TOURIST INFORMATION SYSTEM

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INTRODUCTION

✓ Project Overview: Kerala Tourist Information System

This C program serves as a simple information system that provides details about popular tourist spots in Kerala.It features 10 well-known places to visit in Kerala.Each spot lists five hotels where travelers can stay.There are also two or three travel agencies for each spot that can help with planning the trips.

Some of the key features are that it's easily readable i.e It displays the information in a clear and straightforward way, making it easy for users to find what they need.The program uses structures to neatly organize data about tourist spots, hotels, and travel agencies.Also,it avoids complex programming constructs, making it beginner-friendly.

This system helps travelers quickly find where to stay and whom to contact when visiting Kerala.

Overall, this project is a simple yet effective way to learn about programming while providing useful travel information about the beautiful state of Kerala.

✓ Problem Statement:

Create a system that provides information about tourist spots, hotels, and travel arrangements.The system should display essential details about each destination, including available hotels and local travel agencies, to assist travelers in planning their trips.

✓ Objective:

The main objective of this Tourist Information System is to create a user-friendly tool that provides essential information about popular tourist destinations in Kerala. It enhance the travel planning experience for anyone looking to explore the rich culture and natural beauty of Kerala.Specifically, the program aims to:

1. Offer detailed insights into 10 key tourist spots, helping travelers learn about various attractions
2. Providing details of nearby hotels and resorts enabling visitors to choose suitable places to stay based on their preferences and budget.
3. Provide information about 2 or 3 local travel agencies for each location, making it easier for travelers to plan their itineraries and access local services.
4. Organizing the information using structures in C, ensuring clarity and ease of access to details giving a structured data presentation.
5. It also serve as a practical example for beginners to understand basic programming concepts and data structures.

SYSTEM REQUIREMENTS

✓ Hardware Requirements:

- Any basic computer or laptop with a compatible operating system like Windows, macOS, Linux,etc.
  -Minimum 1 GB RAM for better performance.
  -At least 10 MB of free disk space to store the program and any related files.
- Processor:
  - A basic processor is sufficient for running simple C programs.

✓ Software Requirements:

- **Operating System:**
  -Compatible with Windows, macOS, or Linux distributions.

- **C Compiler:**
  -A C compiler is required to compile and run the program.
  -Options include:
  1.GCC**:**Available on Linux and Windows
  2.TURBO C/C++: An older but widely used one for beginners on Windows.
  3.Code::Blocks: A user-friendly IDE that supports various compilers.
  4.Dev-C++: Another simple IDE for Windows users.

- **Text Editors:**
  -Any text editor or Integrated Development Environment (IDE) to write and edit the C code.
  -Options include:
  1. Visual Studio Code
  2. Notepad++
  3. Eclipse CDT
  4. Code::Blocks
  5. Dev-C++
  -Additional Tools such as Basic Command Line Tools for the knowledge of using the command line for compiling and running the program.

DESIGN AND DEVELOPMENT

✓ Description of the Program Logic:

Here's a simple breakdown of the program logic:

1.Data Structure Definition: A struct is defined to hold information about each tourist spot. This structure contains:
- The name of the tourist spot.

- An array of five hotels associated with that spot.

- An array of two or three travel agencies for planning visits.

2.Data Initialization:

- An array of 10 TouristSpot structures is created and initialized with predefined data for each tourist spot including names, hotel names, and travel agencies.

3.Main Program Logic:

- The program enters the `main` function where it executes the following:

- Iterates through each tourist spot using a loop.

- For each spot, it prints the name, followed by a list of associated hotels.

- It then prints the names of the travel agencies available at that spot.

4.Output Formatting:

- The information is displayed in a structured format, making it easy for users to read and understand. Each tourist spot is clearly separated, with its hotels and travel agencies listed in an organized manner.

5.Program Execution:

- Upon running the program, it will output all the information about the tourist spots, ensuring users can access the data with a single execution.

