#include <stdio.h>

#include <stdlib.h>

#include<string.h>

#include <ctype.h>

int pmt()

{

int i,id,upi,bank,login,bill,payment,msr,money;

char holder[20];

char card[20];

char validity[20];

char cvv[20];

printf("\nSELECT ONE OF THE PAYMENT OPTIONS\n");

printf("1)CREDIT/DEBIT\n2)UPI\n3)NET BANKING: ");

scanf("%d",&msr);

switch(msr)

{

card :

case 1: printf("\nCARD NUMBER: ");

scanf(" %[^\n]",card);

if(strlen(card)>16 || strlen(card)<16)

{

printf("Invalid card number");

goto card;

}

for(i=0; card[i] != '\0'; i++)

{

if(isdigit(card[i]) ==0)

{

printf("Invalid card number");

goto card;

}

}

holder :

printf("\nNAME OF THE CARD HOLDER: ");

scanf(" %[^\n]",holder);

if(strlen(holder)>20 || strlen(holder)<3)

{

printf("Invalid name");

goto holder;

}

for(i=0; holder[i] != '\0'; i++)

{

if(isalpha(holder[i]) ==0)

{

printf("Invalid card number");

goto holder;

}

}

validity :

printf("\nVALIDITY (MM/YY): ");

scanf(" %[^\n]",validity);

if(strlen(validity)>4|| strlen(card)<4)

{

printf("Invalid validity");

goto validity;

}

for(i=0; validity[i] != '\0'; i++)

{

if(isdigit(validity[i]) ==0)

{

printf("Invalid card number");

goto validity;

}

}

cvv :

printf("\nCVV: ");

scanf(" %[^\n]",cvv);

if(strlen(cvv)>3|| strlen(cvv)<3)

{

printf("Invalid name");

goto cvv;

}

for(i=0; cvv[i] != '\0'; i++)

{

if(isdigit(cvv[i]) ==0)

{

printf("Invalid card number");

goto cvv;

}

}

printf("Enter the amount on the recepit :");

scanf("%d",&money);

break;

case 2: printf("\nENTER UPI ID:");

scanf("%d",&id);

printf("\nOPEN THE UPI MOBILE APP AND APPROVE THE PAYMENT\n");

break;

case 3: printf("\nSELECT ONE OF THE BANK");

printf("\n1)AXIS BANK\n2)HDFC BANK\n3)ICIC BANK\n4)SBI BANK\n5)KOTAK BANK: ");

scanf("%d",&bank);

printf("\nENTER THE LOGIN ID: ");

scanf("%d",&login);

printf("\nPAY THE BILL\n");

break;

}

}

// Defining Structure

typedef struct mynode

{

int age;

int day;

int month;

int year;

int train;

int seat;

int CLASS;

char name[20];

char phn[20];

char aadhar[20];

char fcity[20];

char dcity[20];

char Train[20];

char Class[20];

char Seat[20];

} Node;

struct mynode tk[120];

void details(int);

int seat(int);

int cal(int, int, int);

void bill(int, int);

int ticket( int );

int calculation(int, int, int, int);

// Global variables

char source[20], des[20], train[40];

char station[40], cla[40];

int cost2=0,time1, time2, a[55];

int from,dest;

int result=1;

int i,j;

// Driver Code

int main()

{

int result,pass\_no,i;

printf("\n\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

printf("\n\n WELCOME TO FRIENDS BOOKING");

printf("\n\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

printf("\n\n THE PASSENGER MUST NEED COVID NEGATIVE TEST REPORT");

printf("\n\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

printf("\n\nTHE DATE MUST BE GREATER OR EQUAL TO CURRENT DATE");

day :

printf("\n\nENTER THE DATE OF THE TRIP: ");

scanf("%d",&tk[1].day);

if(tk[1].day<1|| tk[1].day>31)

{

system("clear");

printf("enter the date with in 1 to 31 only");

goto day;

}

printf("\nENTER THE MONTH OF THE TRIP: ");

scanf("%d",&tk[1].month);

if(tk[1].month<1 || tk[1].month>12)

