PSP [20ES104] COURSE PROJECT REPORT

On

"Travel Package System"

Developed By:

STUDENT NAME   T. NAVYA LOHITHA

Under the Guidance of

Mr. Srinivas Aluvala, M.Tech. (Ph.D)

Assistant Professor

Submitted to

Department Computer Science and Artificial Intelligence

SR University

Ananthasagar(V), Hasanparthy(M), Hanamkonda(Dist.) – 506371

www.sru.edu.in

June 2023

Department of Computer Science and Artificial Intelligence

<u>CERTIFICATE</u>

This is to certify that the PSP course project report entitled **"Travel Package System"** is a record of bonafide work carried out by the student(s) **T. NAVYA LOHITHA**bearing roll number(s) **2203A52057** of Computer Science and Artificial Intelligence department during the academic year 2022-23.

Supervisor

(Srinivas Aluvala)

INDEX

PROBLEM STATEMENT:

Develop a C Application to create **Travel Package System** . The program that user should choose the type of **Travel** he/she required . Choose the city dynamically . At last displays the cost to be paid.

1. The Program is for a travel package booking system.

2. It allows users to select the type of travel (domestic or international)

3. Then choose from a list of destinations.

4. Based on the user's selection, the program collects passenger details and package information.

5. Calculates the total cost, and generates a receipt.

6. This code will run until I exit.

MODULES:

In this application all variables and structure are declared globally so that these variables and structure members can be accessed throughout the program at any function call. We can choose any function by using function calls which are declared in switch-case. In order to repeat the loop control statement (do-while) is used with condition. The memory allocation will be done in this program dynamically. The application asks the person who runs theprogram that how many passengers data he/she want to store.

 In this application four modules are used.

1. Read/Input

   In this module the application asks the person who runs the program to know enter n passenger's details. To give n customers details for loop is used.

   In this module we used another control statement

   (do while, goto) so that the application asks whether to continue sorting.

2. Functions are defined: intro(), passenger_details(), package_details(), and receipt(). These functions are responsible for displaying information to the user and printing the details on the screen.

   In this module we used another control statement (do while) so that the application asks whether to continue.

3. Print

In this module all the stored details of n passengers will be displayed on to the screen. In this module recept() function are used.

KNOWLEDGE REQUIRED TO DEVELOP THIS APPLICATION

- ➢ Control Statements (if, if-else, switch)

- ➢ Loop Statements (while/do while, for)

- ➢ Arrays (1D/2D-arrays)

- ➢ Strings (Strings and Table of strings) and its functions

- ➢ Functions (Any type of user defined functions)

- ➢ Structure (structures and nested structures)

- ➢ Pointers (pointer to strings and pointers to structures)

- ➢ Dynamic Memory Allocation (malloc/ calloc/ realloc)

