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**Contents**

* *Introduction*
* *Working Environment*
* *System Analysis*
* *Header Files*
* *System Design*
* *Source Code*
* *Output Screens*
* *Conclusion*
* *Bibliography*

**Introduction**

*This project is about air ticket reservation system, allowing the user to book ticket at ease, which is user friendly, developed using C++ which is a common OOP and GUI language.*

*It includes options like ADD, MODIFY, and DELETE ….etc which can be accessed ONLY by the reservation company (2 layer protection – pattern lock & password) to make the desired changes to the available flight details and add or delete an existing flight.*

*It also includes features such as RESERVATION, CANCELLATION, VIEW a ticket which too comes with full protection (only the customer who has booked can delete his/her ticket).*

**Working Environment**

**HARDWARE**

Processor : INTEL i3 2120

Speed : 3.30 GHZ

RAM : 1.96 GB

Hard Disk Capacity : 500 GB

Keyboard : Logitech PS/II

Mouse : Microsoft Optical

**SOFTWARE**

Operating system : UBUNTU 14.04 lts

Programming Language : DOS BOX

EMULATOR

**System Analysis**

**Advantages**

1. User friendly.
2. Successfull implementation of real world features like booking, cancellation, viewing a ticket.
3. Highest possible security both for company deatails and customer details.
4. Double layer security for company details (pattern lock using mouse & password).
5. Only the customer with the ticket can delete the ticket.
6. Looks good with high end graphics.
7. Includes mouse.
8. Customers can select the seat they required.
9. Large no of flights (1900).
10. Large no of airports (20).
11. Includes some videos (with sound) for fun.
12. Company can edit/add/delete a flight.
13. All the class variables are in private (so accidental modification is prevented successfully).
14. Easy to update and have used the principles of code reusability.

**Disadvantages**

1. Lengthy source code and requires some memory for files.
2. Can hack the pattern lock.
3. Can get hanged at some points (if instructions are not followed).
4. Real time date is accessed from system date but it still shows the dates which have passed.
5. Dates count upto 31 even though some months donot have 31 dates.

**Header Files**

*fstream.h*

*string.h*

*conio.h*

*stdio.h*

*stdlib.h*

*time.h*

*graphics.h*

*iomanip.h*

*dos.h*

**System Design**

**Files used:**

plane - a

tplane - tempa

booked - b

tbooked - tempb

client - c

tclient - tempc

base - e

**Classes used:**

class aeroplane - oa

class bookings - ob

class customer - oc

class enter - oe

**Functions used:**

**class aeroplane**

char\* returnflightname();

char\* returnto();

char\* returnfrom();

long returnarrtime();

long returndepttime();

long\* returncharge();

void update();

void readflight(char\*,char\*);

void displayflights1();

**class bookings**

char\* returnflightno();

int\* returnseatno();

void enterflightno();

int\* modifyseatno(int\*,int\*);

void createflightno(int);

void enterseatno(int\*);

bookings();

**class customer**

char\* returnrequiredfrom();

char\* returnrequiredto();

char\* returnrequiredflightno();

char\* returnrequireddate();

long returncustomerno();

long returnphoneno();

int returnnoofpassengers();

int returnrequiredclass();

int coordinates(int,int,int\*);

void entercustomerno();

void displayticket();

void readcustomer(int\*);

void enterrequiredflightno(char\* tflnm);

void assign(int x);

void selection();

char\* displayflights(int);

**class enter**

long returnrate();

int returntraveltime();

int returnnoofairports();

char (\* returnairport())[50];

void enterairports();

void enterrate();

void disp();

**Non member funtions**

void show(char\* a,int x,int y);

void showl(char\* a,int x,int y);

void show(int &a,int x,int y);

void show10(long &a,int x,int y);

void box();

void loading();

void company();

int callmouse();

void mouseposi(int &xpos,int &ypos,int &click);

int mousehide();

void setposi(int &xpos,int &ypos);

void load();

void clickeffect(int x,int y);

int coordinatew(int x,int y);

int coordinatecn(int x,int y);

int coordinateca(int x,int y);

int coordinatecam(int x,int y);

int coordinatecay(int x,int y);

int coordinatef(int x,int y,int s);

int lockcoordinate10(int x,int y);

int lockcoordinate9(int x,int y);

int lockcoordinate8(int x,int y);

int lockcoordinate7(int x,int y);

int lockcoordinate6(int x,int y);

int lockcoordinate5(int x,int y);

int lockcoordinate4(int x,int y);

int lockcoordinate3(int x,int y);

int lockcoordinate2(int x,int y);

int lockcoordinate1(int x,int y);

int welcome();

int coordinate(int x,int y,int \*bs);

void display(int \*bs);

void seatsavailable(int \*s);

void bkflight();

int coordinatefs(int x,int y,int j);

void bank();

void book();

int coordinatect(int x,int y);

int cancel(int z);

void view();

void exit();

void onetime();

void main();

int coordinatec(int x,int y);

**SOURCE-CODE**

#include<fstream.h>

#include<string.h>

#include<conio.h>

#include<stdio.h>

#include<stdlib.h>

#include<time.h>

#include<graphics.h>

#include<iomanip.h>

#include<dos.h>

void show(char\* a,int x,int y)

{

for(int i=0;i<50;i++,a++)

{

\*a=getch();

if(int(\*a)==13)

{

\*a='\0';

break;

}

a[1]='\0';

outtextxy(x+i\*8,y,a);

}

a=a-i;

}

void showl(char\* a,int x,int y)

{

for(int i=0;i<100;i++,a++)

{

\*a=getch();

if(\*a=='.')

