Travel Planner

Presented To

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Contents

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SHORT STUDY OF WHAT ARE EXISTING APPLICATIONS THAT DO THE SAME JOB AND HOW OUR APPLICATION WILL BE BETTER THAN THEM.

Competing apps

- ❖ wander
- ❖ Viator
- ❖ Booking.com

App Features

Our app has two main features:

- *Easy Trip Planning:*

Our app is great for planning road trips. It helps you find the best routes, shows you where to go, and updates you on traffic in real-time. Plus, it suggests fun places to visit, eat, and stay along the way. It makes planning and navigating your trip super easy.

- *Community and Friends:*

With our app, you can connect with other people who love road trips. You can read reviews, get recommendations, and chat with fellow travellers. It's like having a group of friends to help you plan your adventure.

Superiority

In our app, navigation is a big deal. We give you detailed maps, and live trips updates. Other apps are mostly about booking tickets, but we put a lot of effort into helping you find your way around.

UX AND CX STUDY

Icons

Icons are strategically employed throughout the UI to enhance user understanding and streamline navigation. They serve as visual cues, aiding users in quickly identifying functions and actions. Careful consideration is given to icon design, ensuring clarity and consistency across the platform. This approach not only simplifies the user experience but also fosters engagement and efficiency in interacting with the interface.
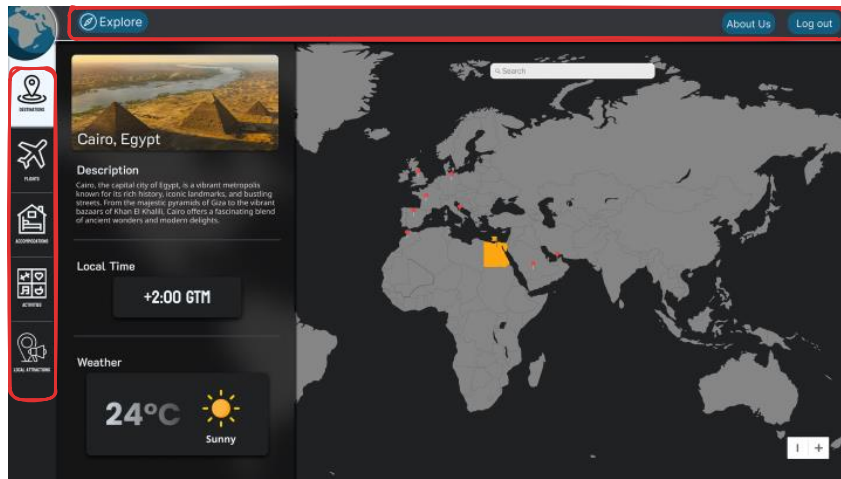
Figure 1 Icons from the app design.

Cards for Representing Information

The use of cards as a design pattern provides a structured and organized presentation of information within the UI. Each card encapsulates a specific piece of content, facilitating easy scanning and comprehension for users. By employing cards, the UI achieves a visually appealing layout while maintaining coherence and hierarchy in the arrangement of diverse content types. This modular approach not only enhances usability but also allows for flexibility and scalability in content management.

Spacing is carefully calibrated to ensure visual clarity and optimal user experience. Strategic use of padding and margins creates a balanced composition, allowing content to breathe and facilitating ease of navigation within each card.
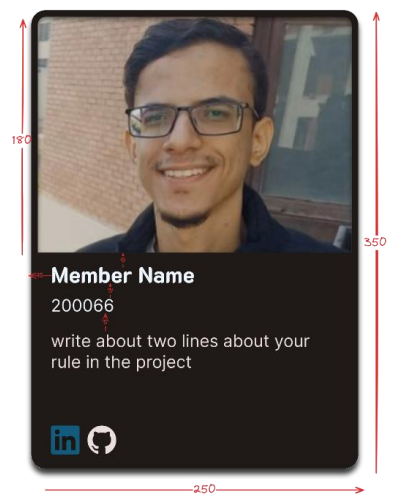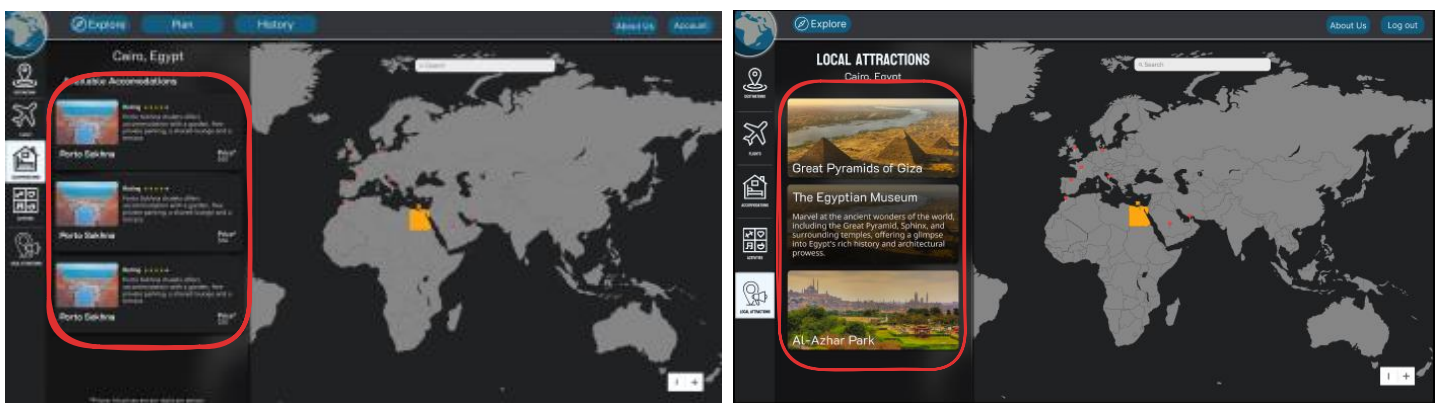

Figure 4 Dimensions of card.

Figure 3 Example of cards.

Figure 3 Example of cards.

