

## Project ID: Explore Makkah with [بَكَّة-**Bakkah**]

### Team members:

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## **Brief Description:**

A complete website that includes a tourist experience for visitors to Makkah Al-Mukaramah, including hotel, restaurants, and events reservations, exploring about cafes, and landmarks in Makkah and its goal is to solve the problem of difficulty in identifying places in Makkah and collecting all places in one place, as visitors search through multiple platforms, which wastes time and complicates planning their trips.

## **Stakeholders:**

visitors  
Hotels  
Restaurants  
Events Organizers

## **Business Requirements:**

The system will help tourists explore Makkah Al-Mukarramah efficiently by:

### **1. Reservations for Hotels and Restaurants:**

Enable users to look up, assess, and reserve hotels and restaurants with secure payment methods and real-time availability.

### **2. Exploring Landmarks and Cafes:**

Using an interactive map for convenient navigation, provide information about historical sites, cafes, and landmarks.

### **3. Event Listings and Tickets:**

Show events with reservations and alerts for well-attended events.

### **4. Customised Itinerary:**

Provide customers with the option to create and store personalised itineraries that include suggestions based on their interests.

### **5. Reviews and Ratings:**

Provides users with the ability to evaluate and review locations, showcasing the best choices.

### **6. Multi-Language Support:**

Arabic and English are among the languages supported.

### **7. Real-Time Updates:**

Give real-time information on events, availability, and reservations.

### **8. User-Friendly Design:**

Make sure the interface is simple to use.

## Users Interviews:

### Users information:

#### User 1

**Name:** Lana Badi Al-Badi.  
**Email:** [albadilana@gmail.com](mailto:albadilana@gmail.com)  
**Mobile:** 053 351 7868

#### User 2

**Name:** Lamar Badi Al-Badi.  
**Email:** albadilamar@gmail.com  
**Mobile:** 055 096 6705

### Q1. Have you ever visited Makkah Al-Mukarramah before? If yes, what was your experience like?

**User1:** My experience in makkah was wonderful, the community, the places & the people are so welcoming.

**User2:** yes I have, Makkah is a city that moves your heart in ways you can't easily describe. There's a deep, emotional connection to the place, where each prayer feels more meaningful, and each step closer to the Kaaba brings a sense of humility and gratitude. The sense of awe when I first saw the Kaaba will stay with me forever.

### Q2.What was the most challenging part of planning your trip to Makkah?

**User1:** Finding places to go since there are so many places.

**User2:** Finding a good hotel since there is many options available.

### Q3.How did you gather information about hotels, restaurants, cafes, landmarks, or events in Makkah?

**User1:** From social media apps and relatives.

**User2:** I looked at several places while planning to see what is the most suitable and comfortable place to stay, asked some relatives about cafes and restaurants.

### Q4. Did you find it easy to plan your trip? If not, why?

**User1:** Mostly it was easy but some parts were hard like finding a good restaurant.

**User2:** yes it was easy to plan it since Makkah is a nice city.

### Q5. Would you prefer if the website provided recommendations for hotels based on proximity to key landmarks and cafes and restaurants ?

**User1:** yes.

**User2:** yes maybe landmarks restaurants and a place to stay since some people don't really know Makkah as much.

### Q6.How do you choose restaurants or cafes in a new city?

**User1:** See what is the most well known and rated amongst the city.

**User2:** I search on social media what people recommend and see the rating of the restaurant.

### Q7.Do you prefer using a single platform for all your travel needs (hotels, restaurants, landmarks, and events)? Why or why not?

**User1:** Yes so it can be more organized and accessible.

**User2:** Yes, it's much easier to use one platform instead of more than one so it can provide me all the information at once without me needing to open another platform.

**Q8. What type of information would you like to see for each place (reviews, photos, location, opening hours)?**

**User1:** I'd like to see the reviews photos location opening hours.

**User2:** Maybe location and provide clear photos of the places prices can also be a nice addition.

## **Interview 2(Restaurant)**

**Info\**

**Email:** [seeneez@info.com](mailto:seeneez@info.com)

**Number:**053 605 5855

**1.What are the most popular dishes among visitors? Do you have any special recommendations for tourists exploring Mecca?**

Popular dishes include grilled meats, salmon, Chicken Cordon Bleu, Chicken Nachos, and Ribeye Steak. We recommend respecting local culture and visiting key landmarks in Mecca.