{

system("clear");

printf("please enter month from 1 to 12 only");

goto day;

}

printf("\nENTER THE YEAR OF THE TRIP: ");

scanf("%d",&tk[1].year);

if(tk[1].year<2022)

{

system("clear");

printf("enter the year above 2022 only");

goto day;

}

selection :

from :

printf ("\nSELECT STARTING CITY:\n");

printf ("1) Vijaywada \n2) Hyderabad \n3) Delhi \n4) Mumbai \n5) Chennai \n6) Kolkata \n7) Benguluru \n8) Pune \n9) Viskapatnam \n");

scanf ("%d", &from);

if (from == 1) strcpy(tk[1].fcity,"Vijaywada");

else if (from == 2) strcpy(tk[1].fcity,"Hyderabad");

else if (from == 3) strcpy(tk[1].fcity,"Delhi");

else if (from == 4) strcpy(tk[1].fcity,"Mumbai");

else if (from == 5) strcpy(tk[1].fcity,"Chennai");

else if (from == 6) strcpy(tk[1].fcity,"Kolkata");

else if (from == 7) strcpy(tk[1].fcity,"Benguluru");

else if (from == 8) strcpy(tk[1].fcity,"Pune");

else if (from == 9)strcpy(tk[1].fcity,"Visakapatnam");

else {

system("clear");

printf("Invalid, please select the boarding city again");

goto from;

}

printf("\n The selected city = %s",tk[1].fcity);

dest :

printf ("\nSELECT THE DESTINATION:\n");

printf ("1) Vijayawada \n2) Hyderabad \n3) Delhi \n4) Mumbai \n5) Chennai \n6) Kolkata \n7) Benguluru \n8) Pune \n9) Visakapatnam \n");

scanf ("%d", &dest);

if (dest == 1) strcpy(tk[1].dcity,"Vijayawada");

else if (dest == 2) strcpy(tk[1].dcity,"Hyderabad");

else if (dest == 3) strcpy(tk[1].dcity,"Delhi");

else if (dest == 4) strcpy(tk[1].dcity,"Mumbai");

else if (dest == 5) strcpy(tk[1].dcity,"Chennai");

else if (dest == 6) strcpy(tk[1].dcity,"Kolkata");

else if (dest == 7) strcpy(tk[1].dcity,"Benguluru");

else if (dest == 8) strcpy(tk[1].dcity,"pune");

else if (dest == 9)strcpy(tk[1].dcity,"Visakapatnam");

else {

system("clear");

printf("Invalid, please select the destination city again");

goto dest;

}

printf("\n The selected city = %s",tk[1].dcity);

if(from == dest)

{

system("clear");

printf("Invalid,Both the boarding and destination are same, please select again");

goto selection;

}

else if(from!=dest)

{

if(from<=5)

{

if (dest<=5)

{

train :

printf ("\nAVAILABLE TRAINS ARE:");

printf ("\n1) Pinakini , 6:00am \n2) Rajadani , 10:00pm\n3) Intercity , 4:30pm\n");

scanf ("%d", &tk[1].train);

if (tk[1].train == 1)

{

strcpy(tk[1].Train,"Pinakini , 6:00am");

}

else if (tk[1].train == 2)

{

strcpy(tk[1].Train,"Rajadani , 10:00pm");

}

else if(tk[1].train == 3)

{

strcpy(tk[1].Train,"Interciry , 4:30pm");

}

else

{

system("clear");

printf("\nThe selected option is invalid,Plase select again");

goto train;

return 0;

}

}

if (dest>=6)

{

train1 :

printf ("\nAVAILABLE TRAINS ARE:");

printf ("\n1) Konark 7:40am\n2) Sangamithra 11:45pm\n3) Gangakaveri 9:50pm\n");

scanf ("%d", &tk[1].train);

if (tk[1].train == 1)

{

strcpy(tk[1].Train,"Konark 7:40am");

}

else if (tk[1].train == 2)

{

strcpy(tk[1].Train,"Sangamithra 11:45pm");

