insights.</p> <p>2-The process to</p>	<p>1-Did you find it difficult to compare flight prices?</p> <p>2-Did you notice the review screen before proceeding to payment?</p>	<p>Integrate a price trend graph or calendar to display price variations.</p> <p>Design a clear, user-friendly seat</p>

	<p>select seats was not intuitive.</p> <p>3-Information about baggage allowance was not easily accessible.</p>	<p>3-Was the seat selection feature clear and easy to use?</p>	<p>selection interface.</p> <p>Display baggage allowance information prominently during the booking process.</p>
Task 3: Booking management	<p>The user found it hard to locate their booking history due to an unintuitive menu.</p>	<p>1-Was it easy to find and use the options to modify or cancel a booking?</p> <p>2-Did you know where to access your past and upcoming bookings?</p>	<p>Redesign the menu to make booking history easily accessible.</p>

TASK	OBSERVATION	QNA	PROPOSED SOLUTION
TASK 1: Hotel Booking	1-The user struggled with understanding room types due to unclear descriptions.	1-Was the calendar interface difficult to navigate? 2-Did you notice where to click for more hotel details?	Use concise and clear room descriptions with images for better understanding.
Task 2: Flight booking	1-The user was unsure about the refund process for canceled flights. 2-Difficulty in finding connecting flights for multi-city travel. 3-Flight duration and layover time were not highlighted adequately.	1-Was the pricing for each class clearly displayed?	Provide detailed information about the refund process during the booking flow. Add a multi-city travel option with intelligent suggestions for connecting flights. Highlight flight duration and layover time prominently in the search results.
Task 3: Booking management	1-Provide detailed information about the refund process during the booking flow. 2-Add a multi-city travel option with intelligent	1-Would a step-by-step guide for rescheduling improve the experience?	Introduce a sharing feature for booking details via email or messaging apps. Add a 'Save to Calendar' option to streamline planning. Optimize the app to

	<p>suggestions for connecting flights.</p> <p>3-Highlight flight duration and layover time prominently in the search results.</p>		<p>function under weak internet conditions for viewing past bookings.</p>
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Observation 3

TASK	OBSERVATION	QNA	PROPOSED SOLUTION
TASK 1: Hotel Booking	<p>1-The user found it difficult to compare multiple hotels due to the lack of a comparison feature.</p> <p>2-Sorting options (e.g., by price or rating) were hard to locate.</p> <p>3-Cancellation policies were not displayed clearly, leading to confusion.</p>	<p>1-Did you find the filtering options helpful or confusing?</p> <p>2-Were there too many or too few filtering options?</p>	<p>Introduce a feature to compare selected hotels side by side.</p> <p>Place sorting options prominently at the top of the page.</p> <p>Ensure cancellation policies are displayed upfront in an easy-to-read format.</p>
Task 2: Flight booking	<p>1-The user had trouble identifying trusted airlines due to the lack of user reviews.</p> <p>2-The search results were cluttered, making it hard to focus on relevant flights.</p> <p>3-Additional charges (e.g., service fees) were not displayed</p>	<p>1-Would a brief description of each flight class help you make a decision?</p>	<p>Incorporate user reviews and ratings for airlines.</p> <p>Use a cleaner layout with sorting and filtering options for flight results.</p> <p>Display all costs, including additional charges, upfront to avoid surprises.</p>

	upfront, causing frustration.		
Task 3: Booking management	<p>1-The user was unsure about the refund process for canceled bookings. Finding customer support options required too many steps.</p> <p>2-Payment receipts were not easily accessible post-booking.</p>	1-Did you find the option to reschedule your booking easily?	<p>Provide clear guidance on refunds within the booking details section.</p> <p>Add a 'Customer Support' button prominently on the home screen.</p> <p>Ensure payment receipts are easily accessible from the booking details page.</p>

iv. Scenario

Amira is a 28-year-old marketing professional preparing for a business trip. She needs to book a flight, reserve a hotel room, and ensure all her bookings are well-organized for the trip. Amira has limited time to plan her travel and needs a simple solution to manage everything efficiently. She decides to use the Triptix app.

1. Flight Booking:

Amira opens the Triptix app, where she immediately sees the “Flight Booking” option on the main screen. She taps on it, enters her departure city, destination, travel date, and passenger details. The app provides a list of available flights. She selects her preferred flight and receives instant confirmation with all flight details displayed on the screen.