SOURCE CODE [.C FILE]:

```c
#include <stdio.h>
#include <stdlib.h>

struct passenger {
  char name[20];
  int age;
  char phone_number[10];
};

struct package {
  char destination[20];
  int days;
  float cost_per_day;
};

void intro() {
  printf("\n\n");
  printf("\t\t*********************************************************************\n");
  printf("\t\t||        Welcome to the Vihasith Travel Package System!         ||    \n");
  printf("\t\t||    Please select the type of travel you would like to book:   ||  \n");
  printf("\t\t*********************************************************************\n");
  printf("\n\t\t1. Domestic\n");
  printf("\t\t2. International\n");
  printf("\t\t3. Exist");
}

void passenger_details(struct passenger *passenger) {
  printf("\n\n\t\tName: %s\n", passenger->name);
  printf("\t\tAge: %d\n", passenger->age);
  printf("\t\tPhone number: %s\n", passenger->phone_number);
}

void package_details(struct package *package) {
  printf("\n\n\t\tDestination: %s\n", package->destination);
  printf("\t\tDays: %d\n", package->days);
  printf("\t\tCost per day: %.2f\n", package->cost_per_day);
}

void receipt(struct passenger *passengers, struct package *package, int num_passengers) {
  int i;
  printf("\n\t\t-------------------------------------------------------\n");
  printf("\t\t\t\t*Receipt*\n");
  printf("\t\t-------------------------------------------------------\n");
  printf("\t\t-----------------:\n");
  printf("\t\tPassengers details:");
  printf("\n\t\t-----------------:");
  for (i = 0; i < num_passengers; i++) {
    passenger_details(&passengers[i]);
  }
  printf("\n\t\t----------------:\n");
  printf("\t\tPackage details:");
  printf("\n\t\t----------------:");
  package_details(package);
  printf("\t\tTotal cost: %.2f\n", package->cost_per_day * (num_passengers + package->days));
  printf("\t\t-------------------------------------------------------");
  printf("\n\t\t\t*Thanking You For Choosing Vihasith Travels*");
  printf("\n\t\t-------------------------------------------------------\n");

}

int main() {
  int choice,i,n;
  int num_passengers;
```

```c
  struct passenger passengers[10];
  struct package package;

main:
  intro();
  printf("\n\t\tEnter your choice:");
  scanf("\t\t%d", &choice);


  switch (choice) {
    case 1:
      //domestic_options();
  printf("\n\t\tHere are the top 5 places in India:\n");
  printf("\t\t1. Delhi\n");
  printf("\t\t2. Goa\n");
  printf("\t\t3. Kolkata\n");
  printf("\t\t4. Malani\n");
  printf("\t\t5. Hampi\n");
  printf("\t\t6. Display Menu\n");
  printf("\n\t\tSelect An Option From Above List:");
  scanf("%d",&n);
  switch(n){
    case 1:
    printf("\n\t\tYou Have Selected Delhi");
    printf("\n\n\t\tDelhi which is built during the Mughal period and\n\t\tNew Delhi which has
many beautiful parks and big new buildings.");
    printf("\n\n\t\tEnter number of passengers:");
      scanf("%d", &num_passengers);
      for ( i = 0; i < num_passengers; i++) {
        printf("\n\n\t\tEnter passenger name          :");
        scanf("%s", &passengers[i].name);
        printf("\t\tEnter passenger age            :");
        scanf("%d", &passengers[i].age);
        printf("\t\tEnter passenger phone number :");
        scanf(" %s", &passengers[i].phone_number);
      }
       printf("\t\tPlease enter the number of days:");
      scanf("%d", &package.days);
      package.cost_per_day = 5000;

      printf("\n\n\t\tPlease coform your destination (in words):");
      scanf("%s", package.destination);

      receipt(passengers, &package, num_passengers);
      break;
    case 2:
      printf("\n\t\tYou Have Selected Goa");
      printf("\n\n\t\tGoa is the smallest state in western India with coastlines of the Arabian
Sea.\n\t\tOn 30th May 1987, Goa was declared as a state of India.\n\t\t Goa's capital is Panaji
City; its world-class beaches, food, friendly people are the attraction of Goa.\n\t\t Goa is
mainly known for world-famous beaches.");

      printf("\n\n\t\tEnter number of passengers:");
      scanf("%d", &num_passengers);
      for ( i = 0; i < num_passengers; i++) {
        printf("\n\n\t\tEnter passenger name          :");
        scanf("%s", &passengers[i].name);
        printf("\t\tEnter passenger age            :");
        scanf("%d", &passengers[i].age);
        printf("\t\tEnter passenger phone number :");
        scanf(" %s", &passengers[i].phone_number);
      }
       printf("\t\tPlease enter the number of days:");
      scanf("%d", &package.days);
      package.cost_per_day = 5000;
```

```c
            printf("\n\n\t\tPlease coform your destination (in words):");
            scanf("%s", package.destination);

            receipt(passengers, &package, num_passengers);
            break;
        case 3:
          printf("\n\t\tYou Have Selected kolkata:");
          printf("\n\n\t\tThe Port of Kolkata is India's oldest operating port and its sole major riverine
port.\n\t\tKolkata is regarded as the cultural capital of India.\n\t\t Kolkata is the second
largest Bengali-speaking city after Dhaka.");
          printf("\n\n\t\tEnter number of passengers:");
            scanf("%d", &num_passengers);
            for ( i = 0; i < num_passengers; i++) {
              printf("\n\n\t\tEnter passenger name            :");
              scanf("%s", &passengers[i].name);
              printf("\t\tEnter passenger age             :");
              scanf("%d", &passengers[i].age);
              printf("\t\tEnter passenger phone number :");
              scanf(" %s", &passengers[i].phone_number);
            }
             printf("\t\tPlease enter the number of days:");
            scanf("%d", &package.days);
            package.cost_per_day = 5000;

            printf("\n\n\t\tPlease coform your destination (in words):");
            scanf("%s", package.destination);

            receipt(passengers, &package, num_passengers);
            break;
        case 4:
          printf("\n\t\tYou Have Selected Manali");
          printf("\n\n\t\tA gift of the Himalayas to the world, \n\t\t Manali is a beautiful township
nestled in the picturesque Beas River valley.");
          printf("\n\n\t\tEnter number of passengers:");
            scanf("%d", &num_passengers);
            for ( i = 0; i < num_passengers; i++) {
              printf("\n\n\t\tEnter passenger name            :");
              scanf("%s", &passengers[i].name);
              printf("\t\tEnter passenger age             :");
              scanf("%d", &passengers[i].age);
              printf("\t\tEnter passenger phone number :");
              scanf(" %s", &passengers[i].phone_number);
            }
             printf("\t\tPlease enter the number of days:");
            scanf("%d", &package.days);
            package.cost_per_day = 5000;

            printf("\n\n\t\tPlease coform your destination (in words):");
            scanf("%s", package.destination);

            receipt(passengers, &package, num_passengers);
            break;
         case 5:
            printf("\n\t\tYou Have Selected Hampi");
            printf("\n\n\t\tHampi is a cultural and architectural heritage site built more than 200 years
ago.\n\t\t The site was constructed between 1336 AD to 1565 AD.\n\t\t This location is famous for