**2.What unique experiences or services does your restaurant offer that set it apart from other restaurants in Mecca?**

Seeneez offers a diverse menu with Western, Middle Eastern, and Asian dishes. We have private family rooms for groups of 4 to 50 people and no music unless requested.

**3.How do you handle large groups, families, or special events? Do you offer any packages or discounts for groups?**

We provide private rooms, open buffets, and customized meals for large groups. We also offer discounts for the healthcare sector and organize special events like graduations.

**4.Are there peak times or certain seasons when tourists visit your restaurant more frequently? How do you manage high demand during these times?**

Peak times include weekends, holidays, and the Hajj and Umrah seasons. We manage demand with advance reservations, open buffets, and a simplified menu.

**5.Do you collaborate with local hotels, travel agencies, or tourism platforms to attract visitors? If not, are you open to partnerships?**

Yes, we collaborate with travel agencies and promote our restaurant on Google Maps. We're open to more partnerships with tourism platforms.

**6.How do you ensure your menu caters to diverse dietary needs, including those of international tourists?**

Our menu offers a variety of dishes to cater to different tastes, including Western, Asian, and Middle Eastern options.

**7.What cultural or religious considerations do you prioritize, such as halal certification, designated seating areas, or prayer spaces?**

We have private rooms, a prayer space, and ensure all products meet halal standards as required by the Holy Capital.

**8.What challenges do you think tourists face when trying to find or access restaurants in Mecca? How does your restaurant contribute to addressing these issues?**

Tourists face language barriers and traffic congestion. We promote our restaurant on Google Maps and make it easy to contact us via phone or WhatsApp.

**9.What tools or platforms do you use for reservations and receiving customer feedback?**

**How can tourists easily discover or contact your restaurant?**

We use phone, WhatsApp, and Google Maps for reservations and feedback. Tourists can discover us through these platforms and social media.

**10.What are your future plans or expansions to improve the visitor experience in Mecca?**

We plan to enhance our services and explore new technologies to improve the dining experience for visitors in Mecca.

**11.Do you currently have a website or an online platform for reservations? If not, are you willing to collaborate with a platform focused on hotel, restaurant, and tourism bookings in Mecca?**

We don't have a website for reservations but are open to collaborating.

**Type of Software:**

-Interactive transaction system.

## **Functional requirements:**

### **1- The user shall be able to create an account.**

- 1.1 The system shall allow users to create a new account by entering the full name, email, phone number, password.
- 1.2 The system shall ensure the validity of data such as (the international code of the number, email format, password strength).
- 1.3 The system shall check the database to ensure the email before creating the account.
  - 1.3.1 If email is used, error message will appear “email is already used”.
  - 1.3.2 If email is not used, account creation successfully.
- 1.4 The system shall send a link to the user email to activate the account.
- 1.5 The system shall save the data entered in database.

### **2- The user shall be able to log in using email and password.**

- 2.1 The system shall allow the user to log in using email and password.
- 2.2 The system shall verify the user log in information
  - 2.2.1 If it is registered in the database, it will log in successfully.
  - 2.2.2 If it is not registered in the database, error message will appear “account doesn’t exist”.
- 2.3 The system shall allow the user to recover the password through “Forgot Password” in case of forgetting it.
- 2.4 The system shall update the password if it is modified.

### **3- The user shall be able to view and edit their profile information.**

- 3.1 The system shall retrieve and display the user’s personal information, including full name, phone number, email.
- 3.2 The system shall allow the user to update their information.
- 3.3 The system shall save user modifications in the database and send notifications in their email.

### **4- The user shall be able to explore available options.**

- 4.1. The system shall retrieve and display the available options from the database, such as hotels, restaurants, cafes, and landmarks.
- 4.2. The system shall to filter options by category.
- 4.3. The system shall allow users to search for specific options using keywords.
- 4.4. The system shall allow the user to display the most visited or highly rated places in Makkah.
- 4.5. The system shall provide a brief description of each place, display photos, ratings and reviews, prices.

## **5- The user shall be able to view an interactive map:**

- 5.1 The system shall integrate location data (longitude, latitude) from the database to display nearby services on a Google Map.
- 5.2 The system shall calculate and display the estimated time and distance between the user's current location and nearby services, using data retrieved from Google Maps.