{

\*a='\0';

break;

}

if(int(\*a)==13)

{

y=y+10;

i=-1;

\*a='\n';

}

else

{

a[1]='\0';

outtextxy(x+i\*8,y,a);

}

}

a=a-i;

}

void show(int &a,int x,int y)

{

char \*z;

z=NULL;

z[0]=' ';

z[1]=' ';

int d=0,e=0;

\*z=getch();

outtextxy(x,y,z);

d=int(\*z)-48;

z++;

\*z=getch();

outtextxy(x+8,y,z);

e=int(\*z)-48;

a=d\*10+e;

}

void show10(long &a,int x,int y)

{

char \*z,buf[11];

z=buf;

a=0;

for(int i=0;i<11;i++)

buf[i]=' ';

buf[i]='\0';

int v[15];

for(i=0;i<11;i++,z++)

{

\*z=getch();

if(int(\*z)==13)

break;

v[i]=int(\*z)-48;

a=a\*10+v[i];

outtextxy(x+i\*8,y,z);

}

}

class aeroplane

{

char flightname[50],from[50],to[50];

long charge[3],arrtime,depttime;

public:

char\* returnflightname() { return flightname; }

char\* returnto() { return to; }

char\* returnfrom() { return from; }

long returnarrtime() { return arrtime; }

long returndepttime() { return depttime; }

long\* returncharge() { return charge; }

void update();

void readflight(char\*,char\*);

void displayflights1()

{

cout<<"\nFLIGHT NAME - "<<flightname;

cout<<"\nFROM - "<<from;

cout<<"\nTO - "<<to;

cout<<"\nDEPARTURTURE TIME - "<<depttime;

cout<<"\nARRIVAL TIME - "<<arrtime;

cout<<"\nCHARGE[First] - "<<charge[2];

cout<<"\nCHARGE[Bussiness] - "<<charge[1];

cout<<"\nCHARGE[Economic] - "<<charge[0];

}

}oa;

class bookings

{

char flightno[50];

int seatno[4];

public:

char\* returnflightno() { return flightno;}

int\* returnseatno() { return seatno; }

void enterflightno();

int\* modifyseatno(int\*,int\*);

void createflightno(int);

void enterseatno(int\*);

bookings();

}ob;

class customer

{

int requiredclass,noofpassengers,age[4];

char name[4][25],address[100],requiredfrom[50],requiredto[50],requiredflightno[50],requireddate[50],gender[4][10];

long customerno,phoneno;

time\_t ptime;

public:

char\* returnrequiredfrom() { return requiredfrom; }

char\* returnrequiredto() { return requiredto; }

char\* returnrequiredflightno(){ return requiredflightno;}

char\* returnrequireddate() { return requireddate; }

long returncustomerno() { return customerno; }

long returnphoneno() { return phoneno; }

int returnnoofpassengers() { return noofpassengers; }

int returnrequiredclass() { return requiredclass; }

int coordinates(int,int,int\*);

void entercustomerno()

{

setbkcolor(9);

settextstyle(2,0,5);

setcolor(1);

setfillstyle(1,15);

show10(customerno,205,100);

setcolor(15);

}

void displayticket();

void readcustomer(int\*);

void enterrequiredflightno(char\* tflnm);

void assign(int x)

{

if(!x) customerno=0;

else

{

randomize();

customerno=99\*(random(255)+1);

}

ptime=time(NULL);

}

void selection();

char\* displayflights(int);

}oc;

void customer :: enterrequiredflightno(char\* tflnm)

{

for(int i=0;i<50;i++)

requiredflightno[i]='\0';

strcat(requiredflightno,requireddate);

strcat(requiredflightno,tflnm);

}

char\* customer::displayflights(int i)

{

ob.createflightno(1);

char at[10],dt[10],ch1[10],ch2[10],ch3[10];

for(int j=0;j<10;j++)

{

at[i] ='\0';

dt[i] ='\0';

ch1[i]='\0';

ch2[i]='\0';

ch3[i]='\0';

}

setcolor(1);

rectangle(10,50+i\*60,620,100+i\*60);

floodfill(11,51+i\*60,1);

char \*tflnm;

tflnm=oa.returnflightname();

outtextxy(15,60+i\*60,tflnm);

sprintf(dt,"%ld",oa.returndepttime());

sprintf(at,"%ld",oa.returnarrtime());

sprintf(ch1,"%ld",oa.returncharge()[0]);

sprintf(ch2,"%ld",oa.returncharge()[1]);

sprintf(ch3,"%ld",oa.returncharge()[2]);

outtextxy(150,60+i\*60,dt);

outtextxy(300,60+i\*60,at);

outtextxy(400,60+i\*60,ch3);

outtextxy(450,60+i\*60,ch2);

outtextxy(550,60+i\*60,ch1);

return tflnm;

}

class enter

{

int noofairports,traveltime;

char airport[20][50];

long rate;

public:

long returnrate() { return rate; }

int returntraveltime() { return traveltime; }

int returnnoofairports() { return noofairports; }

char(\* returnairport())[50] { return airport; }

void enterairports();

void enterrate();

void disp();

}oe;

void box()

{

rectangle(1,1,635,475);

rectangle(2,2,634,474);

rectangle(3,3,633,473);

}

void loading()

{

settextstyle(2,0,5);

for(int i=0;i<=720;++i)

{

setcolor(2);

for(int j=0;j<4;j++)

arc(300,300,i-120,i,35-j);

delay(10);

setcolor(0);

for(j=0;j<4;j++)

arc(300,300,i-120,i,35-j);

setcolor(4);

outtextxy(273,295,"Loading");

}

}

void company()

{

int gdriver = DETECT ,gmode;

initgraph(&gdriver, &gmode, "C:\\TurboC3\\BGI");

setcolor(11);

settextstyle(2,0,7);

for(int j=0;j<5;j++)

for(int i=0;i<14;i++)

