**מטלה 12**

**איתי חסיד – 316166636**

#define \_CRT\_SECURE\_NO\_WARNINGS

#define SIZE 60

#include <stdio.h>

#include <string.h>

#include <stdlib.h>

**typedef** **struct**

{

**int** day;

**int** month;

**int** year;

}Date;

**typedef** **struct**

{

**char**\* passengername;

**char** phonenum[10];

}Passenger;

**typedef** **struct**

{

**char** tripname[10];

Date tripdate;

**char** destination[10];

Passenger passenger[10];

**int** actualpassenger;

}Trip;

**typedef** **struct**

{

Trip\* trips;

**int** tripsnum;

}Agency;

**void** SetPassenger(Passenger\* passenger);

Trip\* SearchTrip(Agency\* agency, Date date);

**void** AddTrip(Agency\* agency, Date date);

**void** AddPassenger(Agency\* agency, Date date);

**void** setTrip(Trip\* set);

**void** printTravelAgencyDetails(Agency\* agency);

**void** printTrip(Trip\* trip);

**int** main()

{

Date A;

Agency Travelist = {**NULL**,0};

**int** decision;

printf("Please enter what you want to do: To Trips 1, To add passengers 2, To Exit 0\n");

scanf("%d", &decision);

**while** (decision <= 2 && decision >=0)

{

**if** (decision == 1)

{

printf("Please enter the date for the trip you are looking for,order by date, month, year:\n");

scanf(" %d %d %d", &A.day, &A.month, &A.year);

AddTrip(&Travelist,A);

}

**else** **if** (decision == 2)

{

printf("Please enter the date for the trip you are looking for, order by date - month - year:\n");

fseek(stdin, 0, SEEK\_END);

scanf(" %d %d %d", &A.day, &A.month, &A.year);

AddPassenger(&Travelist, A);

}

**else** **if** (decision == 0)

{

printf("Thank you\n");

**break**;

}

printf("Please enter another choice: To Trips 1, To add passengers 2, To Exit 0\n");

scanf("%d", &decision);

}

printTravelAgencyDetails(&Travelist);

free(Travelist.trips);

Travelist.trips = **NULL**;

}

Trip\* SearchTrip(Agency\* agency, Date date)

{

**int** temp = agency->tripsnum;

**for** (Trip\* ptr=agency->trips;ptr<agency->trips+temp;ptr++)

{

**if** (ptr->tripdate.day == date.day && ptr->tripdate.month == date.month&&ptr->tripdate.year == date.year)

{

**return** ptr;

}

}

**return** **NULL**;

}

**void** AddTrip(Agency\* agency, Date date)

{

**if** (SearchTrip(agency,date))

{

printf("trip already exist\n");

**return**;

}

agency->tripsnum++;

**if** (agency->tripsnum == 1)

{

agency->trips = (Trip\*)malloc(**sizeof**(Trip));

**if** (agency->trips == **NULL**)

{

**return**;

}

}

**else**

{

agency->trips = (Trip\*)realloc(agency->trips, agency->tripsnum\***sizeof**(Trip));

**if** (agency->trips == **NULL**)

{

**return**;

}

}

setTrip(agency->trips);

}

**void** AddPassenger(Agency\* agency, Date date)

{

**int** Passenger, tmp = 0;

**if** (SearchTrip(agency, date))

{

printf("How many passengers do you want to enter:\n\n");

scanf("%d", &Passenger);

**if** (agency->trips->actualpassenger+Passenger < 10)

{

tmp = agency->trips->actualpassenger;

**for** (**int** i=0;i <Passenger;i++)

{

SetPassenger(&agency->trips->passenger[i+tmp]);

agency->trips->actualpassenger++;

}

}

**else**

printf("The trip is full\n");

}

}

**void** setTrip(Trip\* set)

{

printf("Please enter the trip name:\n");

fseek(stdin, 0, SEEK\_END);

gets(set->tripname);

printf("Please enter the destination:\n");

gets(set->destination);

printf("Please enter the date order by day - month - year:\n");

scanf("%d", &set->tripdate.day);

fseek(stdin, 0, SEEK\_END);

scanf("%d", &set->tripdate.month);

fseek(stdin, 0, SEEK\_END);

scanf("%d", &set->tripdate.year);

set->actualpassenger = 0;

}

**void** SetPassenger(Passenger\* passenger)

{

**char** name[10];

printf("Please enter your name:\n");

fseek(stdin, 0, SEEK\_END);

gets(name);

**long** **long** size = strlen(name);

passenger->passengername = (**char**\*)malloc((size+1)\***sizeof**(**char**));

**if** (!passenger->passengername)

{

**return**;

}

strcpy(passenger->passengername,name);

fseek(stdin, 0, SEEK\_END);

printf("Please insert your phone number: \n");

gets(passenger->phonenum);

}

**void** printTravelAgencyDetails(Agency\* agency)

{

**for** (**int** i = 0;i < agency->tripsnum;i++)

{

printTrip(&agency->trips[i]);

}

}

**void** printTrip(Trip\* trip)

{

printf("Trip Name: %s\n", trip->tripname);

printf("Trip Date: %d.%d.%d\n", trip->tripdate.day, trip->tripdate.month, trip->tripdate.year);

printf("Destination: %s\n", trip->destination);

printf("Actual Passenger: %d\n", trip->actualpassenger);

**for** (**int** i = 0; i < trip->actualpassenger; i++)

{

printf("Passenger Name: %s ", trip->passenger[i].passengername);

printf("and his Phone Number: %s\n", trip->passenger[i].phonenum);

}

}

תמונה שמכילה טקסט

התיאור נוצר באופן אוטומטי