## **6- The user shall be able to book services.**

- 6.1 The system shall allow the user to choose a service type (hotel, cafe, landmark, or restaurant).
- 6.2 If the user selects a hotel, the system shall redirect the user to an external platform (e.g., Booking.com) for hotel bookings.
- 6.3 If the user selects a cafe, the system shall display a list of the best cafes nearby based on the user's location.
- 6.4 If the user selects a restaurant, the system shall display a list of the best restaurants in the city, and the user shall be able to make a reservation directly within the system.
- 6.5 Booking details for hotels, restaurants, and events shall be stored in the database for user reference.
- 6.6 The system shall allow users to reserve tables at restaurants directly within the platform and save the reservation details in the database.
- 6.7 The system shall process event ticket bookings, save the details in the database, and update the availability status accordingly.

## **7- The user shall be able to create a travel itinerary.**

- 7.1 The system shall allow the user to create a travel itinerary by selecting services (e.g., hotels, restaurants, landmarks, events) they wish to include.
- 7.2 The system shall allow the user to add selected services to their itinerary.
- 7.3 Itinerary data, including selected services, user preferences, and timestamps, shall be stored, saved in the database.
- 7.4 The system shall send reminders to the user for planned bookings or events based on the scheduled dates stored in the database.

## **8- The user shall be able to add reviews and ratings.**

- 8.1. The system shall allow the user to submit a rating for a service, and the system shall store the rating in the database, associating it with the respective service.
- 8.2. User reviews shall be saved in the database, along with the User ID and Timestamp, for tracking and reference.
- 8.3. The system shall query the database to retrieve and display all reviews and ratings for a specific service.

**9- The user shall be able to switch between Arabic and English.**

- 9.1. The system shall display an option for the user to choose their preferred language (Arabic or English).
- 9.2. If the user selects Arabic, the system shall switch the interface language to Arabic.
- 9.3. If the user selects English, the system shall switch the interface language to English.
- 9.4. The system shall save the user's language preference in the database for future sessions.

**10- The user shall receive real-time updates.**

- 10.1 Notifications regarding changes or cancellations shall be retrieved from the database and stored for user reference.
- 10.2 Promotional offers shall be sent to the user based on their preferences stored in the database.



## **Non-Functional requirements:**

### **1.Response Time:**

- All actions, such as account creation, login, profile updates, and booking services, shall not take more than 3 seconds to complete under normal usage conditions.

### **2.Throughput:**

- The system shall handle up to 1,000 concurrent users during peak times without performance degradation.

### **3.Reliability:**

- The system shall have 99.9% uptime and shall not experience more than 1 hour of downtime per month, including maintenance.

### **4.Failure Rate:**

- The system shall not be down for more than 5 minutes per month due to unexpected errors.

### **5.Security:**

- The system must implement secure authentication (hashed passwords and encrypted communication) to protect user data.
- The system must comply with Saudi Data and Artificial Intelligence Authority (SDAIA) or other applicable data protection regulations to ensure user privacy.

### **6.Authorization:**

- Only authorized users shall have access to sensitive data, such as employee emails or booking details.
- Permissions to view, modify, or delete data shall be assigned based on user roles (Admin, User).

