

Project Report



+ Project Description

Travel Buddy is a tourism database management system developed in C programming language. It is designed to manage tourism-related information such as destinations, tour packages, hotels, and customer bookings. The system provides a comprehensive solution for tourism agencies to streamline their operations, manage bookings, and offer a seamless experience for customers.

+ Objectives

The primary objectives of the Travel Buddy project are:

1. To create a simple, efficient, and easy-to-use database management system for tourism-related data.
2. To allow tourism agencies to manage their data efficiently, including information on destinations, tours, and customers.
3. To enable customers to search and book tours, providing a streamlined booking experience.

+ System design and architecture

The system is designed as a command-line interface (CLI) application. It uses simple data structures and file handling in C to store and manage information. The architecture includes the following components:

- **Data Structures:** The system uses arrays, structs, and linked lists to manage data such as tour packages, hotel information, and customer bookings.
- **File Handling:** The system uses text files to store data persistently. These files serve as the backend storage for the database.
- **Functions and Modules:** The system consists of several functions to handle operations such as adding, editing, deleting, and displaying data.

+ Features and functionality

Travel Buddy provides a range of features to support tourism database management and customer booking operations. These features are divided into user and admin functionalities.

User Features

As a regular user, you have access to the following features:

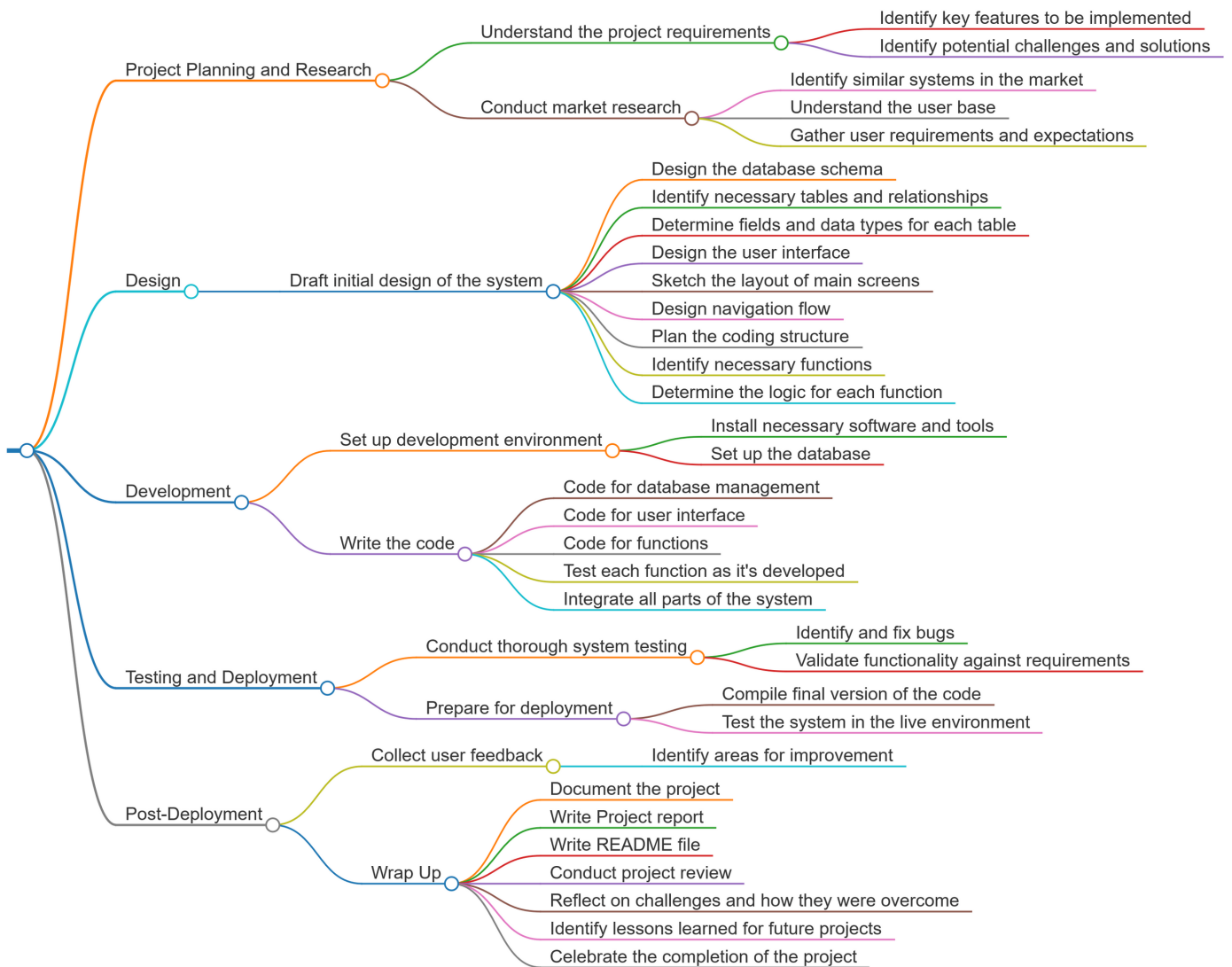
- **View Destinations:** Get a list of all available destinations in the system.
- **View Tour Packages:** View details of tour packages, including cost, duration, and destination.
- **View Hotels:** Access information about hotels in various destinations.
- **View Flights:** See a list of available flights for travel planning.
- **Book Flights or Hotels:** Allows users to book flights and hotels.
- **Provide Feedback:** Users can submit feedback about their travel experience or the system's functionality.
- **Logout:** End the user session.

Admin Features

As an admin, you have additional control and management capabilities, including:

- **Add Destination:** Add new destinations to the system.
- **View All Destinations:** Get a comprehensive list of destinations in the system.
- **Delete a Destination:** Remove existing destinations.
- **Add Flight:** Add new flight information to the system.
- **View All Flights:** List all available flights.
- **Delete a Flight:** Remove specific flights from the system.
- **Add Hotel:** Add new hotel information.
- **View All Hotels:** List all hotels in the system.
- **Delete a Hotel:** Remove specific hotels from the system.
- **Add Package:** Add new tour packages to the system.
- **View All Packages:** View a complete list of available packages.
- **Delete a Package:** Remove existing packages from the system.
- **View Feedback:** Admins can view all customer feedback.
- **View Bookings:** Access customer bookings (currently commented out in code).
- **Logout:** End the admin session.

+ Project progress



+ Limitations an Future Enhancements

1. **Data Integrity:** While the system maintains basic data integrity, it lacks robust validation mechanisms to ensure data accuracy and consistency. This could lead to potential errors or inconsistencies in the database.
2. **User Interface:** The command-line interface is functional but lacks the visual appeal and user-friendliness of graphical interfaces. Future enhancements could include a graphical user interface (GUI).
3. **Backup and Recovery:** The system does not have a comprehensive backup and recovery plan. In the event of data loss or corruption, there is a risk of losing critical information. Implementing regular backups and recovery processes would enhance system reliability.

+ Conclusion

Travel Buddy is a successful implementation of a tourism database management system in C. It provides a comprehensive solution for managing tourism-related information and booking tours. With additional enhancements and scalability improvements, it has the potential to serve as a robust platform for tourism agencies.