{

setfillstyle(1,i);

outtextxy(100,400,"ACCESSING COMPANY DATABASE");

setcolor(15);

line(0,380,getmaxx(),380);

floodfill(0,0,15);

delay(100);

}

cleardevice();

j=3;

char pass[9]="password",id[5]="user",pin[15],usr[15];

setcolor(11);

setbkcolor(BLACK);

time\_t ptime;

begin:

setcolor(11);

settextstyle(2,0,5);

box();

ptime=time(NULL);

outtextxy(420,10,ctime(&ptime));

gotoxy(36,12);

outtextxy(190,175," Username :");

gets(usr);

gotoxy(36,13);

outtextxy(198,191,"Password :");

for(i=0;;i++)

{

pin[i]=getch();

if(pin[i]==13)break;

cout<<"\*";

}

pin[i]='\0';

if(strcmpi(pass,pin)==0&&strcmpi(id,usr)==0)

{

textcolor(11);

outtextxy(240,220,"Access Granted!");

delay(1000);

loading();

cleardevice();

outtextxy(420,10,ctime(&ptime));

setcolor(11);

settextstyle(2,0,20);

outtextxy(150,200,"Login Successfull");

outtextxy(20,250,"Ready To Modify Database");

getch();

closegraph();

oa.update();

}

else

{

if(j>0)

{

outtextxy(8,240,"INCORRECT USERNAME OR PASSWORD");

gotoxy(2,17);

cout<<"You have "<<j<<" tries left";

delay(1000);

j--;

cleardevice();

}

else if(!j)

{

outtextxy(145,420,"Something went wrong.Please try again later");

getch();

exit(0);

}

goto begin;

}

closegraph();

}

union REGS in,out;

int callmouse()

{

in.x.ax=1;

int86(51,&in,&out);

return 1;

}

void mouseposi(int &xpos,int &ypos,int &click)

{

in.x.ax=3;

int86(51,&in,&out);

click=out.x.bx;

xpos=out.x.cx;

ypos=out.x.dx;

}

int mousehide()

{

in.x.ax=2;

int86(51,&in,&out);

return 1;

}

void setposi(int &xpos,int &ypos)

{

in.x.ax=4;

in.x.cx=xpos;

in.x.dx=ypos;

int86(51,&in,&out);

}

void load()

{

int gd=DETECT,gm;

initgraph(&gd,&gm,"C:\\TurboC3\\BGI");

int j=-50;

int k,l;

setbkcolor(15);

settextstyle(3,0,1);

setcolor(8);

for(int p=0;p<6;p++)

{

if(p==0){k=200;l=450;}

if(p==1){k=400;l=0;}

if(p==2){k=200;l=200;}

if(p==3){k=400;l=400;}

if(p==4){k=100;l=10;}

if(p==5){k=0;l=100;}

setfillstyle(1,YELLOW);

circle(350,120,17);

floodfill(350,120,8);

setfillstyle(1,11);

arc(52+k,40+l,150,320,10);

arc(70+k,45+l,150,350,10);

arc(87+k,40+l,180,350,10);

arc(42+k,30+l,75,270,10);

arc(102+k,35+l,220,70,10);

arc(102+k,20+l,320,140,10);

arc(52+k,20+l,0,180,10);

arc(70+k,20+l,0,150,10);

arc(85+k,18+l,0,150,10);

floodfill(85+k,18+l,8);

}

settextstyle(7,0,4);

setcolor(BLUE);

outtextxy(100,5,"Welcome To EMIRATES");

outtextxy(130,50,"online booking portal");

settextstyle(2,0,7);

setcolor(8);

for(int i=-250;i<700;i=i+3)

{

for(int z=0;z<2;z++)

{

if(z==0) setcolor(4);

if(z==1) setcolor(15);

outtextxy(100+i,448-j,"EMIRATES");

if(z==0) setcolor(8);

line(0+i,440-j,220+i,440-j); //top

line(50+i,470-j,133+i,470-j); //bottom

line(173+i,470-j,220+i,470-j); //bottom

line(50+i,470-j,0+i,440-j); //left

line(220+i,470-j,270+i,455-j); //bottom right

line(220+i,440-j,270+i,455-j); //top right

line(20+i,445-j,220+i,445-j); //top window

line(33+i,450-j,235+i,450-j); //bottom window

line(20+i,445-j,33+i,450-j); //left window

line(220+i,445-j,235+i,450-j); //right window

line(180+i,440-j,100+i,400-j); //top right wing

line(140+i,440-j,60+i,400-j); //top left wing

line(100+i,400-j,60+i,400-j); //top top wing

line(185+i,460-j,120+i,520-j); //bottom right wing

line(145+i,460-j,80+i,520-j); //bottom left wing

line(120+i,520-j,80+i,520-j); //bottom bottom wing

arc(52+i,400-j,210,270,40); //bottom tail

arc(-20+i,435-j,20,90,40); //top tail

line(0+i,440-j,-20+i,395-j); //tail

sound(j+200);

delay(10);

nosound();

}

j++;

}

closegraph();

}

void clickeffect(int x,int y)

{

settextstyle(2,0,5);

setcolor(15);

outtextxy(300,450,"please wait");

sound(300);

mousehide();

setfillstyle(1,7);

floodfill(x,y,1);

callmouse();

delay(100);

nosound();

delay(500);

mousehide();

setfillstyle(1,15);

floodfill(x,y,1);

callmouse();

setcolor(1);

}

int coordinatew(int x,int y)

{

int a,z=1;

char b[2];

for(int i=1;i<3;i++)

{

for(int j=1;j<3;j++)

{

a=0;

if(x>((i\*250)-150))

if(y>((j\*150)-50))

if(x<(50+(i\*250)))

if(y<(50+(j\*150)))

{

a=1;

clickeffect(45+(i\*250),45+(j\*150));

sleep(1);

return z;

}

if(!a) z++;