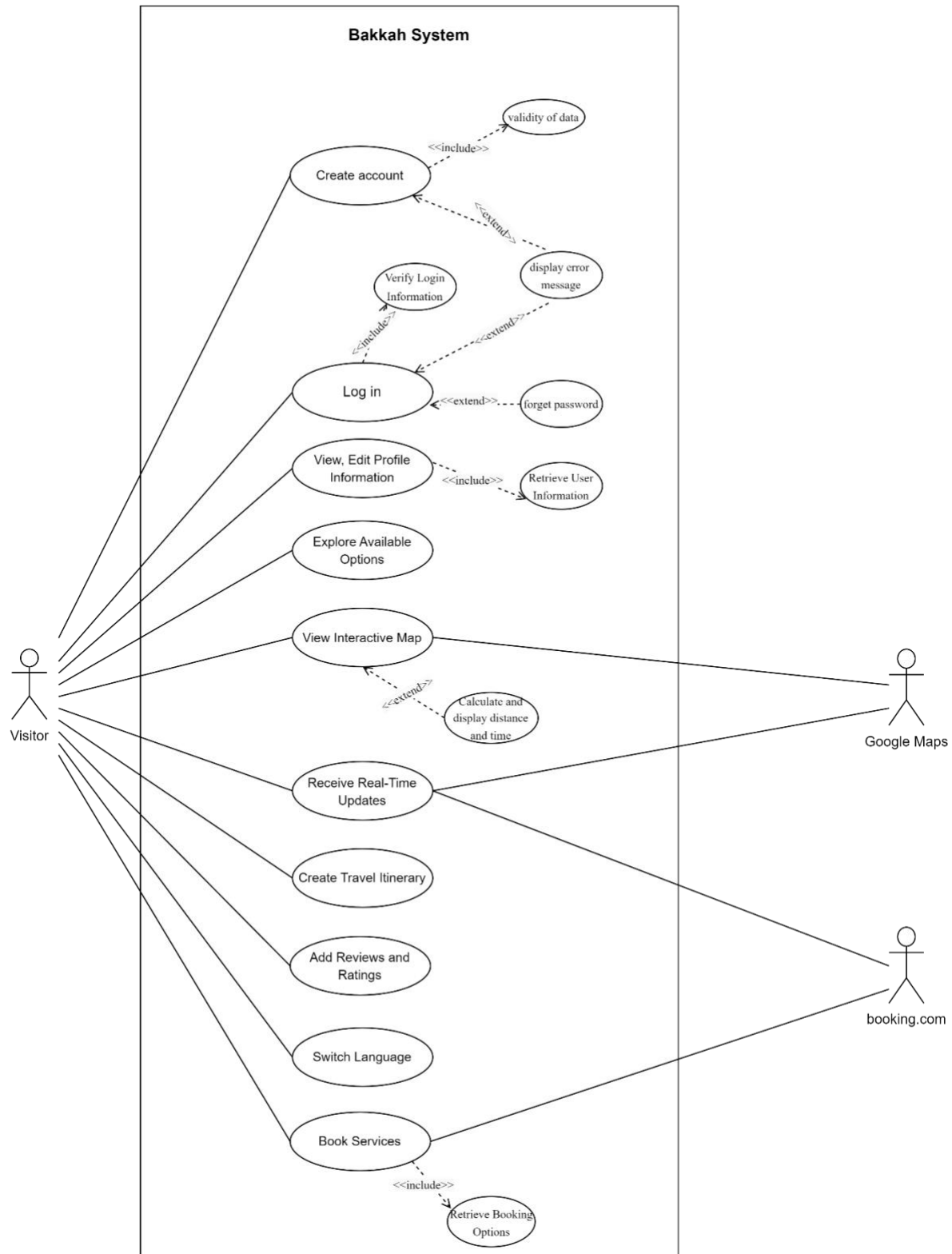
### **7.Internationalization:**

- The system shall fully support Arabic and English languages, ensuring proper text alignment (Right-to-Left for Arabic and Left-to-Right for English).

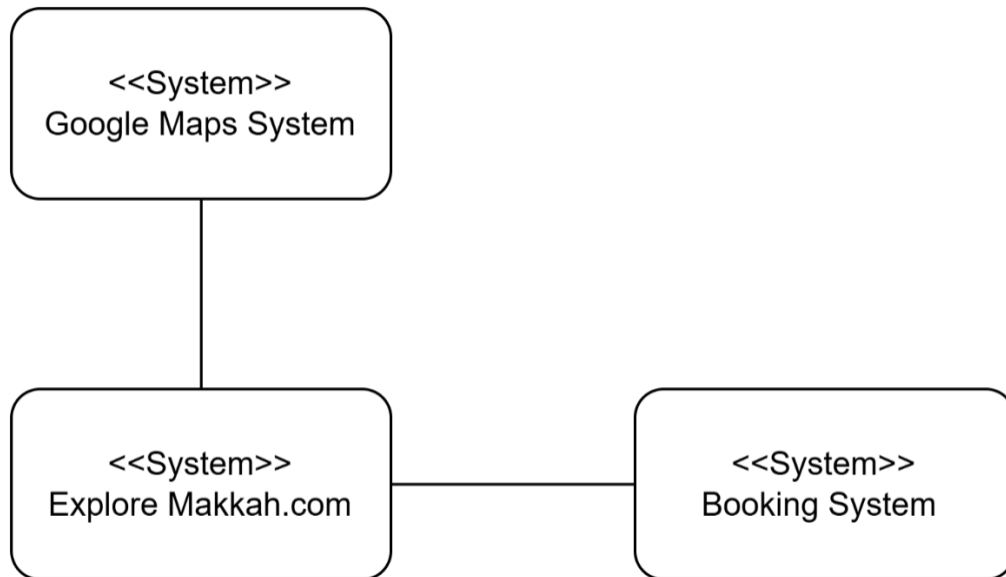
### **8.Availability:**

- The system shall be accessible 24/7 with redundancy in place to avoid service interruptions.

