



CESW-223

SECTION: IT

Manasik Trip

PRESENTATION



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The Manasik Trip is a mobile app designed to simplify and organize the Umrah experience. It addresses challenges such as navigation, round tracking, and logistics by offering features like accurate tracking for Tawaf and Sa'i, real-time crowd updates, interactive maps, transport schedules, permit management, and spiritual resources like imam schedules and lecture notifications. The app helps reduce stress and confusion, enabling users to focus on their spiritual journey. It's a modern solution to enhance the Umrah experience.

The interviews summary:

Booking and performing Umrah can be quite challenging, especially with issues like limited permit availability, high hotel prices, and heavy crowds during busy times like Ramadan. Finding out which Imam is leading the prayer can also be difficult, and navigating the Holy Mosque can be confusing, particularly when entrances and exits are crowded or closed. An app that offers real-time train and bus schedules, clear maps of the mosque, an emergency button for elderly, and updates on crowd levels would make a big difference. Features for managing permits, customizing donations, and receiving notifications about Islamic lectures would not only simplify the process but also enrich the spiritual experience.

Essential Functionalities:

1. Tawaf and Sa'i

The app tracks the number of Tawaf around the Kaaba and helps count the Sa'i rounds between Safa and Marwa.



2. Imam Timings

The app shows the names of the Imams leading the prayers on the day you plan to perform Umrah.

3. Zamzam Water

You can order Zamzam water through the app to be delivered to your home.

4. Prayers and Sunnah's

The app displays Recommended prayers and Sunnah.

5. Donations

Options to provide sustenance for pilgrims in their journey appear

6. Electric cars

The app provides a guide to the locations of electric carts within the Haram.

7. Haram map.

The app includes a map showing the entrances and exits of the Haram.

8. Train ticket.

The app allows you to link your train ticket to Mecca with the Haramain train system.

9. Bus timings.

The app displays the bus schedules that transport pilgrims from the Haram to the train station.

10- Permits

The app allows you to display your Umrah or Rawdah

permit by connecting with the Tawakkalna app.

Requirements:

1-Functional Requirements

FR1: The system shall enable users to search and filter information within selected categories.

FR2: The system shall present the retrieved information in a clear and user-friendly format.

FR3: The system shall accurately retrieve and display information for the selected category.

FR4: The system shall verify the validity of the train ticket before completing the linking process.

FR5: The system shall allow the user to automatically synchronize trip information after linking the ticket.

FR6: The system shall send a confirmation message to the user once the train ticket linking process is successfully completed.

FR7: The system shall enable the user to request an electric cart for pickup.

FR8: The system shall enable the user to search for and view the nearest available electric carts.

FR9: The system shall display a detailed route to the selected electric cart based on the user's current location.

FR10: The system shall allow the pilgrim to specify the donation amount and choose the required quantity of Zamzam water in a single process.

FR11: The system shall display a summary of the order that includes details of the donation and Zamzam water order before confirming the transaction.

FR12: The system shall send an electronic receipt to the pilgrim that includes details of the donation and Zamzam water order after completing the process.

FR13: The System shall retrieve and display the pilgrims umrah or hajj permit information for the central permit database once the "Display permits info" option is selected.

FR14: The System shall retrieve and display an appropriate error message if the pilgrim permit cannot be retrieved due to network issues, system error, or unavailability of a valid permit.

FR15: The system shall verify whether the user triggering the system update has administrative authority.

Non-functional Requirements

2.1 Performance

NFR1: The system shall deliver requested information in a minimum of 2 seconds and no more than 4 seconds during crowded periods.

NFR2: The System shall retrieve and display the permit information within 3 seconds of the pilgrim requesting it, ensuring a fast and seamless experience.

2.2 Usability

NFR3: The user interface shall be easy to use and simple enough for users of all age groups to understand without requiring training.

NFR4: The system shall provide simple instructions on how to link the ticket.

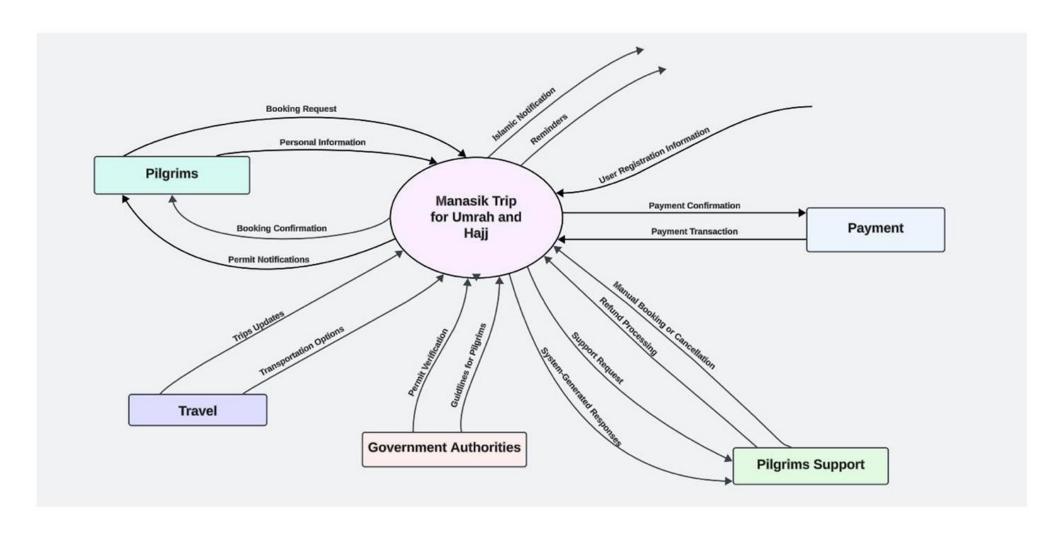
2.3 Availability

NFR5: The system shall maintain 99.9% uptime during the Umrah season and peak times to ensure pilgrims can access donation and Zamzam ordering services at any time.