Colours

The colour scheme of the UI is meticulously crafted to align with the chosen aesthetic while prioritizing user comfort and readability. In consideration of the UI's dark mode, direct black (#000) and direct white (#FFF) are purposefully avoided in favour of subtler tones that maintain contrast without overwhelming the user instead of them we used other colour shades as Alice blue (#F0F8FF), light grey (#D9D9D9), very dark shade of grey (#202123) and other shades. Each colour selection serves a specific function, whether it's indicating actionable elements, highlighting important information, or establishing visual hierarchy. By employing a refined palette tailored to the UI's design language, users are provided with a visually pleasing and cohesive experience that promotes engagement and usability.

Figure 5 Example on chosen colours.

Fonts

Font choices within the UI are carefully selected to complement the overall design aesthetic and ensure optimal legibility across different viewing conditions, including the dark mode interface. Typeface selections prioritize readability on varying backgrounds, utilizing nuanced shades to enhance contrast and maintain clarity without compromising the user experience. This attention to detail fosters a seamless reading experience and reinforces the UI's commitment to design excellence and user-centricity.
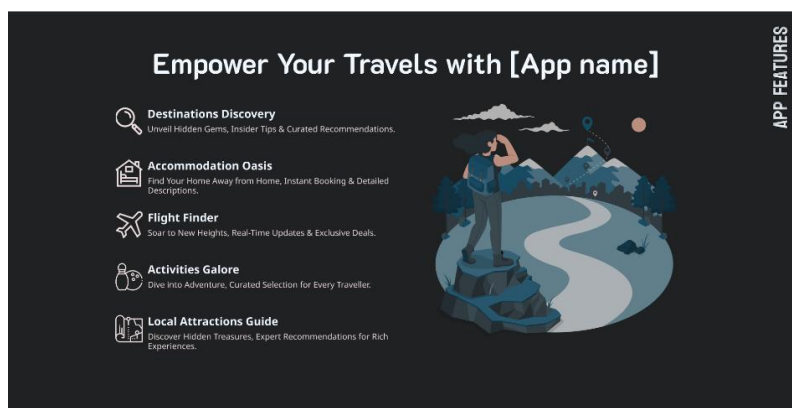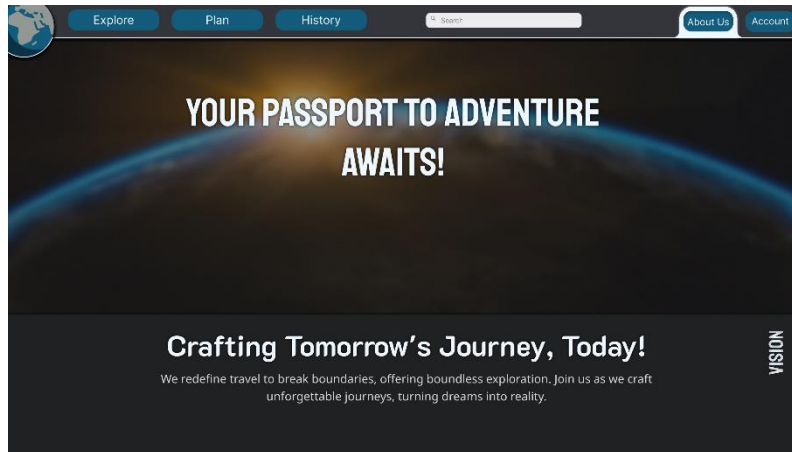

Figure 6 Example on fonts used.

Figure 7 Example on fonts used.

IDENTIFYING THE STAKEHOLDERS AND USERS OF YOUR APPLICATION

Stakeholders

- Travelers
- Airlines
- Local Market
- Customer Support
- Hotels
- Car Rental

- Travel Agencies
- Transportation Companies
- Translators
- Tour Guides
- Events and Activities organizers

THE USER STORIES OF THE APPLICATION

No.	User Story	Acceptance Criteria
1	As a travel agency representative, I show all local attraction sites at selected destinations so that I can promote more trips for my clients.	- Many local attractions appear. - The attraction has a good description.
2	As a Traveler I want to search the destinations so that I can plan my next trip.	- All the available cities appear as a search result. - The website suggests all cities with same name. - The locations of the cities are correct on the map.
3	As a hotel manager, I want to watch for my hotel reviews on the website so I can enhance my service to the guests	- The hotel reviews can be seen when the hotels are selected. - The review date should be visible.

4	As a traveller I want to book activities at my destinations so that I get a better travelling experience	- Activities have clear descriptions including price, period, and date. - Activities should be reviewed to avoid any scam.
5	As a traveller, I want to leave a review for destinations, accommodations, activities, or other services, so that I can share my experiences with other travellers and help them make informed decisions.	- Travelers should be able to leave reviews for destinations, accommodations, activities, etc., with a rating and optional comments. - Reviews should be displayed on the respective pages and sorted by relevance or date. - Only registered users should be able to leave reviews to prevent spam or misuse.
6	As a traveller, I want to search for flights to my desired destinations, so that I can find the best options for my travel dates and budget.	- The flight search should return accurate and up-to-date information on available flights, including schedules, airlines, and prices. - Filters and sorting options should be available to help travellers narrow down their search results. - The system should integrate with reliable flight booking APIs to provide real-time data.
7	As a traveller, I want to view reviews for destinations, accommodations, activities, or other services, so that I can gather insights and make informed decisions about my trip.	- Travelers should be able to view reviews for destinations, accommodations, activities, etc., with relevant details such as ratings, comments, and dates. - Reviews should be displayed in an easily accessible and understandable format.
8	As a traveller, I want to search for specific destinations, so that I can explore different options and plan my trip according to my preferences.	- The destination search should return accurate and relevant results based on the traveller's input. - Results should include details such as descriptions, photos, and popular attractions for each destination.
9	As a traveller, I want to search for accommodations at my destination, so that I can find comfortable and suitable places to stay during my trip.	- The accommodation search should return accurate and relevant results based on the traveler's input. - Each accommodation listing should include details such as descriptions, photos, prices, availability, and user ratings.
10	As a traveller, I want to search for local attractions at my destination, so that I can explore the culture, history, and landmarks of the place I'm visiting.	- The local attractions search should return accurate and relevant results based on the traveller's input.