}

}

if(!a) z=0;

return z;

}

int coordinatecn(int x,int y)

{

int z=1,a=0;

for(int i=0;i<4;i++)

{

if(x>(300+i\*63))

if(y>223)

if(x<(363+i\*63))

if(y<243)

{

a=1;

clickeffect((301+i\*63),225);

}

if(!a) z++;

}

if(!a) z=0;

return z;

}

int coordinateca(int x,int y)

{

int z=1,a=0,k=1;

for(int i=0;i<5;i++)

for(int j=0;j<7;j++)

{

if(k<32)

{

if(x>(300+j\*25))

if(y>(275+i\*25))

if(x<(325+j\*25))

if(y<(295+i\*25))

{

a=1;

clickeffect((301+j\*25),(276+i\*25));

}

if(!a) z++;

k++;

}

}

if(!a) z=0;

return z;

}

int coordinatecam(int x,int y)

{

int z=1,a=0;

for(int i=0;i<6;i++)

for(int j=0;j<2;j++)

{

if(x>(340+j\*90))

if(y>(275+i\*20))

if(x<(430+j\*90))

if(y<(295+i\*20))

{

a=1;

clickeffect((341+j\*90),(276+i\*20));

}

if(!a) z++;

}

if(!a) z=0;

return z;

}

int coordinatecay(int x,int y)

{

int a=0,z=1;

for(int i=0;i<5;i++)

{

if(x>500)

if(y>(275+i\*20))

if(x<550)

if(y<(295+i\*20))

{

a=1;

clickeffect(501,(276+i\*20));

}

if(!a) z++;

}

if(!a) z=0;

return z;

}

int coordinatef(int x,int y,int s)

{

int z=1,a=0;

if(s==1)

for(int i=0;i<oe.returnnoofairports();i++)

{

if(x>555)

if(y>(60+i\*20))

if(x<(getmaxx()-2))

if(y<(80+i\*20))

{

a=1;

clickeffect(556,(61+i\*20));

}

if(!a) z++;

}

if(s==2)

for(int i=0;i<oe.returnnoofairports();i++)

{

if(x>555)

if(y>(80+i\*20))

if(x<(getmaxx()-2))

if(y<(100+i\*20))

{

a=1;

clickeffect(556,(81+i\*20));

}

if(!a) z++;

}

if(!a) z=0;

return z;

}

int customer::coordinates(int x,int y,int \*cntrl)

{

int z=1,a=0,d;

char c[5];

for(int i=0;i<3;i++)

{

if(x>300)

if(y>(100+i\*50))

if(x<550)

if(y<(120+i\*50))

a=1;

if(!a) z++;

}

if(!a)

for(i=0;i<3;i++)

{

if(x>300+i\*100)

if(y>250)

if(x<350+i\*100)

if(y<270)

a=1;

if(!a) z++;

}

if(!a)

{

if(x>(getmaxx()-100))

if(y>(getmaxy()-25))

if(x<(getmaxx()-5))

if(y<(getmaxy()-5))

a=1;

if(!a) z++;

}

if(a)

{

setcolor(1);

setfillstyle(1,15);

if(z==1)

{

cntrl[z-1]=1;

int cl=0;

fstream e;

e.open("base",ios::in|ios::out|ios::binary);

e.read((char\*)&oe,sizeof(oe));

e.close();

char (\*stations)[50]=oe.returnairport();

mousehide();

for(i=0;i<oe.returnnoofairports();i++)

{

rectangle(555,60+i\*20,getmaxx()-2,80+i\*20);

floodfill(556,61+i\*20,1);

outtextxy(560,60+i\*20,stations[i]);

}

callmouse();

do

{

mouseposi(x,y,cl);

char a[2];

if(cl==1)

{

mousehide();

a[0]=char(219);

setcolor(15);

for(i=0;i<70;i++)

for(int j=0;j<5;j++)

outtextxy(350+i,102+j,a);

setcolor(1);

callmouse();

d=coordinatef(x,y,1);

if(d)

{

strcpy(requiredfrom,stations[d-1]);

outtextxy(350,102,requiredfrom);

setcolor(15);

outtextxy(300,450,"please wait");

delay(500);

setcolor(9);

setfillstyle(1,9);

mousehide();

setcolor(9);

setfillstyle(1,9);

for(i=0;i<oe.returnnoofairports();i++)

{

outtextxy(560,60+i\*20,stations[i]);

floodfill(556,61+i\*20,1);

}

for(i=0;i<oe.returnnoofairports();i++)

rectangle(555,60+i\*20,getmaxx()-2,80+i\*20);

callmouse();

outtextxy(300,450,"please wait");

setcolor(15);

break;

}

}

}while(1);

}

if(z==2)

{

cntrl[z-1]=1;

int cl=0;

fstream e;

e.open("base",ios::in|ios::out|ios::binary);

e.read((char\*)&oe,sizeof(oe));

e.close();

char (\*stations)[50]=oe.returnairport();

mousehide();

for(i=0;i<oe.returnnoofairports();i++)

{

rectangle(555,80+i\*20,getmaxx()-2,100+i\*20);

floodfill(556,81+i\*20,1);

outtextxy(560,80+i\*20,stations[i]);

}

callmouse();

do

{

mouseposi(x,y,cl);

char a[2];

if(cl==1)

{

mousehide();

a[0]=char(219);

setcolor(15);

for(i=0;i<70;i++)

for(int j=0;j<5;j++)

outtextxy(350+i,152+j,a);

setcolor(1);

callmouse();

d=coordinatef(x,y,2);

if(d)

{

strcpy(requiredto,stations[d-1]);

outtextxy(350,152,requiredto);

setcolor(15);

outtextxy(300,450,"please wait");

delay(500);

setcolor(9);

setfillstyle(1,9);

mousehide();

setcolor(9);

setfillstyle(1,9);

for(i=0;i<oe.returnnoofairports();i++)