2. Hotel Booking:

Next, Amira navigates back to the home screen and taps on “Hotel Booking.” She enters her destination city and travel dates. The app displays a list of hotels. After reviewing her options, she selects a hotel and confirms her reservation. Just like with the flight, she receives a confirmation summary.

3. Booking Management:

To ensure her travel plans are organized, Amira taps on “Booking Management” from the home screen. Here, she finds a summary of her confirmed bookings, including her flight and hotel details. The app allows her to view, edit, or cancel her bookings if needed. She appreciates how all her trip details are stored in one place, making it easy to access when she travels.

2. Design

a. Design techniques

User Flow Diagrams

- Tools used: Pencil on paper
- Sketches out the interface designs and navigation for user
- Used as a blueprint to refer to when creating the prototype

Wireframing

- Tools used: Figma
- Creating the outline and layout of the interfaces for early design planning
- Referred to other interfaces like booking app

User Testing

- Method used: Ethnography
- Gather feedback and identify any usability issues
- Real users are involved in the prototype testing
- Their feedback and opinions are gathered for any future improvements

b. Principles and guidelines applied

In designing Triptix, we applied Norman's principles of design to ensure the app is intuitive, efficient, and user-friendly for all travelers. These principles guided the development of key features and interactions to create an app that aligns with user expectations and enhances the overall experience.

Visibility was prioritized by clearly displaying the three main functions—hotel booking, flight booking, and booking management—on the home screen. Each feature is represented by universally recognizable icons and labeled buttons, making it easy for users to identify and access the desired functionality without confusion.

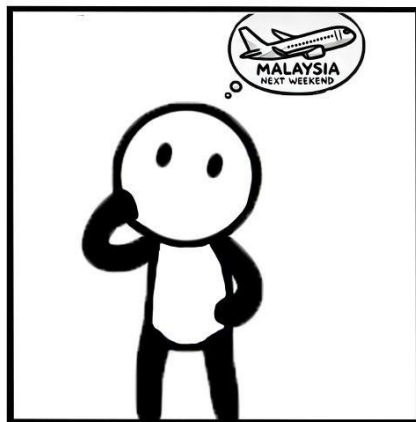
Feedback plays a critical role in Triptix. Users receive real-time responses to their actions, such as confirmation messages for successful bookings and loading indicators during processing. This ensures users are always informed about the status of their interactions.

By implementing these principles, Triptix not only meets usability standards but also offers a smooth and predictable experience, making it easy for users to navigate and accomplish tasks efficiently.

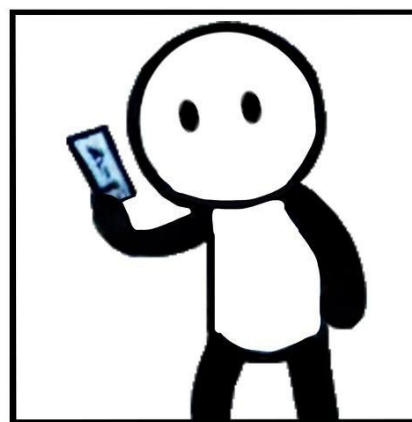
c. Storyboards

Main Task:

1. To be able to book a flight.
2. To be able to book a hotel.
3. To be able to Manage the booking.



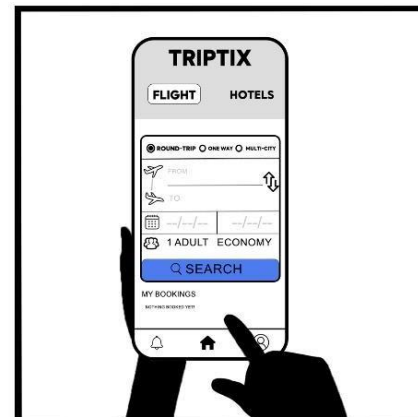
The guy is thinking about travelling to Malaysia next weekend.



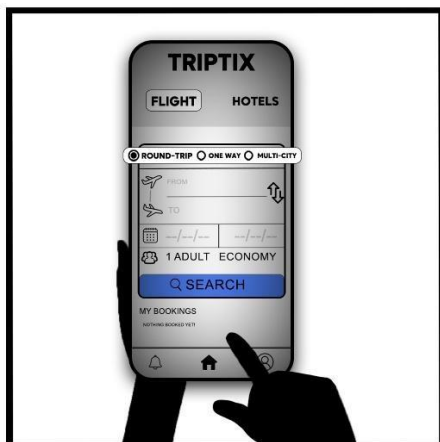
He holds his phone.