		- Each attraction listing should include details such as descriptions, photos, locations, and user ratings.
11	As a transportation company, I want to identify and prioritize the most reviewed destinations in cities, so that I can offer transportation services to these high-demand locations and cater to the needs of travellers.	- The system should rank destinations within cities based on the number and positivity of reviews. - Prioritized destinations should be easily accessible for transportation planning
12	As a local shop owner, I want to promote my products and attract tourists visiting the area through the travel planner website.	- I can create a profile for my shop on the website, including a description of my products, photos, and contact information. - The website allows travellers to search for local shops based on categories such as crafts, souvenirs, or food specialties, and displays my shop in relevant search results.
13	As a tour guide, I want to organize trips to the most visited places in cities, so that I can offer comprehensive and engaging experiences to travellers.	- I can access a list of the most visited places in each city, ranked based on factors such as popularity, reviews, and historical significance.
14	As an airline company, I want to offer competitive prices on the travel planner website to increase visibility and attract more customers.	- I can collaborate with the website administrators to feature my airline prominently on the homepage or in search results for relevant routes and destinations, increasing exposure and click-through rates.
15	As an escort rental company, I want to expand my services to airports and highly viewed/visited cities to attract travellers and increase bookings.	- I can identify airports and cities with high tourist traffic and demand for escort services through market research and analytics.
16	As a hotel manager, I want to partner with the travel planner website to showcase my accommodations to travellers, increasing bookings and occupancy rates.	- I can list my hotel on the website with detailed descriptions, photos, amenities, and pricing. - The website allows travellers to search for accommodations based on their preferences, such as location, budget, and amenities, and displays my hotel in relevant search results.
17	As a local restaurant owner, I want to attract tourists to dine at my establishment through the travel planner website.	- I can create a profile for my restaurant on the website, showcasing our menu, ambiance, location, and reviews. - The website features a dining section where travelers can search for restaurants based on cuisine,

			location, and reviews, and my restaurant appears in relevant search results.
18	As a city tourism board, I want to collaborate with the travel planner website to promote our city as a tourist destination and increase visitor numbers.	-	I can provide information about attractions, events, tours, and accommodations in our city to be featured on the website.
19	As a language school or language guide service, I want to promote language learning opportunities to travellers through the travel planner website.	-	The website showcases language learning options alongside other travel services, encouraging travellers to incorporate language learning into their itinerary.
20	As a wellness retreat or spa resort, I want to attract travellers seeking relaxation and rejuvenation through the travel planner website.	-	I add my wellness retreat or spa on the website, highlighting services such as massages, yoga classes, meditation sessions, and holistic treatments.

ALL THE RELATED FUNCTIONAL AND NON-FUNCTIONAL REQUIREMENTS

Functional Requirements
Searching   - Users can search for cities on map and choose between them.
Viewing cities accommodations, activities, and local attractions   - User can view accommodations, activities, and local attractions of each city on the map.
Checking for flights   - User can view the flights to each city and view its meta data.

Non-functional Requirements
Performance   - The app should be responsive and provide quick search results even during peak usage times.   - Page load times should be fast to enhance user experience.
Reliability   - The app should be available and reliable 24/7 to accommodate users across different time zones.   - It should have failover mechanisms and backups in place to ensure minimal downtime.

| Scalability |
| :--- |
| - The app should be designed to handle a growing number of users over time. |
| - The underlying infrastructure should be scalable to accommodate increasing demands without compromising performance. |

Usability:
- The app should have an intuitive user interface that is easy to navigate, even for first-time users.

Security
- Secure authentication protocols should be in place to prevent unauthorized access to user accounts.

USE CASE DIAGRAM
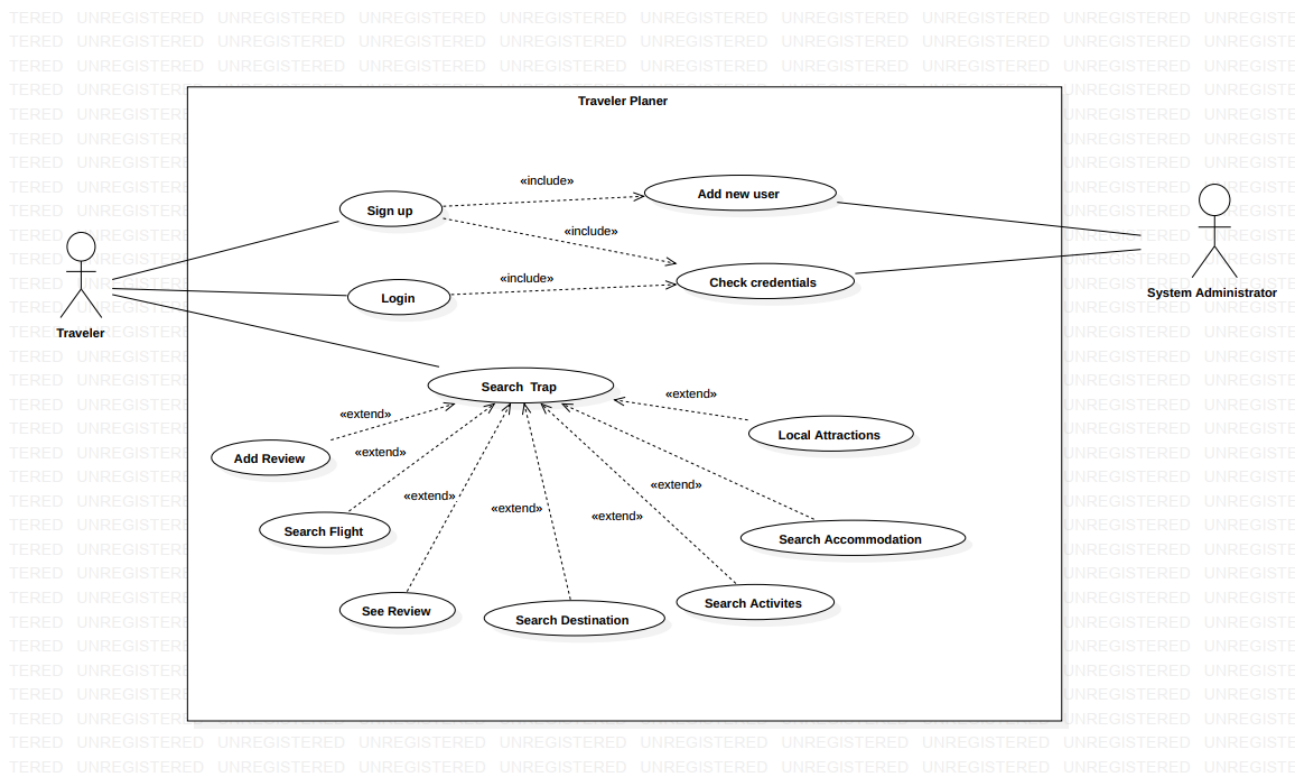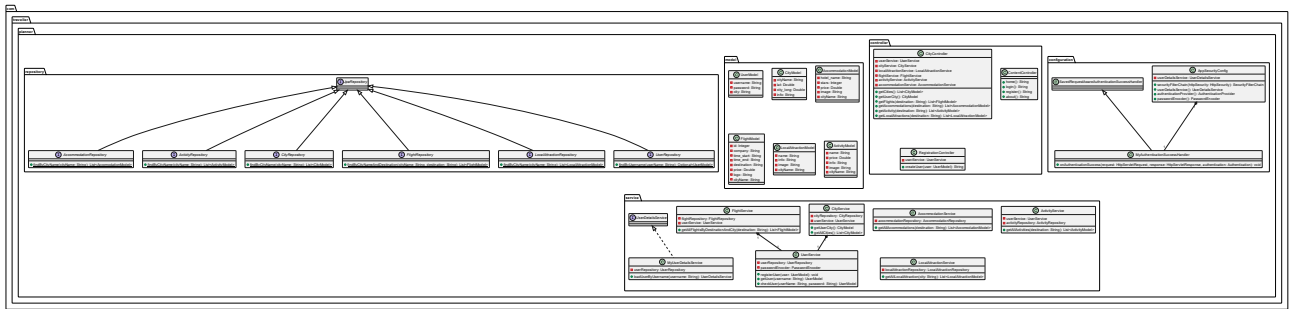
CLASS DIAGRAM & SAMPLE OF OBJECTS SCENARIOS

