

Description about Taxi system:

The code allows users to perform various actions related to travel fares and invoicing through the command-line interface. It includes functionalities such as displaying fare tables, showing vehicle fares, generating invoices for trips between cities, and applying discounts or specifying vehicle types.

Key Functionalities:

1. Fare Calculation:

- The code uses a predefined fare chart (fare_chart) to calculate the fare between two cities based on the selected mode of transportation.
- It supports different vehicle types with corresponding fare multipliers stored in vehicle_fares.

2. Invoice Generation:

- After calculating the trip fare, the code generates an invoice containing details such as the starting city, ending city, total fare, applied promotions, random discounts, and final payment.
- The invoice is saved as a text file on the user's desktop within a directory named "TravelInvoices".

3. User Interaction:

- Users can input commands to perform various actions, such as calculating fares, applying promotions, specifying vehicle types, and accessing help information.
- The program provides feedback on the success of invoice generation and displays helpful messages for invalid commands.

4. Helper Functions:

- Helper functions like show_fare_table(), show_vehicle_fares(), and show_help() provide users with information about fare tables, vehicle fares, and command usage, respectively.

5. Looping Structure:

- The main loop continuously prompts the user for commands until they decide to exit by typing "exit".

Techniques Used:

- Dictionaries: Utilized to store fare information (fare_chart) and vehicle fares (vehicle_fares).
- Random Module: Used to generate random discounts for invoices.
- Datetime Module: Employed to include timestamp information in generated invoices.
- File Operations: Implemented file writing operations to save generated invoices on the user's desktop.
- String Formatting: Used to format invoice content with relevant details such as dates, times, and fare amounts.
- Input Parsing: The code parses user commands to extract relevant information, such as city names, promotions, and vehicle types.

This code provides a convenient and versatile tool for users to calculate travel fares, apply promotions, and generate invoices for their trips, enhancing their travel planning experience.