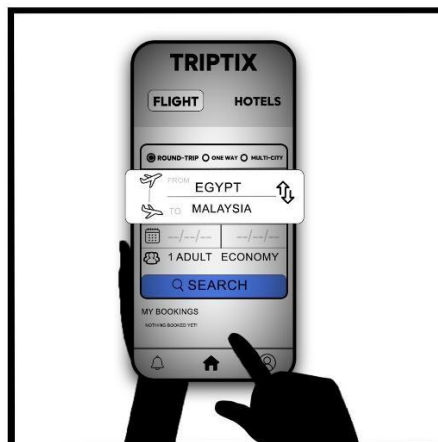
He opened *Triptix* app.



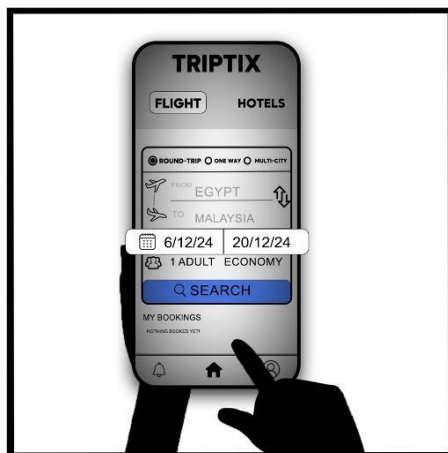
The App opens the interface page



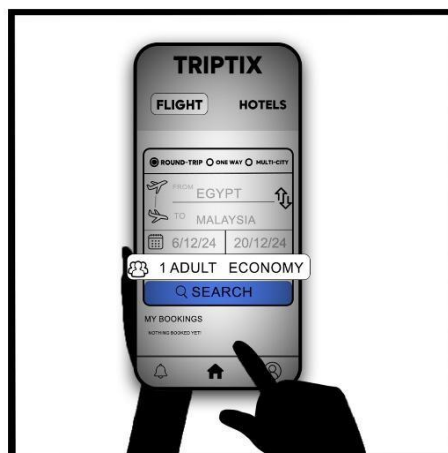
he choose roundtrip travel.



he choose from *Egypt* and
he choose to travel to
Malaysia.



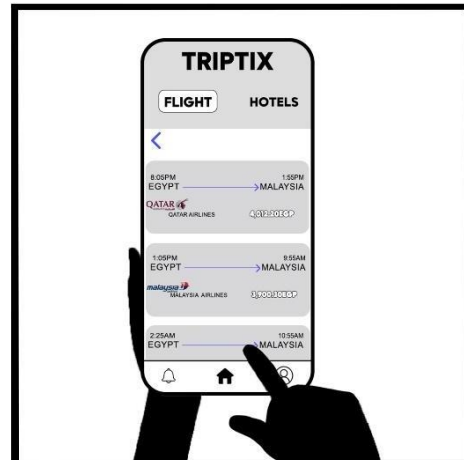
He wants to travel from
6/12/2024 to 20/12/2024.



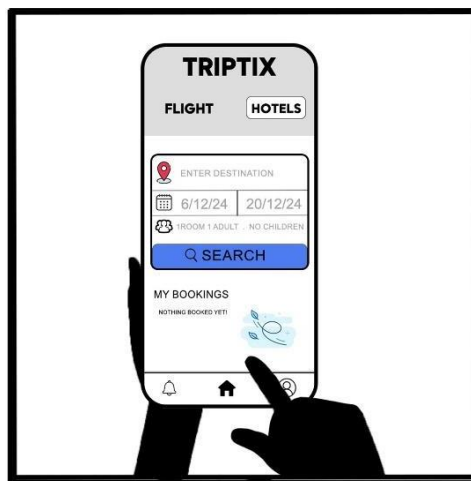
he is only one Adult.
and he choose Economy
class.



He searched for available flights.