its temples, palaces, market streets and monuments,\n\t\t making up the Vijayanagara Empire.");
            printf("\n\n\t\tEnter number of passengers:");
            scanf("%d", &num_passengers);
            for ( i = 0; i < num_passengers; i++) {
              printf("\n\n\t\tEnter passenger name            :");
              scanf("%s", &passengers[i].name);
              printf("\t\tEnter passenger age             :");
              scanf("%d", &passengers[i].age);
              printf("\t\tEnter passenger phone number :");
              scanf(" %s", &passengers[i].phone_number);
```

```c
        }
         printf("\t\tPlease enter the number of days:");
        scanf("%d", &package.days);
        package.cost_per_day = 5000;

        printf("\n\n\t\tPlease coform your destination (in words):");
        scanf("%s", package.destination);

        receipt(passengers, &package, num_passengers);
        break;
 case 6:
 goto main;
 break ;
 default:printf("\ninvalid choice");

 }

   break;

    case 2:
    //  international_options();
  printf("\n\t\tHere are the top 5 places in the world:\n");
  printf("\t\t1. Paris\n");
  printf("\t\t2. Rome\n");
  printf("\t\t3. London\n");
  printf("\t\t4. New York \n");
  printf("\t\t5. Barcelona\n");
  printf("\t\t6. Display Menu\n");
  printf("\n\t\tSelect An Option From Above List:");
  scanf("%d",&n);
  switch(n){
    case 1:
      printf("\n\t\tYou Have Selected Paris");
      printf("\n\n\t\tParis is one of the most beautiful cities in the world.\n\t\t It is known
worldwide for the Louvre Museum, Notre-Dame cathedral, and the Eiffel tower.\n\t\t It has a
reputation of being a romantic and cultural city.");
      printf("\n\n\t\tEnter number of passengers:");
      scanf("%d", &num_passengers);
      for ( i = 0; i < num_passengers; i++) {
        printf("\n\n\t\tEnter passenger name          :");
        scanf("%s", &passengers[i].name);
        printf("\t\tEnter passenger age           :");
        scanf("%d", &passengers[i].age);
        printf("\t\tEnter passenger phone number :");
        scanf(" %s", &passengers[i].phone_number);
      }
       printf("\t\tPlease enter the number of days:");
      scanf("%d", &package.days);
      package.cost_per_day = 10000;

      printf("\n\n\t\tPlease coform your destination (in words):");
      scanf("%s", package.destination);

      receipt(passengers, &package, num_passengers);
      break;
    case 2:
      printf("\n\t\tYou Have Selected Rome");
      printf("\n\n\t\tThe Metropolitan City of Rome, with a population of 4,355,725 residents, is
the most populous metropolitan city in Italy.\n\t\t Its metropolitan area is the third-most
populous within Italy. \n\t\tRome is located in the central-western portion of the Italian
Peninsula, within Lazio (Latium), along the shores of the Tiber.");
      printf("\n\n\t\tEnter number of passengers:");
      scanf("%d", &num_passengers);
      for ( i = 0; i < num_passengers; i++) {
        printf("\n\n\t\tEnter passenger name          :");
        scanf("%s", &passengers[i].name);
```

```c
            printf("\t\tEnter passenger age          :");
            scanf("%d", &passengers[i].age);
            printf("\t\tEnter passenger phone number :");
            scanf(" %s", &passengers[i].phone_number);
        }
         printf("\t\tPlease enter the number of days:");
        scanf("%d", &package.days);
        package.cost_per_day = 10000;

        printf("\n\n\t\tPlease coform your destination (in words):");
        scanf("%s", package.destination);

        receipt(passengers, &package, num_passengers);
        break;
case 3:
  printf("\n\t\tYou Have Selected London:");
  printf("\n\n\t\tLondon is the capital city of the United Kingdom.\n\t\t It is the U.K.'s largest
metropolis and its economic, transportation, and cultural centre.\n\t\t London is also among the
oldest of the world's great cities, with its history spanning nearly two millennia.");
  printf("\n\n\t\tEnter number of passengers:");
        scanf("%d", &num_passengers);
        for ( i = 0; i < num_passengers; i++) {
          printf("\n\n\t\tEnter passenger name          :");
          scanf("%s", &passengers[i].name);
          printf("\t\tEnter passenger age          :");
          scanf("%d", &passengers[i].age);
          printf("\t\tEnter passenger phone number :");
          scanf(" %s", &passengers[i].phone_number);
        }
         printf("\t\tPlease enter the number of days:");
        scanf("%d", &package.days);
        package.cost_per_day = 10000;

        printf("\n\n\t\tPlease coform your destination (in words):");
        scanf("%s", package.destination);

        receipt(passengers, &package, num_passengers);
        break;
case 4:
  printf("\n\t\tYou Have Selected New York ");
  printf("\n\n\t\tNew York was the capital of the United States from 1785 until 1790, and has been
the biggest U.S. city since 1790. \n\t\tThe Statue of Liberty welcomed millions of immigrants as
they came to the U.S. by ship in the late 19th and early 20th centuries,\n\t\t and it is a symbol
of the U.S. and its ideals of liberty and peace.");
 printf("\n\n\t\tEnter number of passengers:");
        scanf("%d", &num_passengers);
        for ( i = 0; i < num_passengers; i++) {
          printf("\n\n\t\tEnter passenger name          :");
          scanf("%s", &passengers[i].name);
          printf("\t\tEnter passenger age          :");
          scanf("%d", &passengers[i].age);
          printf("\t\tEnter passenger phone number :");
          scanf(" %s", &passengers[i].phone_number);
        }
         printf("\t\tPlease enter the number of days:");
        scanf("%d", &package.days);
        package.cost_per_day = 10000;

        printf("\n\n\t\tPlease coform your destination (in words):");
        scanf("%s", package.destination);

        receipt(passengers, &package, num_passengers);
        break;
 case 5:
    printf("\n\t\tYou Have Selected Barcelona");
```

```c
    printf("\n\n\t\tBarcelona is a very old city in which you can feel the weight of history;it is
haunted by history. \n\t\tYou cannot walk around it without perceiving it. Carlos Ruiz Zafon was a
novelist, born in Barcelona,\n\t\t whose name has become synonymous with the city thanks to his
famous Shadow of the Wind series");
    printf("\n\n\t\tEnter number of passengers:");
      scanf("%d", &num_passengers);
      for ( i = 0; i < num_passengers; i++) {
        printf("\n\n\t\tEnter passenger name          :");
        scanf("%s", &passengers[i].name);
        printf("\t\tEnter passenger age           :");
        scanf("%d", &passengers[i].age);
        printf("\t\tEnter passenger phone number :");
        scanf(" %s", &passengers[i].phone_number);
      }
       printf("\t\tPlease enter the number of days:");
      scanf("%d", &package.days);
      package.cost_per_day = 10000;

      printf("\n\n\t\tPlease coform your destination (in words):");
      scanf("%s", package.destination);

      receipt(passengers, &package, num_passengers);
      break;
 case 6:
 goto main;
 break ;
 default:printf("\ninvalid choice");
 }

   default:
     printf("\t\tInvalid choice.\n");
     break;
 }

  return 0;
```