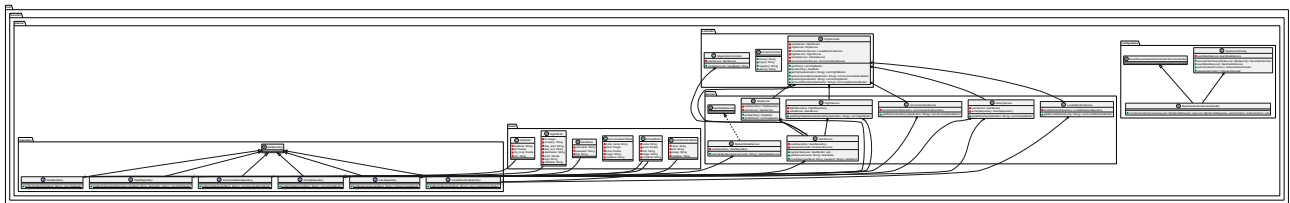*Figure 8 Class Diagram Independent packages.*
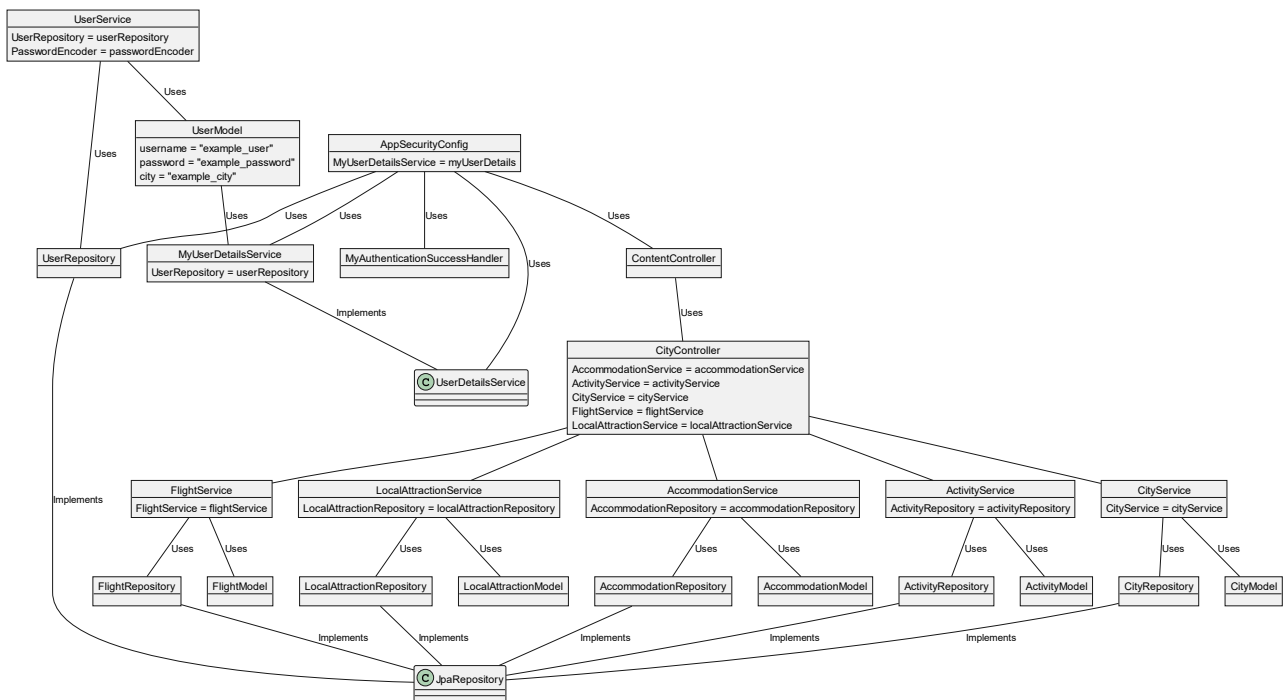

Figure 9 Class Diagram packages dependent

Figure 10 Sample of object diagram

TWO USE CASE DESCRIPTIONS AND THREE SEQUENCE DIAGRAMS

Use Case Name:	Sign Up
Created By:	System Administrator
Description:	Allows a traveller to create a new account on the website.
Primary Actor:	Traveler
Secondary Actor:	None
Preconditions:	None
Postconditions:	A new account is created for the traveller.
Main Success Scenario:	1. Traveler navigates to the sign-up page. 2. Traveler fills in the required information. 3. Traveler submits the sign-up form. 4. System validates the provided information. 5. System creates a new account for the traveler. 6. System redirects the traveler to the login page.
Extensions:	None

Use Case Name:	Login
Created By:	System Administrator
Description:	Allows a traveller to authenticate and access their account.
Primary Actor:	Traveler
Secondary Actor:	None
Preconditions:	The traveller has a registered account.
Postconditions:	The traveller is logged in and has access to their account.
Main Success Scenario:	1. Traveler navigates to the login page. 2. Traveler enters their credentials. 3. System verifies the credentials. **4.** System grants access to the traveller's account.
Extensions:	If the provided credentials are incorrect: 1. System displays an error message. **2.** Traveler retries entering the correct credentials.