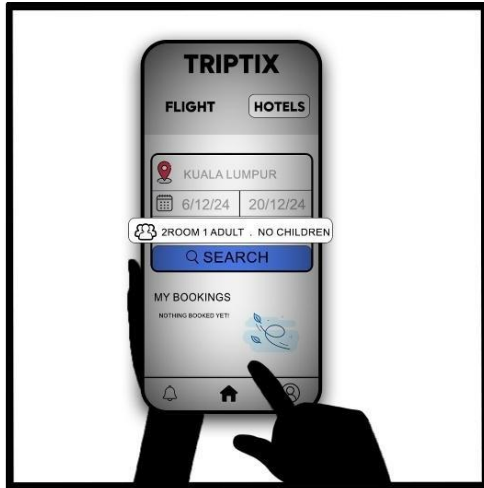
He chooses the flight that suits him and he paid.



Then he wants to book hotel to stay in it after he arrives.



He chooses his distention to "Kuala Lumpur".



He chooses how many
rooms and people.



He searched for a good Hotel.



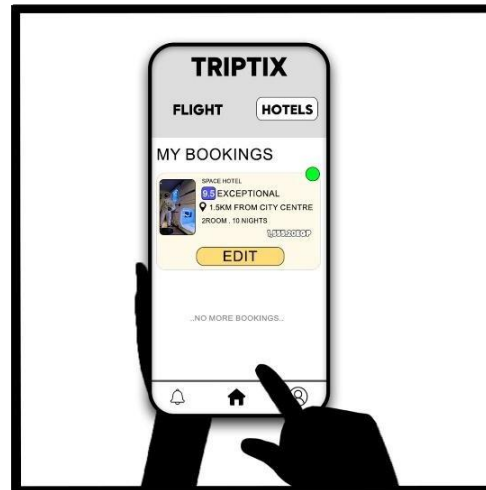
He books a hotel.



He is happy now and
excited for the flight.



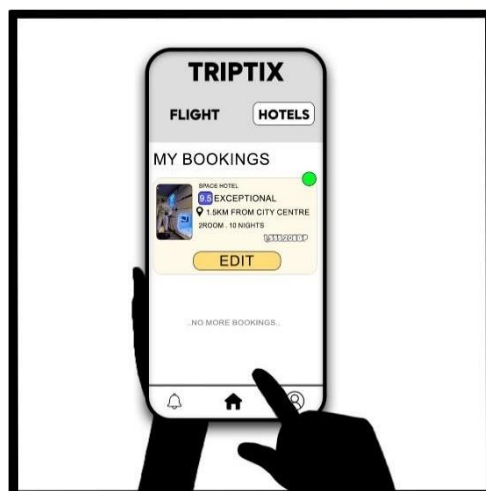
He is now at the airport waiting for the flight.



because of the flight was delayed, He re-checks his booking to ensure everything is okay.



After he checks he realized that he accidentally chooses 2 rooms instead of 1 room for the hotel booking.



He click on the edit button.



He edits his booking and
chooses 1 room and
click on the save butt



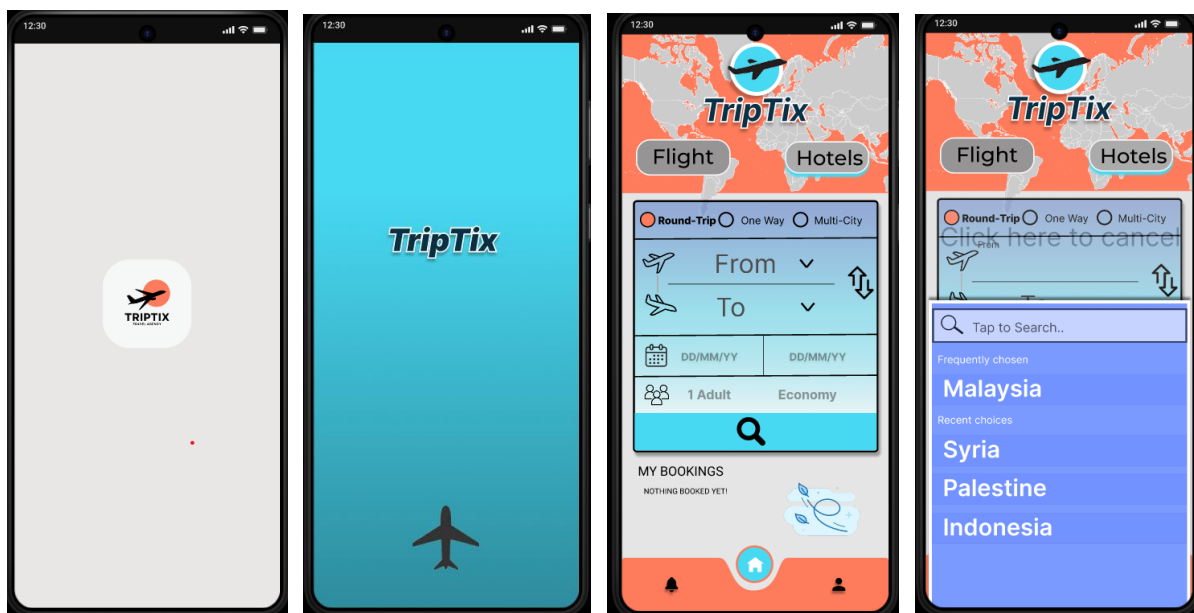
Then he arrived safely to he
Malaysia.