✓Pseudocode

```
BEGIN

STRUCT TouristSpot
    STRING name
    STRING description
END STRUCT

STRUCT Hotel
    STRING name
    STRING location
    FLOAT price
END STRUCT

STRUCT TravelAgency
    STRING name
    STRING contact
    STRING services
END STRUCT

FUNCTION displayTouristSpots(spots, count)
    PRINT "Tourist Spots in Kerala:"
    FOR i FROM 0 TO count - 1 DO
    PRINT i + 1, spots[i].name, ":", spots[i].description
    END FOR
END FUNCTION

FUNCTION displayHotels(locationChoice)
    PRINT "Hotels:"
    SWITCH locationChoice
      CASE 1:
        PRINT hotels for Munnar
      CASE 2:
```

```
            PRINT hotels for Alleppey
        CASE 3:
            PRINT hotels for Kochi
        CASE 4:
            PRINT hotels for Thekkady
        CASE 5:
            PRINT hotels for Vagamon
        CASE 6:
            PRINT hotels for Kumarakom
        CASE 7:
            PRINT hotels for Wayanad
        CASE 8:
            PRINT hotels for Kovalam
        CASE 9:
            PRINT hotels for Athirappilly
        CASE 10:
            PRINT hotels for Bekal
        DEFAULT:
            PRINT "No hotels available for this location."
    END SWITCH
END FUNCTION
FUNCTION displayTravelAgencies(locationChoice)
    PRINT "Travel Agencies:"
    SWITCH locationChoice
        CASE 1:
            PRINT agencies for Munnar
        CASE 2:
            PRINT agencies for Alleppey
        CASE 3:
```

```
            PRINT agencies for Kochi
        CASE 4:
            PRINT agencies for Thekkady
        CASE 5:
            PRINT agencies for Vagamon
        CASE 6:
            PRINT agencies for Kumarakom
        CASE 7:
            PRINT agencies for Wayanad
        CASE 8:
            PRINT agencies for Kovalam
        CASE 9:
            PRINT agencies for Athirappilly
        CASE 10:
            PRINT agencies for Bekal
        DEFAULT:
            PRINT "No travel agencies available for this location."
    END SWITCH
END FUNCTION
INITIALIZE spots ARRAY with 10 TouristSpot
    // Populate each spot with name and description
WHILE TRUE DO
    PRINT menu options
    READ choice
SWITCH choice
        CASE 1:
            CALL displayTouristSpots(spots, 10)
        CASE 2:
            PRINT "Select a location to view hotels:"
```

```
            READ locationChoice
            CALL displayHotels(locationChoice)
        CASE 3:
            PRINT "Select a location to view travel agencies:"
            READ locationChoice
            CALL displayTravelAgencies(locationChoice)
        CASE 4:
            PRINT "Exiting the system. Goodbye!"
            BREAK
        DEFAULT:
            PRINT "Invalid choice. Please try again."
END SWITCH
END WHILE
END
```

TESTING AND RESULTS

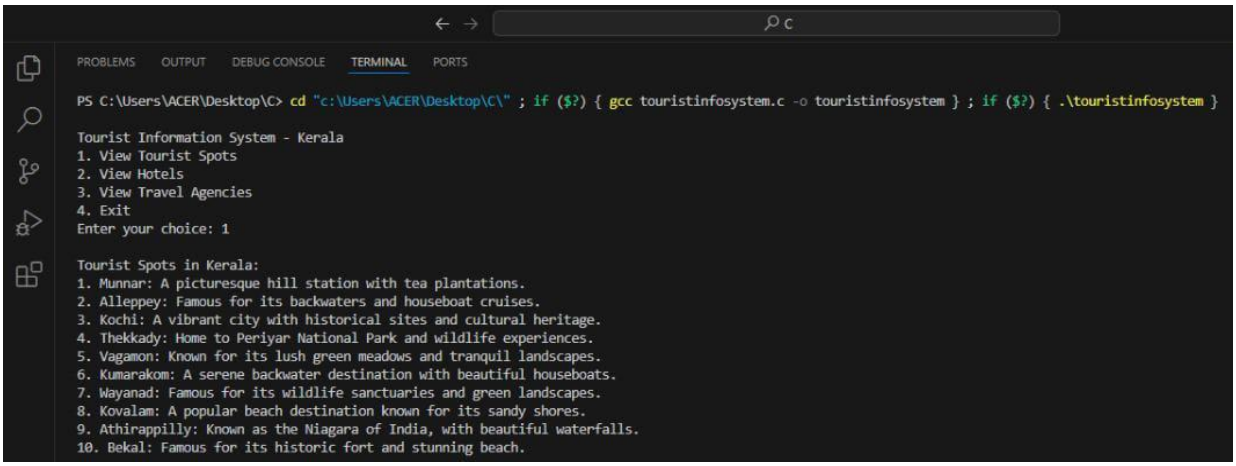
✓Test Cases:

Some of the test cases that are used to ensure correct functionality of the system are as follows:

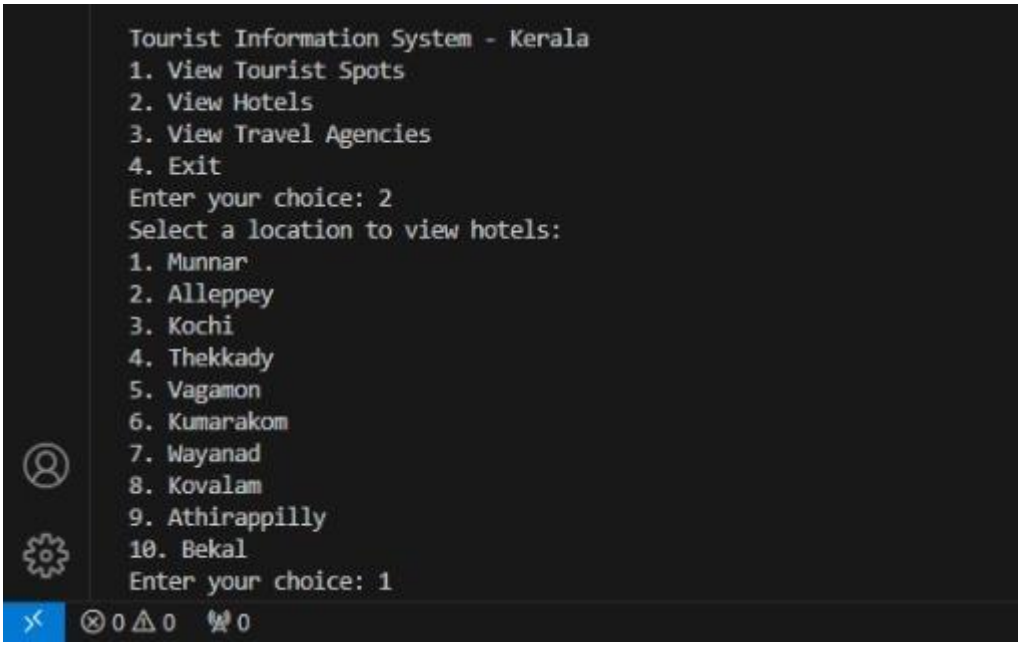
1. **DISPLAY TOURIST PLACES:**
   - **Purpose**: To verify if the program can correctly list all ten tourist spots in Kerala.
   - **Outcome**: The program successfully outputs all tourist spots along with their descriptions, confirming that the data is correctly stored and displayed.
2. **VIEW HOTELS FOR SPECIFIC PLACES:**
   - **Purpose**: To check if the program lists hotels for a selected tourist spot.
   - **Outcome**: The program outputs a complete list of hotels in Munnar, including their names and prices, indicating proper functionality for hotel retrieval.
3. **VIEW TRAVEL ARRANGEMENTS FOR SPECIFIC PLACES:**
   - **Purpose**: To assess the program's ability to retrieve travel agencies based on user selection.
   - **Outcome**: The correct travel agencies for Munnar are displayed, demonstrating accurate data association with the tourist spot.
4. **VIEW INVALID CHOICE:**
   - **Purpose**: To test the program's handling of invalid menu choices.
   - **Outcome**: The program responds with an invalid choice message, indicating effective error handling and user guidance.
5. **CHECK EXIT FUNCTIONALITY:**
   - **Purpose**: To confirm that the program can exit gracefully.
   - **Outcome**: The exit message is displayed as expected, ensuring a smooth termination of the program.