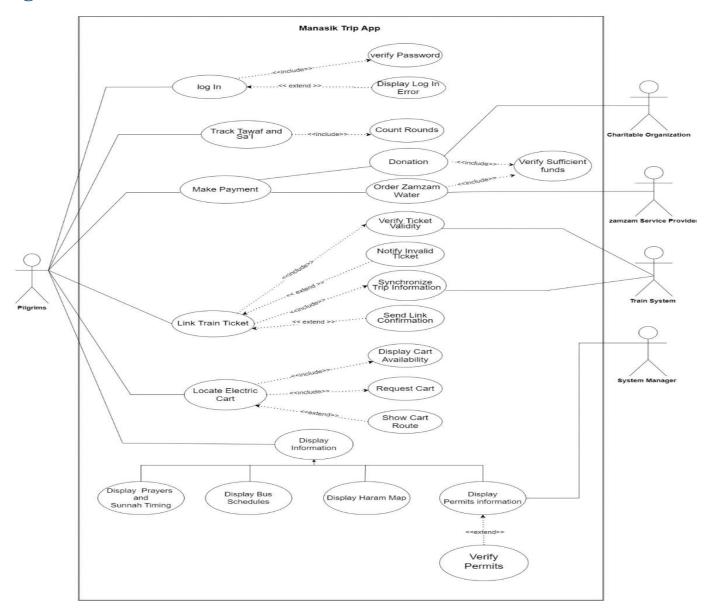
NFR6: The system shall have automatic failover mechanisms in place, allowing for seamless transition to backup servers in case of any hardware or network failures, ensuring continuous availability to users even in case of an outage or technical failure.



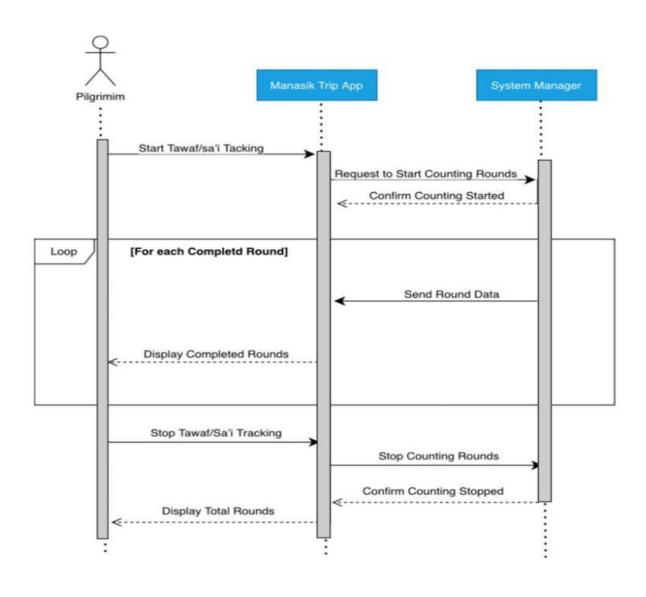
Context Diagram:



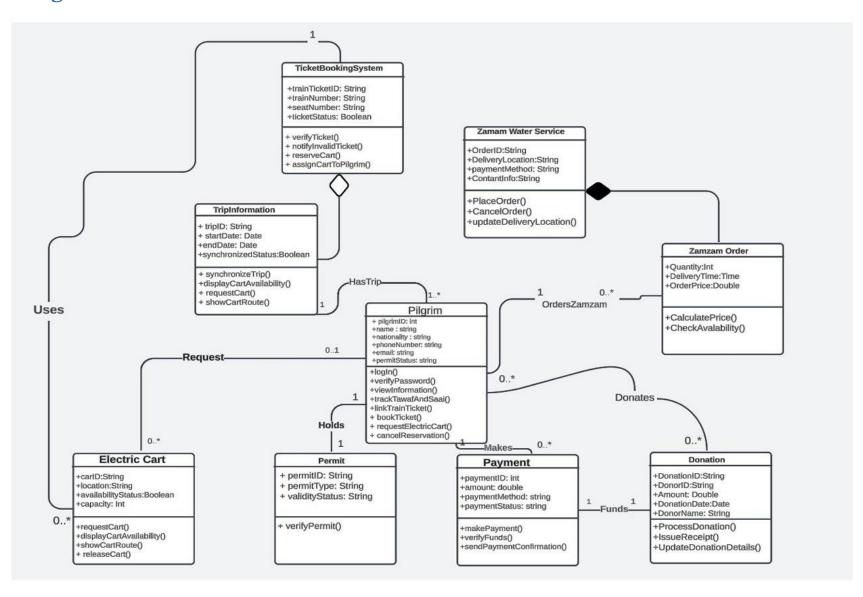
Use case diagram:



One Main Sequence diagram:



Class Diagram:



Conclusion:

Our app brings technology and spiritual needs together. Manasik Trip makes the pilgrimage easier by providing support and guidance. It helps pilgrims focus on their spiritual journey without worrying about small details.