3. Implementation

a. Implementation of the system

Prototype of TripTix.

<https://www.figma.com/proto/cGTGOVc81XarD6JRdHU1oB/new-v?node-id=0-1&t=C6GNtK5e7xF8rqmz-1>

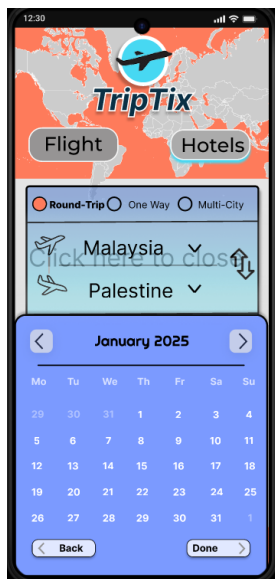


Icon of the app

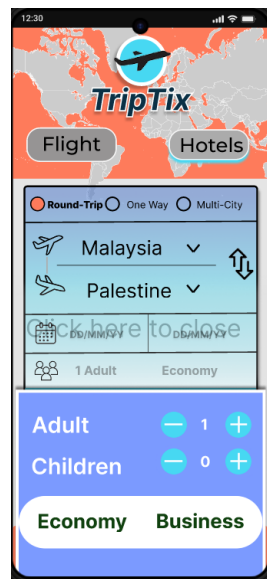
First page

Interface of the app

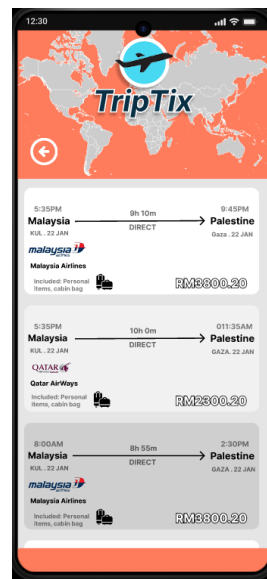
Book a flight



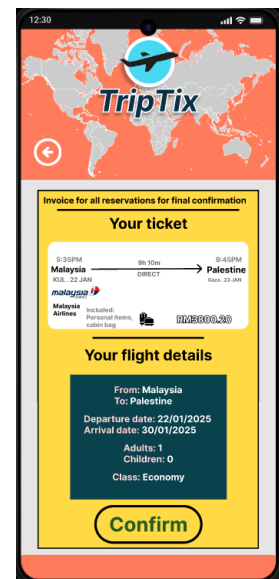
Chose a date



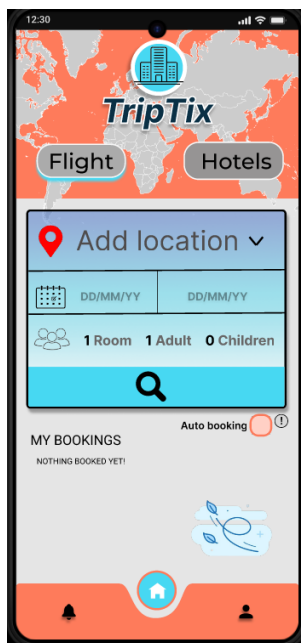
Passengers page



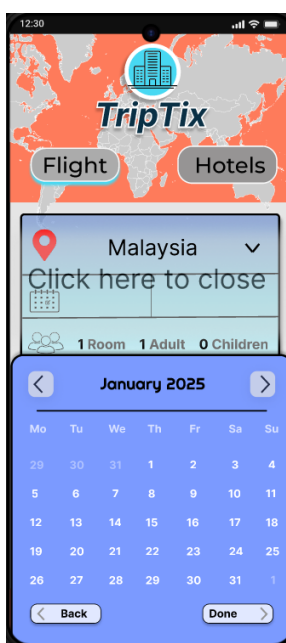
Available flights



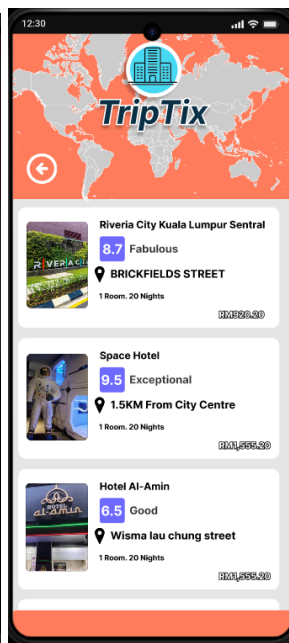
Confirm page



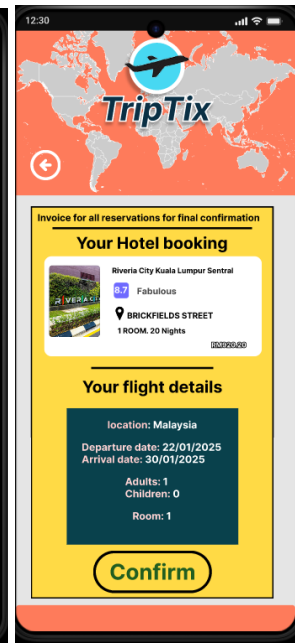
Hotel booking page



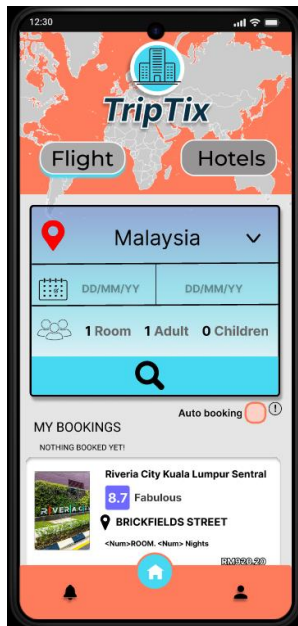
Chose place and date



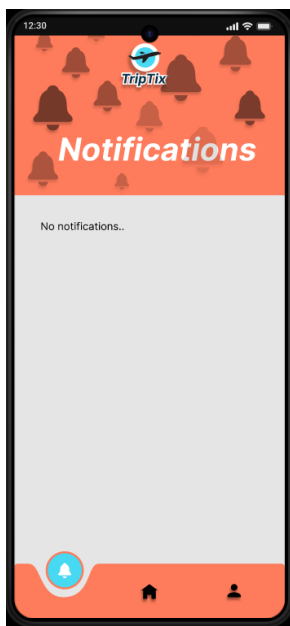
Available hotels



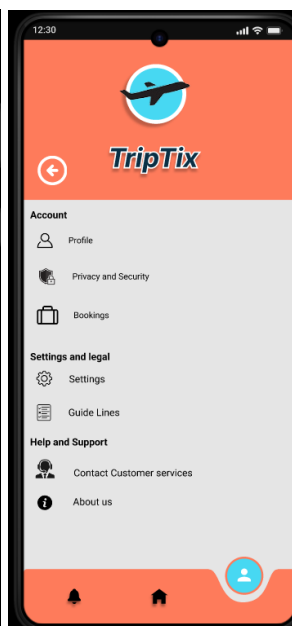
Confirm page



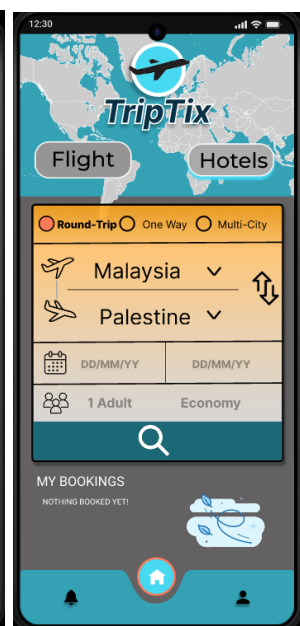
Manage booking page



Notifications page

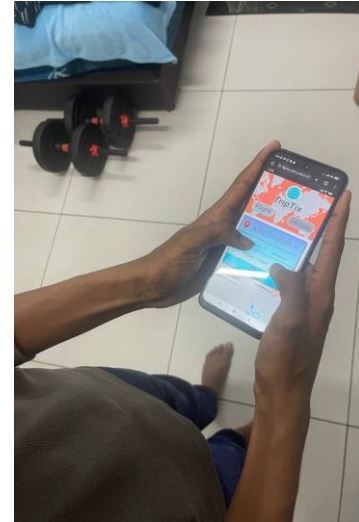
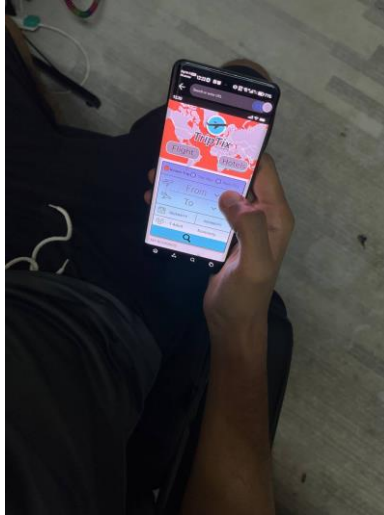
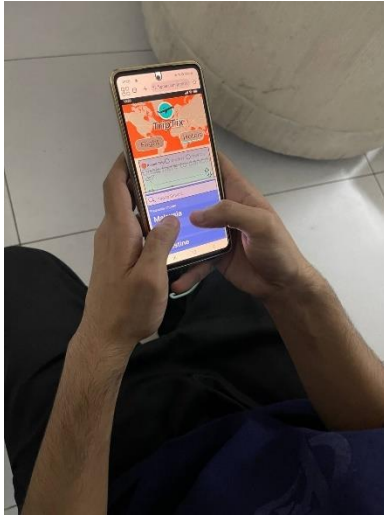


Profile page



Dark mood

b. Testing/Evaluation



User feedback for Triptix was overwhelmingly positive, with all three users expressing satisfaction after trying out all three core tasks: hotel booking, flight booking, and booking management. Each user was able to navigate the app with ease and complete their tasks without encountering major issues. This confirms that the design and functionality of Triptix align well with user needs and expectations.

