

Task 4 Report: Travel Agency Management System

Introduction

In this task, we developed a Travel Agency Management System using Java. The system consists of two main classes: `Trip` and `TravelAgency`, along with an interface `TravelOrganizer`. The goal of this system is to allow the management of trips within a travel agency, providing functionalities to add, remove, and retrieve trip details.

Class Descriptions

1. Trip Class

Functionality: Represents a trip with attributes: destination and duration. Provides methods to get and set destination and duration. Overrides `toString()` method to provide a string representation of the trip details.

Goal: Encapsulates the essential properties of a trip, facilitating organization and management within the travel agency.

2. TravelOrganizer Interface

Functionality: Defines methods that a travel agency must implement to organize trips.

`addTrip(Trip trip)`: Adds a trip to the agency's list of trips. `removeTrip(Trip trip)`: Removes a specified trip from the agency's list. `getTrips()`: Retrieves a list of all trips currently managed by the agency.

Goal: Abstracts the operations required for trip management, promoting code reusability and flexibility in implementation.

3. TravelAgency Class

Functionality: Implements the `TravelOrganizer` interface. Manages a list of `Trip` objects representing all trips handled by the travel agency. Provides methods to add, remove, and retrieve trips from the list.

Goal: Acts as the core component of the travel agency system, enabling CRUD operations (Create, Read, Update, Delete) on trips. Ensures consistency and integrity of trip data within the agency.

Conclusion

The Travel Agency Management System developed in this task demonstrates effective use of object-oriented principles and interface implementation in Java. It provides essential functionalities for managing trips within a travel agency, enhancing organization and operational efficiency.