## Use Case Diagram



## Context Diagram



## Use Case Scenario:

Create an Account	
Actors	visitors
Description	<p>1.1 The system shall allow users to create a new account by entering the full name, email, phone number, password.</p> <p>1.2 The system shall ensure the validity of data such as (the international code of the number, email format, password strength).</p> <p>1.3 The system shall check the database to ensure the email before creating the account.</p> <p>1.3.1 If email is used, error message will appear “email is already used”.</p> <p>1.3.2 If email is not used, account creation successfully.</p> <p>1.4 The system shall send a link to the user email to activate the account.</p> <p>1.5 The system shall save the data entered in database.</p>
Data	Full name, Email, Phone number, Password, International code.
Stimulus	The user clicks on the Create Account button.
Response	Verify the validity of the data, send a link, save the account, then move to the main page interface.

Log in	
Actors	visitors
Description	<p>2.1 The system shall allow the user to log in using email and password.</p> <p>2.2 The system shall verify the user log in information</p> <p>2.2.1 If it is registered in the database, it will log in successfully.</p> <p>2.2.2 If it is not registered in the database, error message will appear “account doesn’t exist”.</p> <p>2.3 The system shall allow the user to recover the password through “Forgot Password” in case of forgetting it.</p> <p>2.4 The system shall update the password if it is modified.</p>
Data	Email, Password.
Stimulus	The user clicks on Log in button.
Response	Move to the main page interface.

View, Edit Profile Information	
Actors	visitors
Description	<p>3.1 The system shall retrieve and display the user's personal information, including full name, phone number, email.</p> <p>3.2 The system shall allow the user to update their information.</p> <p>3.3 The system shall save user modifications in the database and send notifications in their email.</p>
Data	Full name, Phone number, Email, Notifications details.
Stimulus	<ul style="list-style-type: none"> <li>- The user clicks on profile button.</li> <li>- The user clicks on edit profile button.</li> </ul>
Response	<ul style="list-style-type: none"> <li>- Retrieve the user profile data.</li> <li>- Save modifications and send a notification.</li> </ul>

Explore Available Options	
Actors	visitors
Description	<p>4.1.The system shall retrieve and display the available options from the database, such as hotels, restaurants, cafes, and landmarks.</p> <p>4.2.The system shall to filter options by category.</p> <p>4.3.The system shall allow users to search for specific options using keywords.</p> <p>4.4.The system shall allow the user to display the most visited or highly rated places in Makkah.</p> <p>4.5.The system shall provide a brief description of each place, display photos, ratings and reviews, prices.</p>
Data	Most visited or highly rated data, brief description of each place, display photos, ratings and reviews, prices.
Stimulus	- The user click Explore Available Options button.
Response	- Show Available Options.

View an Interactive Map	
Actors	visitors
Description	<p>5.1 The system shall integrate location data (longitude, latitude) from the database to display nearby services on a Google Map.</p> <p>5.2 The system shall calculate and display the estimated time and distance between the user's current location and nearby services, using data retrieved from Google Maps.</p>
Data	User's location. The estimated time and distance, and data retrieved from Google Maps.
Stimulus	The user click on view Interactive Map button.
Response	Show the nearby locations using Google Maps with distance and time.