}

else if(tk[1].train == 3)

{

strcpy(tk[1].Train,"Gangakaveri 9:50pm");

}

else

{

system("clear");

printf("\nThe selected option is invalid,Plase select again");

goto train1;

return 0;

}

}

}

else

{

if (dest<=5)

{

train2 :

printf ("\nAVAILABLE TRAINS ARE:");

printf ("\n1) Krishna 11:00am\n2) GrandTrunk 2:30am\n3) MumbaiLLT 1:25pm\n");

scanf ("%d", &tk[1].train);

if (tk[1].train == 1)

{

strcpy(tk[1].Train,"Krishna 11:00am");

}

else if (tk[1].train == 2)

{

strcpy(tk[1].Train,"GrandTrunk 2:30am");

}

else if(tk[1].train ==3)

{

strcpy(tk[1].Train,"MumbaiLLT 1:25pm");

}

else

{

system("clear");

printf("\nThe selected option is invalid,Plase select again");

goto train2;

return 0;

}

}

if (dest>=6)

{

train3 :

printf ("\nAVAILABLE TRAINS ARE:");

printf ("\n1) Udayan 8:40pm \n2) Mysuru 10:45pm\n3) Rajkot 7:00am\n");

scanf ("%d", &tk[1].train);

if (tk[1].train == 1)

{

strcpy(tk[1].Train,"Udayan 8:40pm ");

}

else if (tk[1].train == 2)

{

strcpy(tk[1].Train,"Mysuru 10:45pm");

}

else if(tk[1].train)

{

strcpy(tk[1].Train,"Rajkot 7:00am");

}

else

{

system("clear");

printf("\nThe selected option is invalid,Plase select again");

goto train3;

return 0;

}

}

}

printf("ENTER THE NUMBER OF TICKETS TO BE BOOKED:\n");

scanf("%d",&pass\_no);

for(i=1;i<=pass\_no;i++){

int Chaircar = 100,ACchaircar=200,Sleeper =300,ACsleeper3a=400,ACsleeper2a=500,ACsleeper1a=600;

CLass :

printf("\npassenger no.%d",i);

printf ("\nCHOOSE THE CLASS OF TRAINS:\n");

printf("1) CHAIR CAR - %d \n2) A/C CHAIR CAR - %d\n3) SLEEPER - %d\n4) A/C SLEEPER 3A - %d\n5) A/C SLEEPER 2A - %d\n6) A/C SLEEPER 1A - %d\n",Chaircar,ACchaircar,Sleeper,ACsleeper3a,ACsleeper2a,ACsleeper1a);

scanf("%d",&tk[1].CLASS);

if((tk[1].CLASS) <= 2)

{

if((tk[1].CLASS) == 1)

{

strcpy((tk[1].Class)," CHAIR CAR");

}

else if((tk[1].CLASS)==2)

{

strcpy((tk[1].Class)," A/C CHAIR CAR");

}

}

else

{

if((tk[1].CLASS) == 3)

{

strcpy(tk[1].Class," SLEEPR");

}

else if(tk[1].CLASS == 4)

{

strcpy(tk[1].Class," A/C SLEEPER 3A");

}

else if(tk[1].CLASS==5)

{

strcpy(tk[1].Class," A/C SLEEPER 2A");

}

else if(tk[1].CLASS==6)

{

strcpy(tk[1].Class," A/C SLEEPER 1A");

}

else

{

system("clear");

printf("\nThe selected option is invalid,Plase select again");

goto CLass;

return 0;

}

}

seat :

printf ("\nCHOOSE THE PREFERENCE OF SEATING:");

printf("\n1) LOWER\n2) MIDDLE \n3) UPPER \n4) SIDE LOWER\n5) SIDE UPPER\n");

scanf ("%d", &tk[1].seat);

if (tk[1].seat == 1)

{

strcpy(tk[1].Seat,"LOWER");

}

else if (tk[1].seat == 2)

{

strcpy(tk[1].Seat,"MIDDLE");

}else if(tk[1].seat == 3)