RESULTS:

```
*************************************************************************
||        Welcome to the Vihasith Travel Package System!        ||
||     Please select the type of travel you would like to book:    ||
*************************************************************************

1. Domestic
2. International
3. Exist
Enter your choice:2

Here are the top 5 places in the world:
1. Paris
2. Rome
3. London
4. New York
5. Barcelona
6. Display Menu

Select An Option From Above List:4

You Have Selected New York

New York was the capital of the United States from 1785 until 1790, and has been the biggest U.S. city since 1790.
The Statue of Liberty welcomed millions of immigrants as they came to the U.S. by ship in the late 19th and early 20th centuries,
 and it is a symbol of the U.S. and its ideals of liberty and peace.

Enter number of passengers:1


Enter passenger name          :Nikhil
Enter passenger age           :24
Enter passenger phone number :8125863160
Please enter the number of days:7


Please coform your destination (in words):New York

-----------------------------------------------------
               *Receipt*
-----------------------------------------------------
------------------:
Passengers details:
------------------:

Name: Nikhil
Age: 24
Phone number: 8125863160

----------------:
Package details:
----------------:

Destination: New
Days: 7
Cost per day: 10000.00
Total cost: 80000.00
--------------------------------------------------
*Thanking You For Choosing Vihasith Travels*
--------------------------------------------------
```