**COMPUTER PROGRAMMING**

**PROJECT REPORT:**

**PROJECT MEMBER:**

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**01-134251-002**

GitHub link:

<https://github.com/ab-haadi/CP-project.git>

INTRODUCTION:

**TOURISM MANAGEMENT SYSTEM:**

This study gives a full examination of the C++ code, which is a comprehensive application for managing and calculating tourism expenses. The code covers a variety of topics, including user input, currency conversion, travel and hotel options, and expense computations. The following is an analysis of the code's functionality, structure, and suggested enhancements.

***LIBRARIES:***

#include<iostream>

The above given library is used to both input and output the data on the console.

#include<conio.h>

Adds specific console functionalities, like reading a character without waiting for the Enter key (used here at the end of main ().

#include<string>

Facilitates easier manipulation of text, which is important for handling user input and displaying messages.

#include<fstream>

Manages file operations, which is crucial for storing user data and trip details in a text file.

#include<limits>

Enhances input validation by clearing the input stream when invalid data is entered, ensuring the program can handle unexpected inputs gracefully.

**COMPLETE PROGRAM OVERVIEW:**

**Welcome Message**: Displays the welcome message every time when the program is being executed

**Nationality Selection**: The user can indicate whether they are a national or an international tourist.

**Budget Input:** Collects the user's travel budget.

**Currency Conversion:** Allows overseas travelers to convert their budget to PKR.

**Tourist Spot Selection:** Provides a selection of prominent tourist destinations.

**Detailed Itineraries:** Shows detailed itineraries for selected destinations.

**Accommodation Options:** Provides information on various sorts of hotels.

**Travel Options:** Provides options for air and road travel.

**Expense Calculation:** Determines overall trip expenses depending on user inputs.

**Budget Comparison:** Evaluates total costs against the user's budget and provides feedback.

**Emergency Contacts:** Provides emergency contact information.

**User Feedback:** Gathers and maintains user ratings and trip information.

**Retry Option:** Allows the user to retry the process if desired.

**Main Program Functioning:**  
This C++ program serves as a Tourism Management System for planning vacations within Pakistan. It begins by greeting the user and determining their nationality to conduct currency conversion if necessary. The user enters their budget, which is subsequently converted into PKR. The program offers a variety of tourist spots and suggests places to visit based on the user's preferences. It also offers emergency contact information. The user defines the length of their stay, the number of travelers, the kind of accommodation, and the mode of transportation. The program estimates total spending and compares them to the budget, giving the user the choice to retry or discontinue the procedure with a feedback prompt. The trip information and user ratings are saved in a file.

**FUNCTIONS BEING USED IN THE PROGRAM ARE AS UNDER:**

1. `**displayWelcomeMessage()**`:

Displays a welcome message for the tourism management system.

2. `**getNationality()`:**

Asks the user to input their nationality and returns the first character in uppercase.

3. `**getBudget()`:**

Prompts the user to enter their budget for the trip and ensures a valid integer input.

4. `**displayLocations()`:**

Displays the list of tourist locations to choose from.

5. `**displayKashmirPlaces()`:**

Displays the places to visit in Kashmir.

6. `**displayGilgitBaltistanPlaces()`:**

Displays the places to visit in Gilgit-Baltistan.

7. `**displayMuree()`:** Displays the places to visit in Murree.

8. `**displayNARANKAGHAN**()`:

Displays the places to visit in Naran Kaghan.

9. `**getHotelType()`:**

Asks the user to select the type of hotel and returns the choice.

10. `**calculateHotelExpenses(int numDays, int hotelType)`:**

Calculates the hotel expenses based on the number of days and the chosen hotel type.

11. **`getTravelType()`:**

Asks the user to select the mode of travel and returns the choice.

12. `**calculateTravelExpenses(int numPerson, int travelType)`:**

Calculates the travel expenses based on the number of persons and the chosen travel type.

13. `**displayTotalExpenses(int totalExpenses)`:**

Displays the total estimated expenses for the trip.

14. `**displayEmergencyContacts()`:**

Displays emergency contact numbers.

15. `**getUserRating()`:**

Prompts the user to rate the system on a scale of 1.0 to 5.0 and returns the rating.

16. `**convertToPKR(char nationality)`:**

Converts the budget to PKR based on the user's nationality and currency choice.

17. `**storeCustomerInfo(int budget, int locationChoice, int hotelType, int travelType, int numDays, int numPerson, int totalExpenses, float rating)`:**

Stores the customer's trip details and rating in a file.

**Sample Output**

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WELCOME TO OUR TOURISM MANAGEMENT SYSTEM

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EXPLORE TOURIST SPOTS, PLACES TO VISIT

AND MUCH MORE!

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Are you a national or international tourist?

Enter 'N' for national or 'I' for international: I

Do you have dollars or euros? Enter 'D' for dollars or 'E' for euros: D

Enter your budget for the trip: 1000

Your budget in PKR =

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Rs.286000

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SELECT TORUIST SPOT

1. KASHMIR

2. GILGIT-BALTITSTAN

3. MURREE

4. NARAN & KAGHAN :

2

PLACES YOU'LL GONNA VISIT IN GILGIT~BALTISTAN:

- HUNZA VALLEY -

- SKARDU -

- FAIRY MEADOWS-

Emergency Contacts:

- Police: 15

- Ambulance: 115

- Fire Brigade : 16

Enter The Number of Days You Are Planning to Stay: 5

Enter The Number of People Travelling: 2

Select hotel type:

1. Budget Hotel (Rs. 1000 per day)

2. Mid-range Hotel (Rs. 2000 per day)

3. Luxury Hotel (Rs. 3000 per day)

3

Select travel type:

1. Air Travel (Rs. 5000 per person)

2. Road Travel (Rs. 2000 per person)

1

Your total estimated expenses are: Rs. 40000

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YOUR TRIP EXPENSES ARE WITHIN YOUR BUDGET :)

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WANNA TRY AGAIN?

PRESS 'Y' IF YOU WANT TO TRY AGAIN (or any other key to skip) N

Please rate our system (1.0 to 5.0): 4.5

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THANK YOU FOR USING OUR SYSTEM

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**6. Conclusion**

The Tourism System Management Program is a comprehensive tool for planning trips in Pakistan. It simplifies the process of budgeting and choosing travel options while providing a user-friendly interface. The program’s design ensures users can easily navigate through the steps and make informed decisions about their trip.

The program's ability to handle different currencies and provide immediate feedback on expenses relative to the budget makes it particularly useful for both national and international tourists.

By using clear prompts and organized outputs, the program effectively guides users through the planning process, ensuring a smooth and enjoyable experience

**REFERENCES:**

* **Programiz.**
* **Stack Overflow.**
* **DeepSeek.**