{

outtextxy(560,80+i\*20,stations[i]);

floodfill(556,81+i\*20,1);

}

for(i=0;i<oe.returnnoofairports();i++)

rectangle(555,80+i\*20,getmaxx()-2,100+i\*20);

callmouse();

outtextxy(300,450,"please wait");

setcolor(15);

break;

}

}

}while(1);

}

if(z==3)

{

cntrl[z-1]=1;

mousehide();

for(i=0;i<4;i++)

{

rectangle(300+i\*63,223,363+i\*63,243); //no of customers

floodfill(305+i\*62,230,1);

sprintf(c,"%d",i+1);

outtextxy(350+i\*63,223,c);

}

callmouse();

int cl=0;

do

{

cl=0;

mouseposi(x,y,cl);

if(cl==1)

{

c[0]=char(219);

setcolor(15);

outtextxy(340,202,c);

outtextxy(341,202,c);

setcolor(1);

d=coordinatecn(x,y);

if(d)

{

noofpassengers=d;

sprintf(c,"%d",noofpassengers);

outtextxy(340,202,c);

setcolor(15);

outtextxy(300,450,"please wait");

delay(500);

setcolor(9);

setfillstyle(1,9);

mousehide();

d++;

for(i=0;i<4;i++)

{ //no of customers

sprintf(c,"%d",i+1);

outtextxy(350+i\*63,223,c);

floodfill(304+i\*62,230,1);

}

for(i=0;i<4;i++)

{

rectangle(300+i\*63,223,363+i\*63,243);

}

callmouse();

outtextxy(300,450,"please wait");

setcolor(15);

break;

}

}

}while(1);

}

if(z==4)

{

cntrl[z-1]=1;

int k=1;

mousehide();

for(i=0;i<5;i++)

for(int j=0;j<7;j++)

{

if(k<32)

{

rectangle(300+j\*25,275+i\*25,325+j\*25,295+i\*25);

floodfill(310+j\*25,276+i\*25,1);

sprintf(c,"%d",k);

outtextxy(305+j\*25,280+i\*25,c);

k++;

}

}

callmouse();

int cl;

do

{

cl=0;

mouseposi(x,y,cl);

if(cl==1)

{

c[0]=char(219);

setcolor(15);

for(i=0;i<10;i++)

outtextxy(310+i,252,c);

setcolor(1);

d=coordinateca(x,y);

if(d)

{

char c3[3];

sprintf(c3,"%d",d);

sprintf(requireddate,"%d",d);

if(d<10)

{

requireddate[1]=requireddate[0];

requireddate[0]='0';

}

outtextxy(310,252,c3);

setcolor(15);

outtextxy(300,450,"please wait");

delay(500);

setcolor(9);

setfillstyle(1,9);

mousehide();

int k=1;

setcolor(9);

setfillstyle(1,9);

for(i=0;i<5;i++)

for(int j=0;j<7;j++)

{

if(k<32)

{

sprintf(c,"%d",k);

outtextxy(305+j\*25,280+i\*25,c);

floodfill(310+j\*25,276+i\*25,1);

k++;

}

}

setcolor(9);

k=0;

for(i=0;i<5;i++)

for(j=0;j<7;j++)

{

if(k<32)

{

rectangle(300+j\*25,275+i\*25,325+j\*25,295+i\*25);

k++;

}

}

callmouse();

outtextxy(300,450,"please wait");

setcolor(15);

break;

}

}

}while(1);

}

if(z==5)

{

cntrl[z-1]=1;

int cl=0;

int k=1;

char c9[20];

mousehide();

for(i=0;i<6;i++)

for(int j=0;j<2;j++)

{

rectangle(340+j\*90,275+i\*20,430+j\*90,295+i\*20);

floodfill(341+j\*90,276+i\*20,1);

switch(k)

{

case 1 :strcpy(c9,"january");break;

case 2 :strcpy(c9,"february");break;

case 3 :strcpy(c9,"march");break;

case 4 :strcpy(c9,"april");break;

case 5 :strcpy(c9,"may");break;

case 6 :strcpy(c9,"june");break;

case 7 :strcpy(c9,"july");break;

case 8 :strcpy(c9,"august");break;

case 9 :strcpy(c9,"september");break;

case 10:strcpy(c9,"october");break;

case 11:strcpy(c9,"november");break;

case 12:strcpy(c9,"december");break;

}

outtextxy(348+j\*100,275+i\*20,c9);

k++;

}

callmouse();

do

{

mouseposi(x,y,cl);

char a[2];

if(cl==1)

{

mousehide();

a[0]=char(219);

setcolor(15);

for(i=0;i<30;i++)

for(int j=0;j<5;j++)

outtextxy(405+i,252+j,a);

setcolor(1);

callmouse();

d=coordinatecam(x,y);

if(d)

{

char c1[3];

sprintf(c1,"%d",d);

if(d<10)

{

requireddate[2]='0';

requireddate[3]=c1[0];

}

if(d>9)

{

requireddate[2]=c1[0];

requireddate[3]=c1[1];

}

switch(d)

{

case 1 :strcpy(c1,"jan");break;

case 2 :strcpy(c1,"feb");break;

case 3 :strcpy(c1,"mar");break;

case 4 :strcpy(c1,"apr");break;

case 5 :strcpy(c1,"may");break;

case 6 :strcpy(c1,"jun");break;

case 7 :strcpy(c1,"jul");break;

case 8 :strcpy(c1,"aug");break;

case 9 :strcpy(c1,"sep");break;

case 10:strcpy(c1,"oct");break;

case 11:strcpy(c1,"nov");break;

case 12:strcpy(c1,"dec");break;