Use Case Name:	Search Trip
Created By:	Traveler
Description:	Enables a traveller to search for destinations, flights, accommodations, activities, local attractions, etc.
Primary Actor:	Traveler
Secondary Actor:	None
Preconditions:	None
Postconditions:	The traveller has obtained relevant information for their trip.
Main Success Scenario:	1. Traveler enters search criteria (destination, dates, etc.). 2. System retrieves relevant information based on the search criteria. 3. System displays search results to the traveller.
Extensions:	None

Use Case Name:	Add Review
Created By:	Traveler
Description:	Allows a traveller to add a review for a specific destination, accommodation, activity, etc.
Primary Actor:	Traveller
Secondary Actor:	None
Preconditions:	The traveller has experienced the destination, accommodation, or activity.
Postconditions:	A review is added to the system for the specified entity.
Main Success Scenario:	1. Traveler navigates to the review section of the specified entity. 2. Traveler selects the option to add a new review. 3. Traveler provides a rating and comments for the entity. 4. System validates the review. 5. System adds the review to the entity.
Extensions:	None

Use Case Name:	Search Flight
Created By:	Traveller
Description:	Allows a traveller to search for flights to their desired destinations.
Primary Actor:	Traveller
Secondary Actor:	None
Preconditions:	None
Postconditions:	The traveller has obtained relevant flight options for their trip.
Main Success Scenario:	1. Traveler navigates to the flight search section. 2. Traveler enters the departure and arrival cities, as well as the desired travel dates. 3. System retrieves relevant flight options based on the search criteria. 4. System displays the available flight options to the traveler.
Extensions:	If no flights are available for the specified criteria: 1. System displays a message indicating no available flights. 2. Traveler modifies the search criteria and retries the search.

Use Case Name:	See Review
Created By:	Traveller
Description:	Enables a traveller to view reviews for destinations, accommodations, activities, etc.
Primary Actor:	Traveller
Secondary Actor:	None
Preconditions:	Reviews for the specified entity are available.
Postconditions:	The traveller has accessed and viewed reviews for the specified entity.
Main Success Scenario:	1. Traveler navigates to the review section of the specified entity. 2. System retrieves available reviews for the entity. 3. System displays the reviews to the traveler.
Extensions:	None

Use Case Name:	Search Destination
Created By:	Traveller
Description:	Enables a traveller to search for specific destinations.
Primary Actor:	Traveller
Secondary Actor:	None
Preconditions:	None
Postconditions:	The traveller has obtained relevant information about the destination.
Main Success Scenario:	1. Traveler navigates to the destination search section. 2. Traveler enters search criteria (destination name, location, etc.). 3. System retrieves relevant destination information based on the search criteria. 4. System displays the search results to the traveler.
Extensions:	None

Use Case Name:	Search Activities
Created By:	Traveller
Description:	Allows a traveller to search for activities available at their destination.
Primary Actor:	Traveller
Secondary Actor:	None
Preconditions:	None
Postconditions:	The traveller has obtained relevant information about available activities.
Main Success Scenario:	1. Traveler navigates to the activities search section. 2. Traveler enters search criteria (activity type, location, etc.). 3. System retrieves relevant activity information based on the search criteria. 4. System displays the available activities to the traveler.
Extensions:	None

Use Case Name:	Search Accommodation
Created By:	Traveller
Description:	Allows a traveller to search for accommodations at their destination.
Primary Actor:	Traveller
Secondary Actor:	None
Preconditions:	None
Postconditions:	The traveller has obtained relevant information about available accommodations.
Main Success Scenario:	1. Traveler navigates to the accommodation search section. 2. Traveler enters search criteria (accommodation type, location, dates, etc.). 3. System retrieves relevant accommodation information based on the search criteria. 4. System displays the available accommodations to the traveler.
Extensions:	None

| Use Case Name:	Local Attractions
Created By:	Traveller
Description:	Allows a traveller to search for local attractions at their destination.
Primary Actor:	Traveller
Secondary Actor:	None
Preconditions:	None
Postconditions:	The traveller has obtained relevant information about local attractions.
Main Success Scenario:	1. Traveler navigates to the local attractions search section. 2. Traveler enters search criteria (attraction type, location, etc.). 3. System retrieves relevant local attraction information based on the search criteria. 4. System displays the available local attractions to the traveler.
Extensions:	None