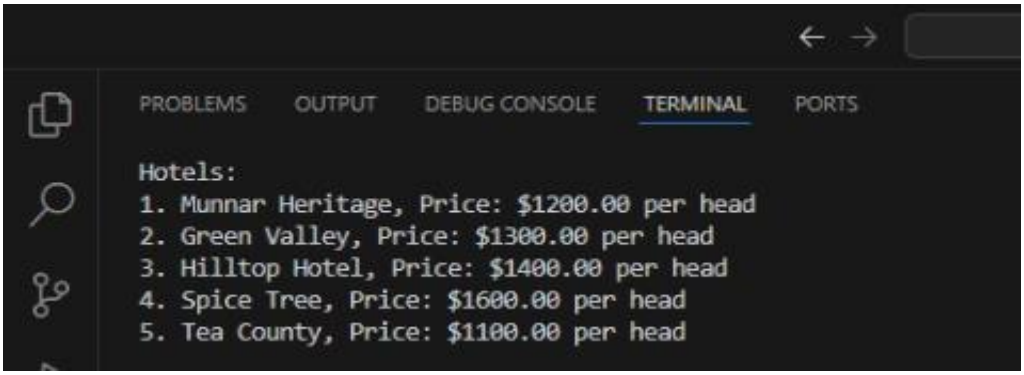
✓Results:

TEST CASE 1: DISPLAY TOURIST PLACES
INPUT:SELECT OPTION 1
EXPECTED OUTPUT:

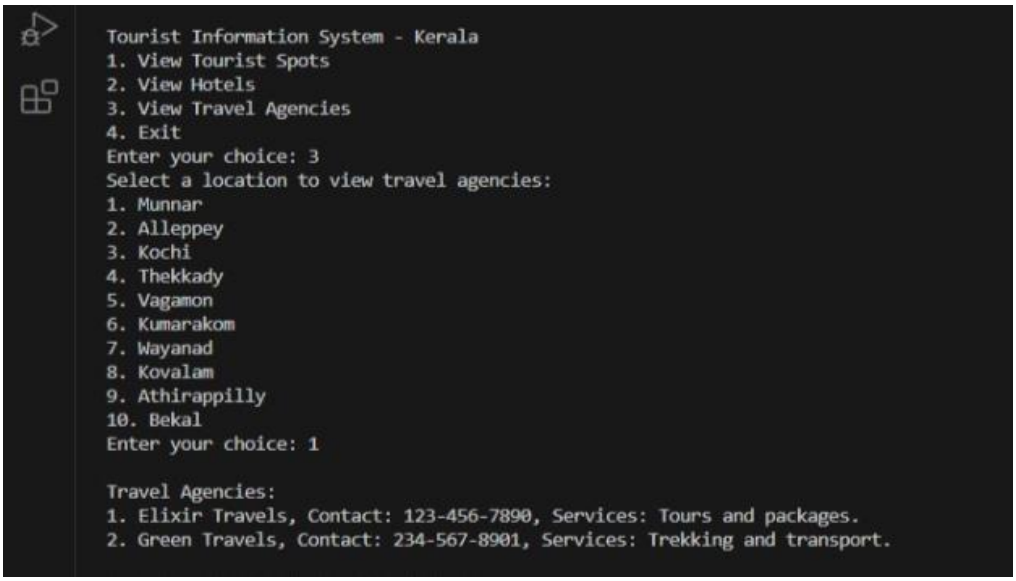


TEST CASE 2: VIEW HOTELS FOR SPECIFIC PLACES
INPUT: SELECT OPTION 2, THEN SELECT LOCATION 1
EXPECTED OUTPUT:

