

Travel Agency Management System

Objective

The aim of this project is to design and develop a relational database system that helps manage the day-to-day operations of a travel agency. This includes the management of clients, travel packages, transportation bookings (flights, trains, buses, etc.), accommodations, and payment processing. The system will also track reservations, customer feedback, and itinerary generation for seamless travel planning.

Scope of the Project

The system will facilitate the management of multiple travel-related entities, allowing the travel agency to efficiently book and manage trips, handle client inquiries, and offer a seamless experience for customers. It will include functionalities for booking transportation, accommodations, and organizing different types of travel packages (tours, vacations, business trips, etc.).

Key Features

Login and User Authentication

- Allow clients and the agency staff to register in and login.

Client Management

- Maintain a detailed record of clients, including contact information (full name, email, phone number), travel preferences, previous bookings, and feedback.

- Ability to create new client profiles, update existing profiles, and delete inactive clients.

- Track loyalty programs and offer personalized packages based on client history.

Travel Package Management

- Manage various travel packages (e.g., vacation, adventure tours, business trips).

- Include details about the destination, duration, price, and itinerary.

- Assign multiple transportation and accommodation options within a single package.

Transportation Booking

- Manage bookings for various modes of transportation (airplane, train, bus, car rentals).

- Integrate details such as departure and arrival dates, ticket numbers, and seating preferences.

- Track transportation providers and their available services.

Accommodation Booking

- Manage bookings for hotels, hostels, resorts, and other accommodations.

- Include room types, amenities, check-in/check-out dates, and special requests from clients.

- Track available rooms and manage reservations.

Reservation System

Allow clients to look for and to book entire packages or individual services (transportation, accommodation).

Manage real-time availability of transport and accommodation.

Generate booking confirmations.

Include options for reservation modification or cancellation.

Payment Management

Track payment status for bookings (pending, completed, refunded).

Include multiple payment methods (credit card, bank transfer, cash).

Manage client invoices and generate receipts automatically after payment.

Feedback and Reviews

Allow clients to submit reviews for travel packages, transportation, and accommodations.

Store client feedback for quality improvement and customer satisfaction monitoring.

Use feedback data to improve and tailor future packages.

Itinerary Generation

Generate comprehensive itineraries for clients based on their bookings.

Include travel schedules, accommodation details, activities, and contact information for emergency assistance.

Send the itinerary to clients via email or make it downloadable from the system.

Remark

The database model should enable all these features. Yet, the front-end (web part) is only required for “Login and User Authentication”, “Client Management”, “Travel Package Management”, “Reservation System”. Doing more than this minimum will increase your grade through bonus points.

Required general functionalities

As a pedagogical exercise, the design and implementation of this project should demonstrate your ability to design a database and interact with it. To this end, you will have to ensure that the following minimal requirements are met:

- Add, edit, delete data
- Look for data
- Filter data according to relevant criteria
- Show relevant statistics from data, generate reports
- Implement a user interface allowing manipulation of the different features (forms)
- Allow multi-user (registration, connection)
- Properly design the database, respect the 3NF

The overall quality of the project and the richness of features will also be appreciated, so you are highly encouraged to go further and make a project of quality.