Registration Sequence Diagram
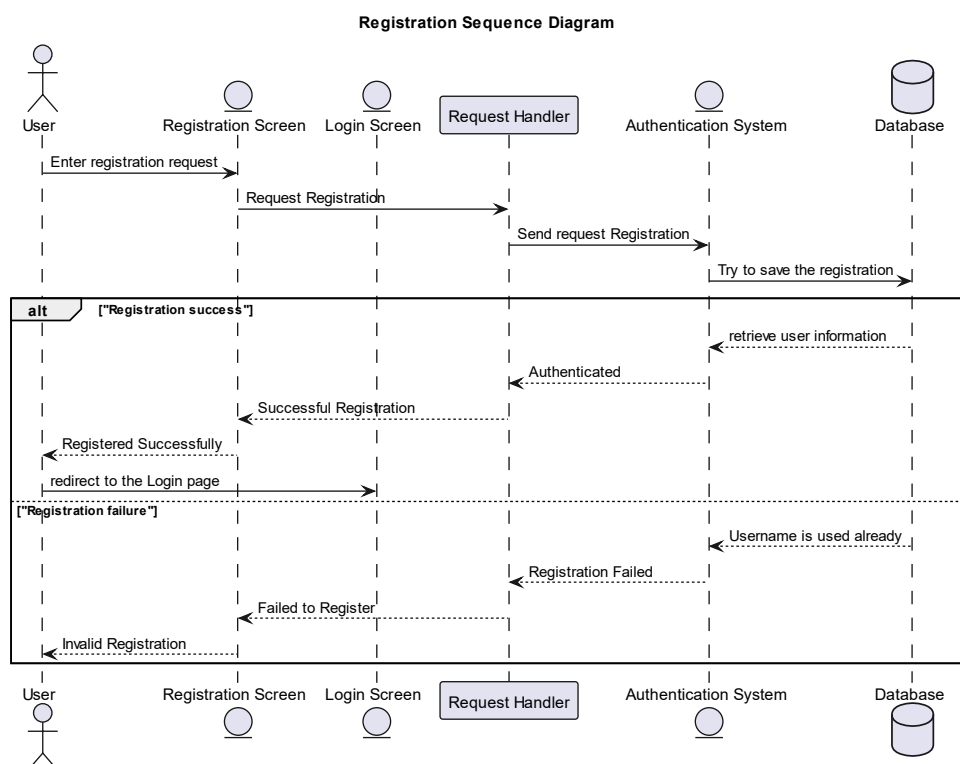
Figure 11 Registration Sequence Diagram.

Login Sequence Diagram
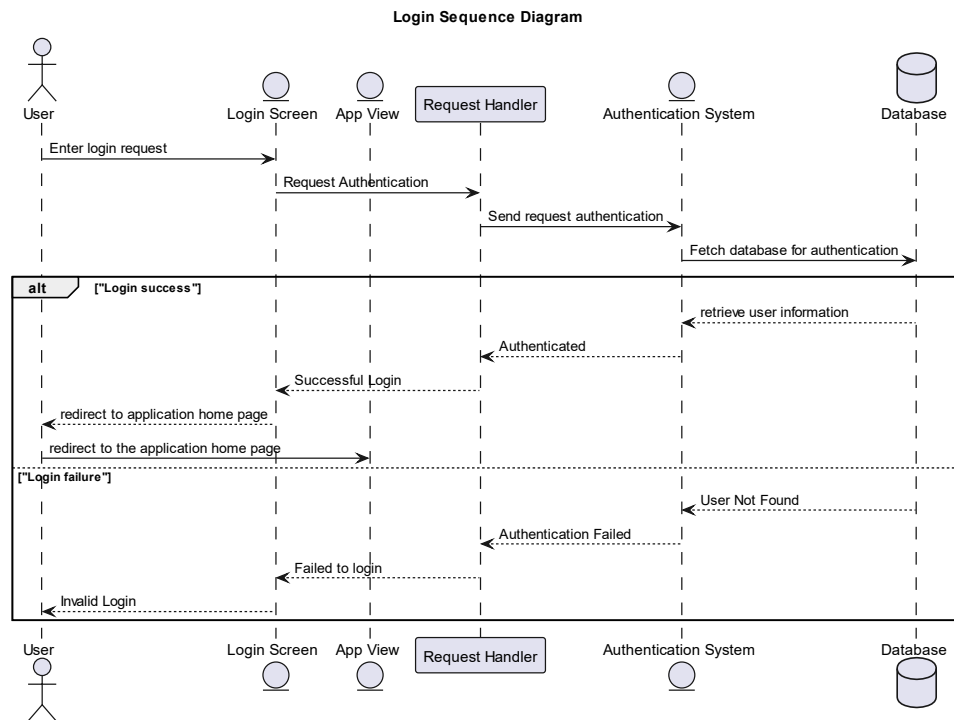
Figure 12 Login Sequence Diagram.
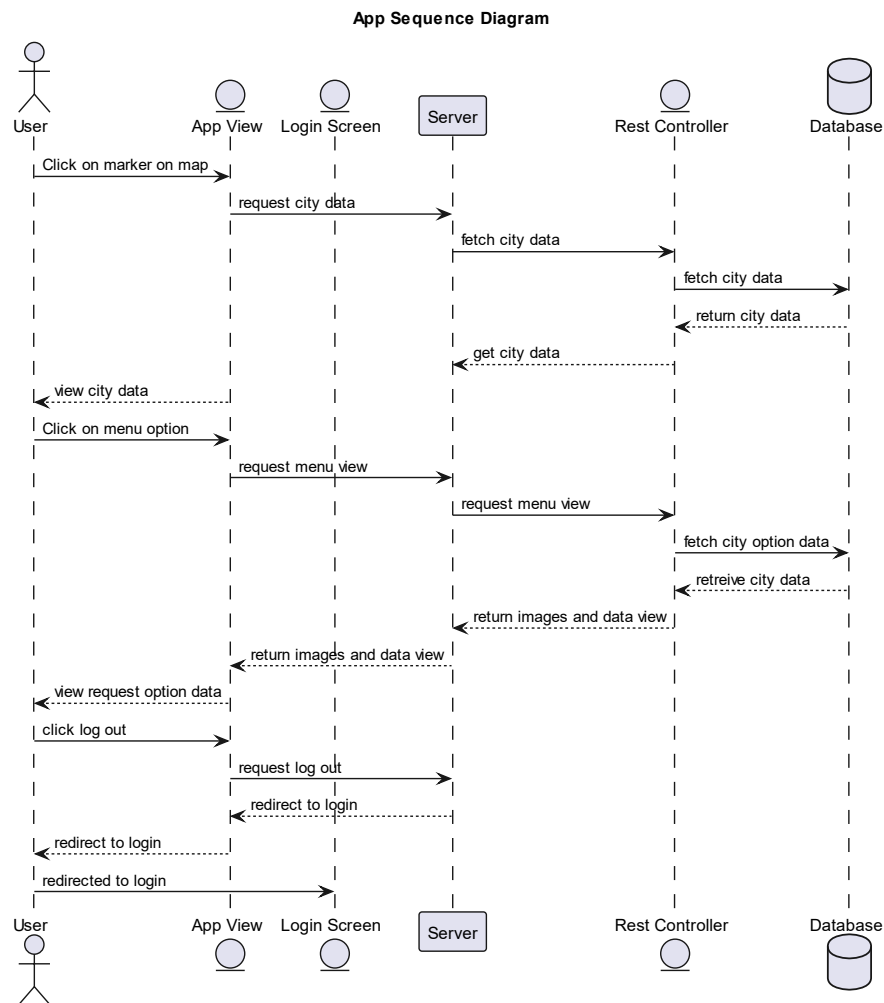
App Sequence Diagram