}

outtextxy(410,252,c1);

setcolor(15);

outtextxy(300,450,"please wait");

delay(500);

setfillstyle(1,9);

mousehide();

setcolor(9);

setfillstyle(1,9);

int k=1;

for(i=0;i<6;i++)

for(int j=0;j<2;j++)

{

switch(k)

{

case 1 :strcpy(c9,"january");break;

case 2 :strcpy(c9,"february");break;

case 3 :strcpy(c9,"march");break;

case 4 :strcpy(c9,"april");break;

case 5 :strcpy(c9,"may");break;

case 6 :strcpy(c9,"june");break;

case 7 :strcpy(c9,"july");break;

case 8 :strcpy(c9,"august");break;

case 9 :strcpy(c9,"september");break;

case 10:strcpy(c9,"october");break;

case 11:strcpy(c9,"november");break;

case 12:strcpy(c9,"december");break;

}

outtextxy(348+j\*100,275+i\*20,c9);

floodfill(341+j\*90,276+i\*20,1);

k++;

}

for(i=0;i<6;i++)

for(j=0;j<2;j++)

rectangle(340+j\*90,275+i\*20,430+j\*90,295+i\*20);

callmouse();

outtextxy(300,450,"please wait");

setcolor(15);

break;

}

}

}while(1);

}

if(z==6)

{

cntrl[z-1]=1;

mousehide();

for(i=0;i<5;i++)

{

rectangle(500,275+i\*20,550,295+i\*20);

floodfill(501,276+i\*20,1);

sprintf(c,"%d",i+2016);

outtextxy(510,278+i\*20,c);

}

callmouse();

int cl=0;

do

{

cl=0;

mouseposi(x,y,cl);

if(cl==1)

{

c[0]=char(219);

mousehide();

setcolor(15);

for(i=0;i<10;i++)

outtextxy(510+i,252,c);

callmouse();

setcolor(1);

d=coordinatecay(x,y);

if(d)

{

char a[8];

sprintf(a,"%d",d+2015);

for(i=4;i<8;i++)

requireddate[i]=a[i-4];

outtextxy(510,252,a);

setcolor(15);

outtextxy(300,450,"please wait");

delay(500);

setcolor(9);

setfillstyle(1,9);

mousehide();

for(i=0;i<5;i++)

{

sprintf(c,"%d",i+2016);

outtextxy(510,278+i\*20,c);

floodfill(501,276+i\*20,1);

}

for(i=0;i<5;i++)

rectangle(500,275+i\*20,550,295+i\*20);

callmouse();

outtextxy(300,450,"please wait");

setcolor(15);

break;

}

}

}while(1);

}

a=0;

for(i=0;i<10;i++)

if(cntrl[i]==1) a++;

setfillstyle(1,15);

setcolor(1);

if(a==6)

{

rectangle(getmaxx()-100,getmaxy()-25,getmaxx()-5,getmaxy()-5);

floodfill(getmaxx()-10,getmaxy()-10,1);

for(i=0;i<3;i++)

outtextxy(getmaxx()-92+i,getmaxy()-22,"S U B M I T");

if(z==7) return 1;

}

}

return 0;

}

int lockcoordinate10(int x,int y)

{

if(x>0)

if(y>200)

if(x<50)

if(y<250)

return 1;

return 0;

}

int lockcoordinate9(int x,int y)

{

int d=0;

if(x>300)

if(y>200)

if(x<350)

if(y<250)

do

{

int cl=0;

mouseposi(x,y,cl);

if(cl==1)

d=lockcoordinate10(x,y);

if(d)

return 1;

}while(!d);

return 0;

}

int lockcoordinate8(int x,int y)

{

int d=0;

if(x>600)

if(y>200)

if(x<650)

if(y<250)

do

{

int cl=0;

mouseposi(x,y,cl);

if(cl==1)

d=lockcoordinate9(x,y);

if(d)

return 1;

}while(!d);

return 0;

}

int lockcoordinate7(int x,int y)

{

int d=0;

if(x>600)

if(y>370)

if(x<650)

if(y<450)

do

{

int cl=0;

mouseposi(x,y,cl);

if(cl==1)

d=lockcoordinate8(x,y);

if(d)

return 1;

}while(!d);

return 0;

}

int lockcoordinate6(int x,int y)

{

int d=0;

if(x>300)

if(y>370)

if(x<350)

if(y<420)

do

{

int cl=0;

mouseposi(x,y,cl);

if(cl==1)

d=lockcoordinate7(x,y);

if(d)

return 1;

}while(!d);

return 0;

}

int lockcoordinate5(int x,int y)

{

int d=0;

if(x>0)

if(y>370)

if(x<50)

if(y<450)

do

{

int cl=0;

mouseposi(x,y,cl);

if(cl==1)

d=lockcoordinate6(x,y);

if(d)

return 1;

}while(!d);

return 0;

}

int lockcoordinate4(int x,int y)

{

int d=0;

if(x>0)

if(y>200)

if(x<50)

if(y<250)

do

{

int cl=0;

mouseposi(x,y,cl);

if(cl==1)

d=lockcoordinate5(x,y);

if(d)

return 1;

}while(!d);

return 0;

}

int lockcoordinate3(int x,int y)

{

int d=0;

if(x>0)

if(y>20)

if(x<50)

if(y<100)

do

{

int cl=0;

mouseposi(x,y,cl);

if(cl==1)

d=lockcoordinate4(x,y);

if(d)

return 1;

}while(!d);

return 0;

}

int lockcoordinate2(int x,int y)

{

int d=0;

if(x>300)

if(y>20)

if(x<350)

if(y<100)

do

{

int cl=0;

mouseposi(x,y,cl);

if(cl==1)

d=lockcoordinate3(x,y);

if(d)

return 1;

}while(!d);

return 0;

}

int lockcoordinate1(int x,int y)