{

strcpy(tk[1].Seat,"UPPER");

}

else if (tk[1].seat == 4)

{

strcpy(tk[1].Seat,"SIDE LOWER");

}

else if(tk[1].seat == 5)

{

strcpy(tk[1].Seat,"SIDE UPPER");

}

else if(tk[1].seat>5)

{

system("clear");

printf("\nThe selected option is invalid,please select again\n");

goto seat;

return 0;

}

//cost2=calulation(dest,from,tk[1].age,tk[1].CLASS);

ticket(cost2);

}

}

return 0;

}

int ticket(int cost2)

{

name:

printf ("Enter name of passenger:");

fflush(stdin);

scanf(" %[^\n]",tk[1].name);

if(strlen (tk[1].name)>20 || strlen(tk[1].name)<3)

{

system("clear");

printf("\n Invalid ,Max range of first name is 20 & min is 2\n");

goto name;

}

for(i=0; tk[1].name[i] != '\0'; i++)

{

if(isalpha(tk[1].name[i]) ==0)

{

system("clear");

printf("\n Invalid ,name contains invalid characher \n");

goto name;

}

}

age :

printf("\nThe age must be postive not be negative");

printf ("\n\nEnter age of poassenger:");

scanf (" %d",&tk[1].age);

phn :

printf ("\n\nEnter contact number of passenger :");

fflush(stdin);

scanf(" %[^\n]",tk[1].phn);

if(strlen(tk[1].phn)>10||strlen(tk[1].phn)<10)

{

system("clear");

printf("ENTER A VALID PHONE NUMBER\n");

goto phn;

}

for(i=0; tk[1].phn[i] != '\0'; i++)

{

if(isdigit(tk[1].phn[i]) ==0)

{

system("clear");

printf("\n Invalid ,phone number contains invalid characher \n");

goto phn;

}

}

aadhar :

printf ("\n\nEnter aadhar number of passenger :");

fflush(stdin);

scanf(" %[^\n]",tk[1].aadhar);

if(strlen(tk[1].aadhar)>12||strlen(tk[1].aadhar)<12)

{

printf("ENTER A VALID AADHAR NUMBER\n");

goto aadhar;

}

for(i=0; tk[1].aadhar[i] != '\0'; i++)

{

if(isdigit(tk[1].aadhar[i]) ==0)

{

system("clear");

printf("\n Invalid ,AADHAR NUMBER contains invalid characher \n");

goto aadhar;

}

}

printf("\n\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

printf ("\n\t\t\t\tRECEIEPT");

printf("\n\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

printf("\n\nThe name of the passenger is \t\t\t:%s",tk[1].name);

printf("\n\nThe age of the passenger is \t\t\t:%d",tk[1].age);

printf("\n\nThe contact number of passenger is \t\t:%s",tk[1].phn);

printf("\n\nThe aadhar number of passenger is \t\t:%s",tk[1].aadhar);

printf("\n\nThe selected date is \t\t\t\t:%d-%d-%d",tk[1].day,tk[1].month,tk[1].year);

printf("\n\nSelected staring city is\t\t\t:%s",tk[1].fcity);

printf("\n\nselected destination is\t\t\t\t:%s",tk[1].dcity);

printf("\n\nThe selected train \t\t\t\t:%s",tk[1].Train);

printf("\n\nThe selected class of seat \t\t\t:%s",tk[1].Class);

printf("\n\nThe selcted preference of seating\t\t:%s",tk[1].Seat);

printf ("\n\nCOST OF TRAVELLING \t\t\t\t:%d\n\n",calculation(dest,from,tk[1].age,tk[1].CLASS));

pmt();

}

int calculation(int dest,int from,int age,int CLASS)

{

int a,cost1,cost2;

a= dest - from;

if(a<0)

{

a = a\*(-1);

}

cost1 =(a \* 100) + (CLASS \* 100);

if (age<=5)

{

cost2 = 0;

}

else if (age>5 && age<60)

{

cost2 = cost1;

}

else

{

cost2 = cost1-200;

}

return (cost2);

}