Figure 13 App Sequence Diagram.
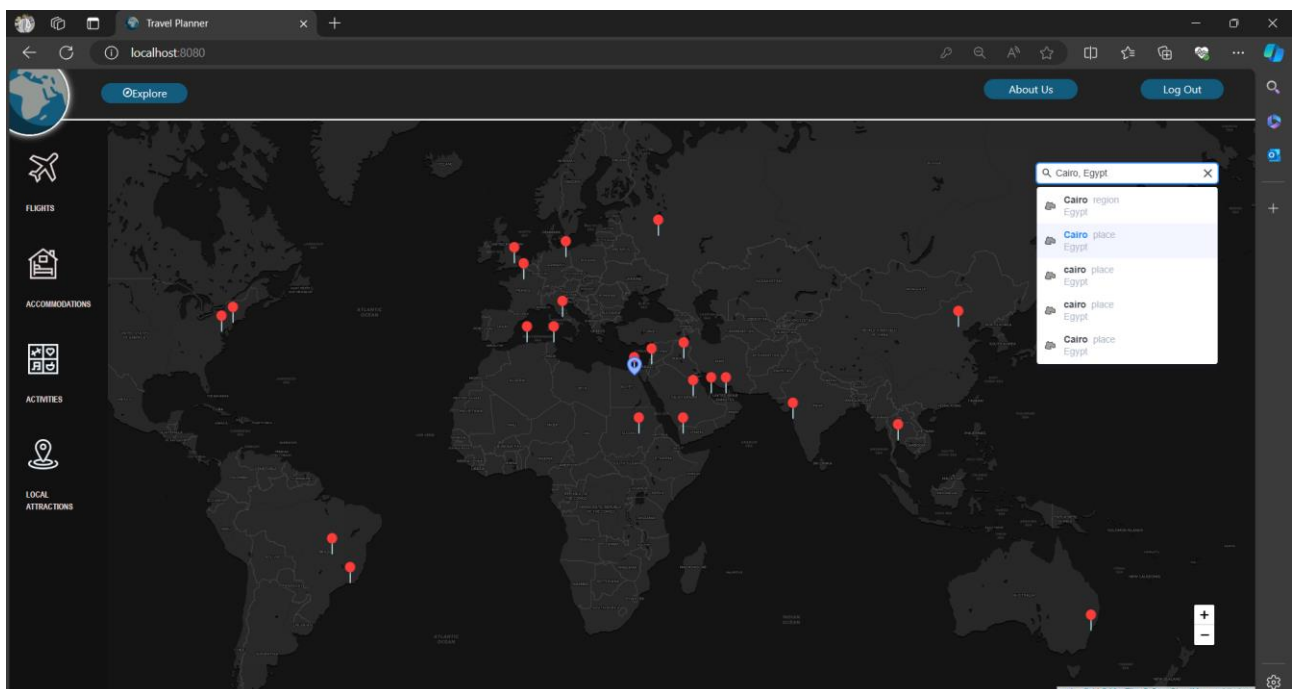
SAMPLE OF GUI

