

5. TravelEaseDB (Database Management System)

Description:

TravelEaseDB is a comprehensive database management system designed to streamline travel-related operations. The project involved developing a robust backend using SQL for data management and a user-friendly frontend built with Windows Forms. The system supports multiple user roles including admins, users, trip operators, and service providers, each with tailored interfaces and functionalities.

Key Features:

- Role-based access control for Admins, Users, Trip Operators, and Service Providers
- Intuitive Windows Forms frontend with dedicated pages for each user type
- Comprehensive trip and service management workflows
- Dynamic report generation for monitoring and analysis

Technical Highlights:

- Backend implemented with SQL, including stored procedures, triggers, and relational schema design
- Frontend developed using Windows Forms for a rich desktop user interface
- Multi-role system ensuring secure and role-specific functionality
- Real-time data validation and reporting capabilities

Dependencies:

- SQL Server or compatible relational database system
- .NET Framework for Windows Forms application development
- Development environment supporting Windows Forms (e.g., Visual Studio)