Book Services	
Actors	visitors
Description	<p>6.1 The system shall allow the user to choose a service type (hotel, cafe, landmark, or restaurant).</p> <p>6.2 If the user selects a hotel, the system shall redirect the user to an external platform (e.g., Booking.com) for hotel bookings.</p> <p>6.3 If the user selects a cafe, the system shall display a list of the best cafes nearby based on the user's location.</p> <p>6.4 If the user selects a restaurant, the system shall display a list of the best restaurants in the city, and the user shall be able to make a reservation directly within the system.</p> <p>6.5 Booking details for hotels, restaurants, and events shall be stored in the database for user reference.</p> <p>6.6 The system shall allow users to reserve tables at restaurants directly within the platform and save the reservation details in the database.</p> <p>6.7 The system shall process event ticket bookings, save the details in the database, and update the availability status accordingly.</p>
Data	service type. Booking details for hotels, restaurants, and events, reserve tables and save the reservation details.
Stimulus	<p>-User selects a service type (hotel, cafe, restaurant, or event).</p> <p>-User confirms a booking request for a specific service.</p>
Response	<p>-The system redirects the user to an external platform (e.g., Booking.com) for hotel bookings.</p> <p>-For cafes and restaurants, the system displays a list of top options based on the user's location or city.</p> <p>-The system processes restaurant reservations or event bookings, stores the booking details in the database, and updates availability.</p>

Create a Travel Itinerary	
Actors	visitors
Description	<p>7.1 The system shall allow the user to create a travel itinerary by selecting services (e.g., hotels, restaurants, landmarks, events) they wish to include.</p> <p>7.2 The system shall allow the user to add selected services to their itinerary.</p> <p>7.3 Itinerary data, including selected services, user preferences, and timestamps, shall be stored, saved in the database.</p> <p>7.4 The system shall send reminders to the user for planned bookings or events based on the scheduled dates stored in the database.</p>
Data	selecting services. Itinerary data. Reminders for bookings or events based on dates.
Stimulus	<p>-User selects services (e.g., hotels, restaurants, landmarks, events) to include in the itinerary.</p> <p>-User adds a selected service to their travel plan.</p>
Response	<p>-The system stores the itinerary details in the database, including selected services and preferences.</p> <p>-Sends reminders to the user for scheduled bookings or events based on the itinerary.</p>

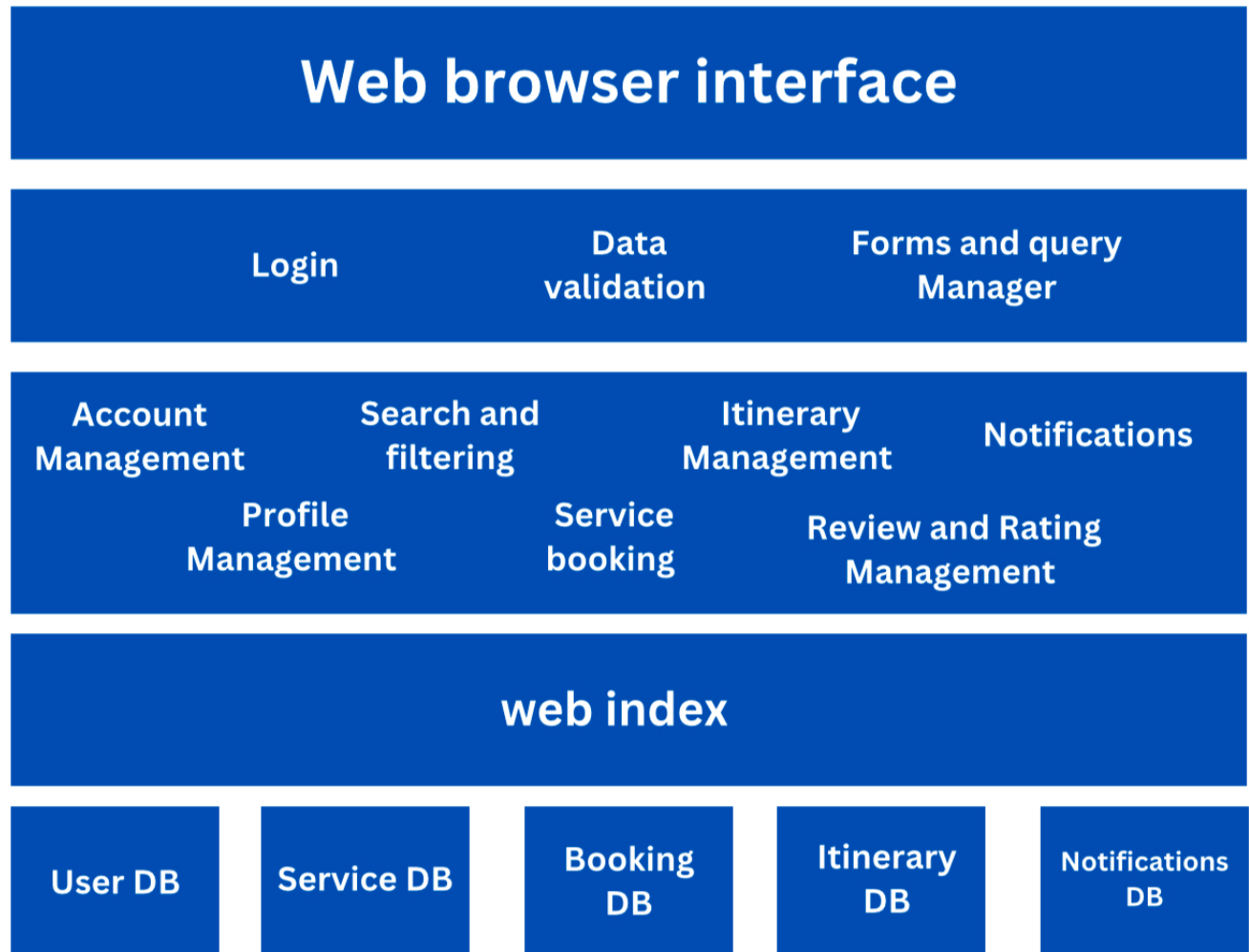
Add Reviews and Ratings	
Actors	visitors
Description	<p>8.1.The system shall allow the user to submit a rating for a service, and the system shall store the rating in the database, associating it with the respective service.</p> <p>8.2.User reviews shall be saved in the database, along with the User ID and Timestamp, for tracking and reference.</p> <p>8.3.The system shall query the database to retrieve and display all reviews and ratings for a specific service.</p>
Data	User rating and reviews, User ID and Timestamp.
Stimulus	<p>-User submits a review or rating for a service.</p> <p>-User requests to view all reviews and ratings for a specific service.</p>
Response	<p>-The system stores the review and rating in the database, linked to the service and user ID.</p> <p>-The system retrieves and displays reviews and ratings for the requested service.</p>