Figure 14 Sample of home page.
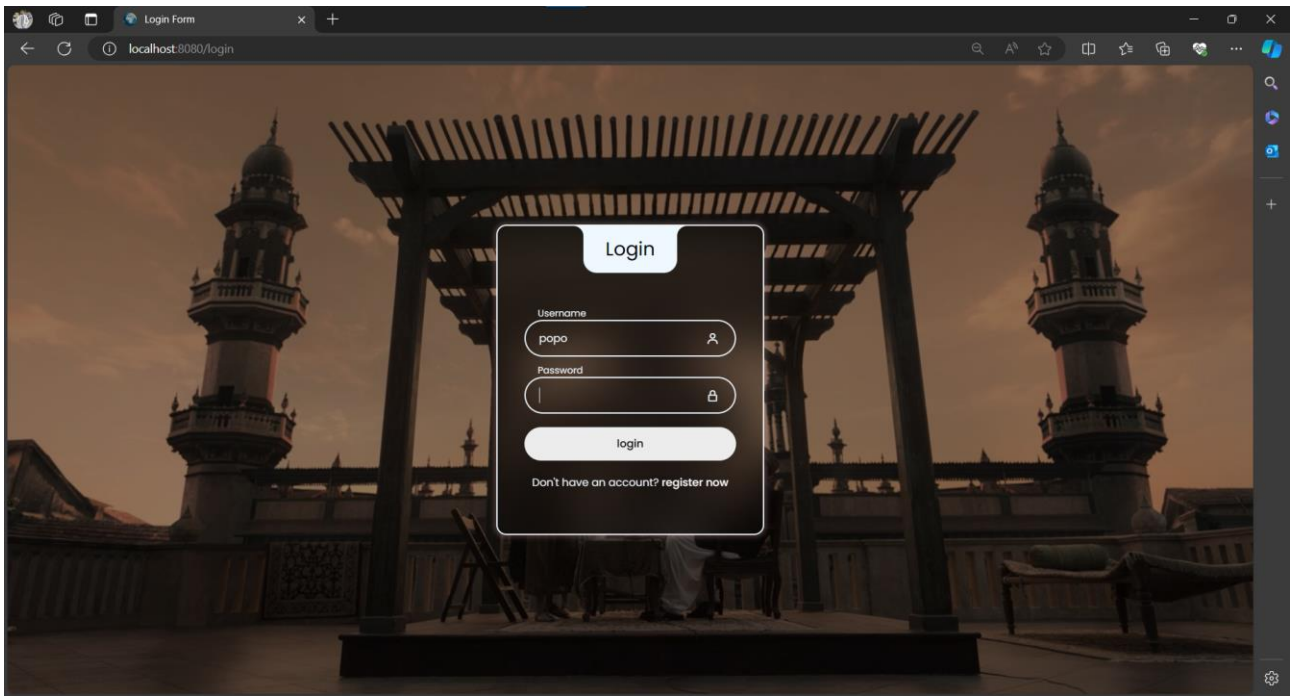
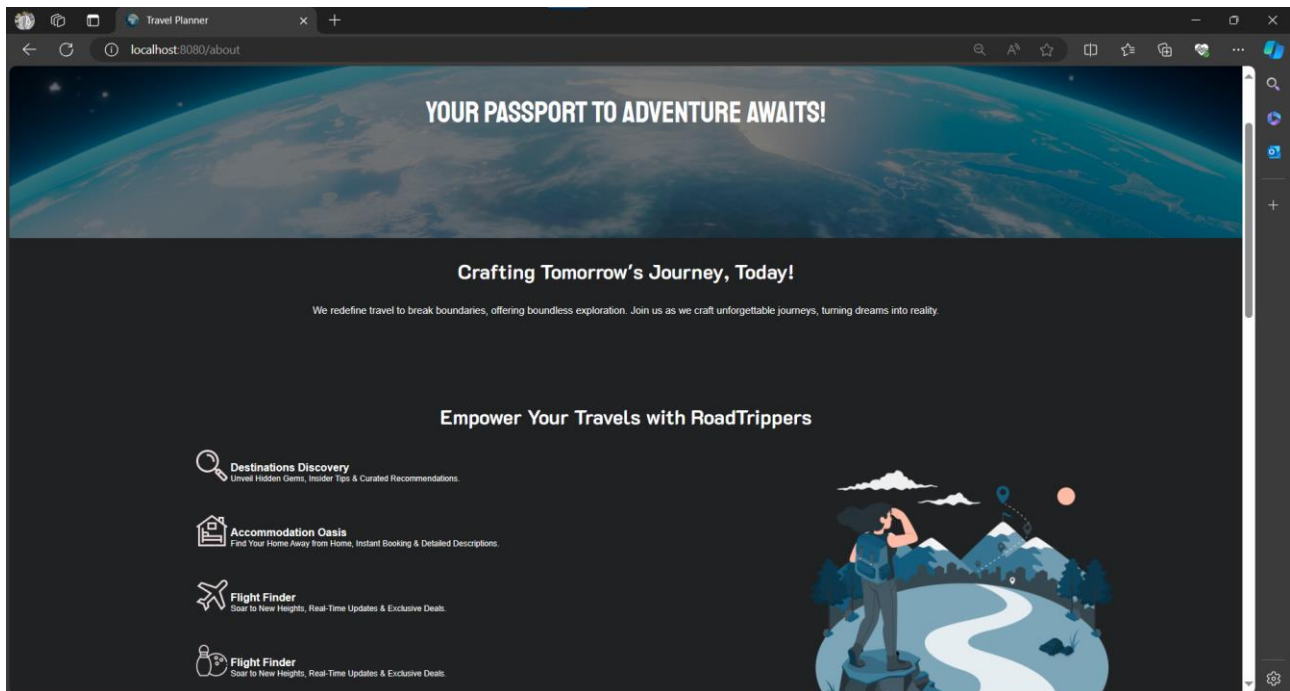*Figure 15 Login Page*
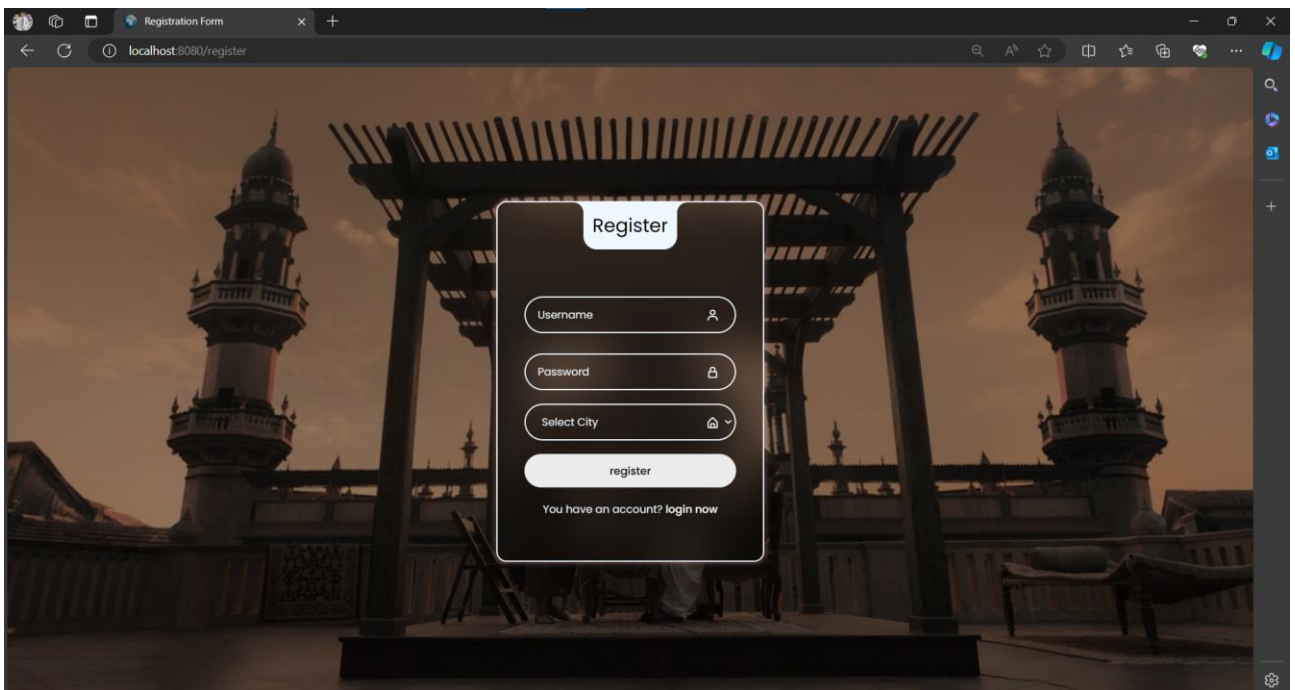
Figure 16 Register Page

Figure 17 Sample of about us page.

GITHUB REPO

https://github.com/AhmedBakrXI/Traveller-Planner

HOW TO RUN

You must install maven, navigate to the directory of the project then open the terminal and type:

```
mvn spring-boot:run
```

You can also open traveller-planner.onrender.com to view the app.