{

int d=0;

if(x>600)

if(y>20)

if(x<650)

if(y<100)

do

{

int cl=0;

mouseposi(x,y,cl);

if(cl==1)

d=lockcoordinate2(x,y);

if(d)

return 1;

}while(!d);

return 0;

}

int welcome()

{

int gd=DETECT,gm;

initgraph(&gd,&gm,"C:\\TurboC3\\BGI");

cleardevice();

int x=10,y=100,cl;

begin:

setposi(x,y);

callmouse();

setbkcolor(9);

setcolor(14);

settextstyle(2,0,7);

outtextxy(0,0,"Welcome To EMIRATES Online Booking Portal");

setcolor(4);

for(int i=1;i<3;i++)

for(int j=1;j<3;j++)

{

for(int k=10;k;k=k-2)

{

if(k==2) setcolor(1);

else setcolor(4);

rectangle((i\*250)-150-k,(j\*150)-50+k,50+(i\*250)-k,50+(j\*150)+k);

}

setfillstyle(1,15);

floodfill((i\*250),(j\*150),1);

}

setcolor(1);

for(i=0;i<getmaxx();i++)

outtextxy(i,10,"-");

for(i=0;i<3;i++)

{

outtextxy(20+i\*300,50,".");

outtextxy(20+i\*300,220,".");

outtextxy(20+i\*300,400,".");

}

settextstyle(2,0,10);

for(int k=5;k;k--)

{

if(k<4) setcolor(1);

else setcolor(9);

outtextxy(150-k,120+k,"BOOK");

outtextxy(390-k,120+k,"CANCEL");

outtextxy(130-k,270+k,"TICKET");

outtextxy(400-k,270+k,"EXIT");

}

int d=0;

do

{

cl=0;

mouseposi(x,y,cl);

if(cl==1)

{

if(lockcoordinate1(x,y))

{

getch();

break;

}

else

{

d=coordinatew(x,y);

setcolor(9);

outtextxy(300,450,"please wait");

setcolor(15);

}

}

}while(!d);

mousehide();

closegraph();

return d;

}

int coordinate(int x,int y,int \*bs)

{

int s=1;

for(int i=14;i<17;i++) //first class

for(int j=1;j<5;j++)

{

if(x>(10+(30\*i)))

if(y>(70+(45\*j)))

if(x<(25+(30\*i)))

if(y<(100+(45\*j)))

{

int z=0;

for(int k=0;k<100;k++)if(bs[k]==s)z=1;

if(!z) return s;

}

s++;

}

for(i=11;i<19;i++) //bussiness up

for(j=1;j<3;j++)

{

if(x>(10+(20\*i)))

if(y>(80+(j\*35)))

if(x<(25+(20\*i)))

if(y<(105+(j\*35)))

{

int z=0;

for(int k=0;k<100;k++)if(bs[k]==s)z=1;

if(!z) return s;

}

s++;

}

for(i=11;i<19;i++) //bussiness down

for(j=3;j<5;j++)

{

if(x>(10+(20\*i)))

if(y>(120+(j\*35)))

if(x<(25+(20\*i)))

if(y<(145+(j\*35)))

{

int z=0;

for(int k=0;k<100;k++)if(bs[k]==s)z=1;

if(!z) return s;

}

s++;

}

for(i=1;i<10;i++) //economic up

for(j=1;j<4;j++)

{

if(x>(10+(20\*i)))

if(y>(80+(j\*25)))

if(x<(25+(20\*i)))

if(y<(100+(j\*25)))

{

int z=0;

for(int k=0;k<100;k++)if(bs[k]==s)z=1;

if(!z) return s;

}

s++;

}

for(i=1;i<10;i++) //economic down

for(j=4;j<7;j++)

{

if(x>(10+(20\*i)))

if(y>(120+(j\*25)))

if(x<(25+(20\*i)))

if(y<(140+(j\*25)))

{

int z=0;

for(int k=0;k<100;k++)if(bs[k]==s)z=1;

if(!z) return s;

}

s++;

}

return 0;

}

void display(int \*bs)

{

int s=1,y=0;

char a[5];

setcolor(15);

setfillstyle(1,4);

for(int i=14;i<17;i++) //first class

for(int j=1;j<5;j++)

{

rectangle(10+(30\*i),70+(j\*45),25+(30\*i),100+(j\*45));

floodfill(11+(30\*i),71+(j\*45),15);

setcolor(1);

sprintf(a,"%d",s);

outtextxy(12+i\*30,77+j\*45,a);

y=0;

for(int k=0;k<100;k++)if(bs[k]==s)y=1;

if(y) outtextxy(12+i\*30,77+j\*45,"±");

s++;

setcolor(15);

}

setfillstyle(1,2);

for(i=11;i<19;i++) //bussiness up

for(j=1;j<3;j++)

{

rectangle(10+(20\*i),80+(j\*35),25+(20\*i),105+(j\*35));

floodfill(11+(20\*i),81+(j\*35),15);

y=0;

for(int k=0;k<100;k++)if(bs[k]==s)y=1;

if(y) outtextxy(12+i\*20,85+j\*35,"±");

sprintf(a,"%d",s);

setcolor(1);

outtextxy(12+i\*20,85+j\*35,a);

s++;

setcolor(15);

}

for(i=11;i<19;i++) //bussiness down

for(j=3;j<5;j++)

{

rectangle(10+(20\*i),120+(j\*35),25+(20\*i),145+(j\*35));

floodfill(11+(20\*i),121+(j\*35),15);

y=0;

for(int k=0;k<100;k++)if(bs[k]==s)y=1;

if(y) outtextxy(12+i\*20,125+j\*35,"±");

sprintf(a,"%d",s);

setcolor(1);

outtextxy(12+i\*20,125+j\*35,a);

s++;

setcolor(15);