Switch between Arabic and English	
Actors	visitors
Description	<p>9.1.The system shall display an option for the user to choose their preferred language (Arabic or English).</p> <p>9.2.If the user selects Arabic, the system shall switch the interface language to Arabic.</p> <p>9.3.If the user selects English, the system shall switch the interface language to English.</p> <p>9.4.The system shall save the user's language preference in the database for future sessions.</p>
Data	preferred language (Arabic or English).
Stimulus	User selects a preferred language (Arabic or English) from the language options.
Response	<p>-The system updates the interface language based on the user's selection.</p> <p>-Saves the language preference in the database for future sessions.</p>

Receive Real-Time Updates	
Actors	visitors
Description	<p>10.1Notifications regarding changes or cancellations shall be retrieved from the database and stored for user reference.</p> <p>10.2 Promotional offers shall be sent to the user based on their preferences stored in the database.</p>
Data	Notifications. Promotional offers.
Stimulus	<p>-The system detects changes or cancellations for bookings.</p> <p>- The system identifies promotional offers based on user preferences.</p>
Response	<p>-Notifications regarding changes, cancellations, or offers are displayed to the user.</p> <p>-Stores notifications in the database for user reference.</p>



## Layered Diagram



## Repository Diagram



## MEETING MINUTES

Name	Date and time
Retaj-Rania-Lina	11/12/2024 1:38 -on WhatsUp
Retaj-Rania-Lina	13/12/2024 4:30 -on Zoom
Retaj-Rania-Lina	26/12/2024 3:23 -on WhatsUp
Retaj-Rania-Lina	28/12/2024 6:00 -on Zoom
Retaj-Rania-Lina	1/1/2025 9:52 -on WhatsUp
Retaj-Rania-Lina	2/1/2025 5:00 -on Zoom
Retaj-Rania-Lina	17/1/2025 4:30-on WhatsUp

## TASK TABLE

Task	Retaj	Rania	Lina
Brief Description, Stakeholders		✓	
Business requirements, Software type	✓		
Interviews	✓		✓
The first 5 functional requirements		✓	
The last 5 functional requirements			✓
The non- Functional requirements	✓		
Use Case Diagram	✓	✓	
Context Diagram		✓	
The First 5 Use Case Scenario		✓	
The Last 5 Use Case Scenario			✓
Layered Diagram	✓		
Repository Diagram			✓