Users specifically appreciated the simplicity of the interface, which allowed them to perform the core tasks without unnecessary distractions. The clean design and clear instructions provided throughout the app were particularly well-received, as they guided users effortlessly through the booking processes. This made the experience smooth and stress-free, even for users who might not be tech-savvy.

While the users were generally satisfied with the app's current color scheme, some suggested exploring alternative colors to enhance visual appeal. Despite this, they expressed contentment with the overall design and its ability to support them in completing tasks quickly and efficiently. This feedback highlights that Triptix not only meets its functional goals but also provides an enjoyable user experience.

4. Conclusion

a. Conclusion of the project

Triptix is a well-designed travel application that successfully integrates hotel booking, flight booking, and booking management into a simple and user-friendly platform. Guided by Norman's design principles, the app prioritizes visibility, feedback, and consistency, ensuring a seamless experience for users. The clean interface, clear instructions, and intuitive navigation make the system accessible to users of varying technical expertise, enabling them to complete tasks efficiently and with minimal effort.

User testing further validated the app's functionality and design. All three users were able to perform the three core tasks effortlessly and expressed high levels of satisfaction with the application. The simplicity of the interface and clarity of instructions stood out as key strengths, while minor suggestions, such as exploring alternative color schemes, provided valuable insights for potential future iterations. Overall, users found the app reliable, efficient, and well-suited for its purpose.

This report highlights the entire development process, from conceptualization to user testing, and demonstrates how Triptix achieves its goal of simplifying travel planning. By combining strong design principles with user feedback, the app has proven to be a practical and effective solution for travelers. With room for refinements.

5. References

1. DesignLab. (n.d.). *Introduction to Figma*. Retrieved January 10, 2025, from <https://designlab.com/figma-101-course/introduction-to-figma>
2. Principles.Design. (n.d.). *Don Norman's Principles of Design*. Retrieved January 10, 2025, from <https://principles.design/examples/don-norman-s-principles-of-design>
3. Booking.com. (n.d.). *Booking.com*: from <https://www.booking.com/index.en-gb.html>