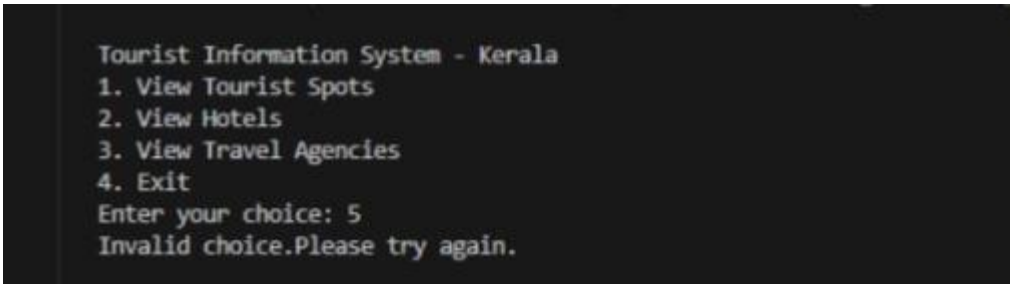




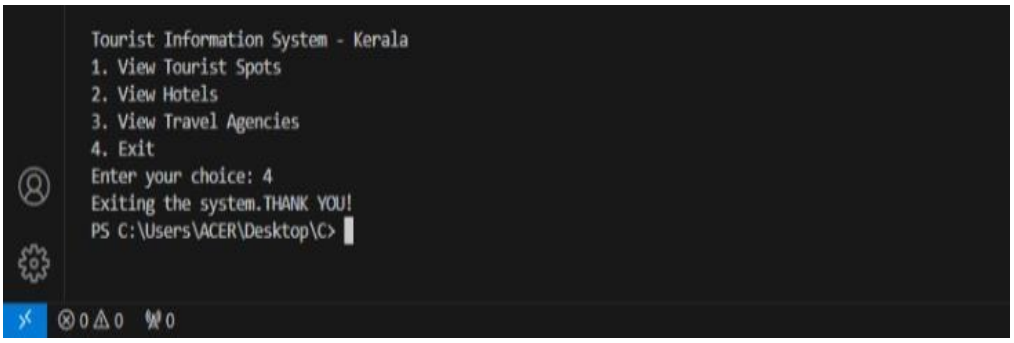
TEST CASE 3: VIEW TRAVEL ARRANGEMENTS FOR SPECIFIC PLACES
INPUT: SELECT OPTION 3, THEN SELECT LOCATION 1
EXPECTED OUTPUT:



TEST CASE 4: VIEW INVALID CHOICE
INPUT: SELECT AN INVALID OPTION(E.G.,5)
EXPECTED OUTPUT:



TEST CASE 5: CHECK EXIT FUNCTIONALITY
INPUT:SELECT OPTION 4
EXPECTED OUTPUT:



✓ Overall Assessment:

The program works really well in all the important areas. It successfully displays tourist spots, hotels, and travel agencies while also managing invalid inputs gracefully. The simple menu interface keeps users engaged and makes it easy to find the information they need. Overall, the results show that this program is reliable and well-organized for providing valuable tourist information about Kerala, making it a great tool for anyone planning to visit the state.

CONCLUSION

✓ Summary:

The Tourist Information System is a C program designed to provide essential information about various tourist attractions in Kerala. It features:

1.Tourist Spots: Displays a list of ten popular destinations in Kerala, along with brief descriptions of each spot.

2.Hotels: Allows users to view a selection of five hotels for each tourist location, including details such as hotel names and pricing.

3.Travel Agencies: Provides information about two travel agencies for each tourist spot, including contact details and services offered.

4.User Interaction: The program employs a simple menu-driven interface that enables users to easily navigate through options to view tourist spots, hotels, or travel agencies.

5.Input Validation: It effectively handles invalid inputs by informing users when they select an option outside the expected range.

This structured approach ensures that users can efficiently access relevant information, making it a useful resource for anyone planning to explore the beauty of Kerala.In conclusion, this Tourist Information System is a valuable resource for travelers interested in exploring the rich offerings of Kerala. By providing easy access to information about popular tourist spots, accommodations, and local travel agencies, the program simplifies the trip planning process. Its intuitive interface and effective input handling ensure a smooth user experience. Overall, this system serves as an excellent companion for anyone looking to enjoy the diverse attractions and beauty of Kerala.

✓ Future Enhancements:

1.User Profiles:

Allowing users to create profiles to save their favorite spots, preferences, or past searches. This makes the experience more engaging and tailored to individual needs.

2. Advanced Search Functionality:

Adding filters to help users search for hotels or agencies based on specific criteria like price. This allows users to quickly find exactly what they’re looking for.

3. Integration with Maps:

Incorporating maps to show directions and distances between tourist spots and accommodations. This would help travelers plan their journeys more effectively.

4. Reviews and Ratings:

Introducing a section for users to read and submit reviews and ratings for hotels and agencies. This provides valuable insights and helps others make informed choices.

5. Mobile Application:

Creating a mobile app version of the system for easy access on the go. This would make it convenient for users to get information while traveling.

6. Event and Activity Listings:

Including information about local events, festivals, and activities happening in each tourist spot. This adds depth to the travel experience by highlighting special events during visits.

By adding these enhancements, the Tourist Information System can become an even more powerful tool for travelers, helping them discover and enjoy the incredible attractions of Kerala more easily.