}

setfillstyle(1,15);

for(i=1;i<10;i++) //economic up

for(j=1;j<4;j++)

{

rectangle(10+(20\*i),80+(j\*25),25+(20\*i),100+(j\*25));

floodfill(11+(20\*i),81+(j\*25),15);

y=0;

for(int k=0;k<100;k++)if(bs[k]==s)y=1;

setcolor(4);

if(y) outtextxy(12+i\*20,85+j\*25,"±");

sprintf(a,"%d",s);

setcolor(1);

outtextxy(12+i\*20,85+j\*25,a);

s++;

setcolor(15);

}

for(i=1;i<10;i++) //economic down

for(j=4;j<7;j++)

{

rectangle(10+(20\*i),120+(j\*25),25+(20\*i),140+(j\*25));

floodfill(11+(20\*i),121+(j\*25),15);

y=0;

for(int k=0;k<100;k++)if(bs[k]==s)y=1;

setcolor(4);

if(y) outtextxy(12+i\*20,125+j\*25,"±");

sprintf(a,"%d",s);

setcolor(1);

outtextxy(12+i\*20,125+j\*25,a);

s++;

setcolor(15);

}

setfillstyle(1,9);

floodfill(getmaxx(),getmaxy(),15);

floodfill(0,0,15);

floodfill(getmaxx(),0,15);

floodfill(0,getmaxy(),15);

setcolor(1);

setfillstyle(1,15);

}

void seatsavailable(int \*s)

{

int x,y,cl,a1,b;

cleardevice();

setbkcolor(0);

a1=300;

b=0;

setcolor(15);

setposi(a1,b);

callmouse();

settextstyle(3,0,3);

outtextxy(30,180,"economic class");

outtextxy(230,180,"bussiness class");

settextstyle(3,0,2);

outtextxy(530,180,"FIRST");

outtextxy(530,200,"CLASS");

settextstyle(2,0,4);

line(25,100,500,100); //top

line(25,300,500,300); //bottom

arc(200,200,149,211,200); //left

line(500,100,640,200);

line(230,0,250,100);

line(380,0,400,100);

line(230,getmaxy(),250,300);

line(380,getmaxy(),400,300);

line(500,300,640,200);

rectangle(210,98,230,102);

rectangle(210,302,230,298);

rectangle(400,302,420,298);

rectangle(400,98,420,102);

display(s);

int d=0,seats[4],i=0;

char c[3];

do

{

cl=0;

mouseposi(x,y,cl);

if(cl==1)

{

d=coordinate(x,y,s);

if(d)

{

if(i<oc.returnnoofpassengers())

{

seats[i]=d;

settextstyle(2,0,5);

setcolor(15);

outtextxy(100,400,"SEATS SELECTED");

sprintf(c,"%d",d);

outtextxy(100,410+i\*10,c);

outtextxy(300,450,"please wait");

delay(500);

setcolor(0);

outtextxy(300,450,"please wait");

setcolor(15);

i++;

}

}

}

if(i==oc.returnnoofpassengers()) break;

}while(1);

mousehide();

ob.enterseatno(seats);

}

void bkflight()

{

cleardevice();

setbkcolor(9);

settextstyle(2,0,5);

setcolor(15);

outtextxy(10,10,"FLIGHT NAME");

outtextxy(150,10,"Dept Time");

outtextxy(300,10,"Arr Time");

outtextxy(460,10,"RATE");

outtextxy(400,30,"First");

outtextxy(450,30,"Bussiness");

outtextxy(550,30,"Economic");

}

int coordinatefs(int x,int y,int j)

{

int z=1;

for(int i=0;i<j;i++)

{

if(x>10)

if(y>50+i\*60)

if(x<620)

if(y<100+i\*60)

return z;

z++;

}

return 0;

}

void bank()

{

cleardevice();

setbkcolor(0);

setcolor(11);

settextstyle(2,0,7);

outtextxy(100,100,"REDIRECTING to BANK...");

loading();

cleardevice();

settextstyle(2,0,7);

setcolor(11);

outtextxy(100,100,"ENTER OTP CODE...");

for(int i=0;i<5;i++)

{

outtextxy(100+i\*10,150,"\*");

delay(200);

}

loading();

cleardevice();

settextstyle(2,0,7);

setcolor(11);

outtextxy(100,100,"MATCH FOUND");

delay(1000);

cleardevice();

settextstyle(2,0,7);

setcolor(11);

outtextxy(100,100,"COMPLETING TRANSACTION");

loading();

}

void book()

{

int gd=DETECT,gm;

initgraph(&gd,&gm,"C:\\TurboC3\\BGI");

setbkcolor(9);

settextstyle(2,0,8);

setcolor(15);

fstream a,b,c;

int found=0,flights=0,i=0;

oc.selection();

bkflight();

char tflnm[10][10],\*tt;

for(int j=0;j<10;j++)

for(int k=0;k<10;k++)

tflnm[j][k]='\0';

a.open("plane",ios::in|ios::out|ios::binary);

while(a.read((char\*)&oa,sizeof(oa)))

{

if((strcmp(oa.returnfrom(),oc.returnrequiredfrom())||strcmp(oa.returnto(),oc.returnrequiredto()))==0)

{

flights=1;

tt=oc.displayflights(i);

for(j=0;j<9;j++,tt++)

tflnm[i][j]=\*tt;

tt=tt-j;

i++;

}

}

a.close();

if(!flights)

{

cout<<"\n\nno flights available";

getch();

goto skip;

}

else

{

int x1=0,y1=0,cl;

setposi(x1,y1);

callmouse();

do

{

cl=0;

mouseposi(x1,y1,cl);

int d=0;

if(cl==1)

{

d=coordinatefs(x1,y1,i);

if(d)

{

clickeffect(x1,y1);

oc.enterrequiredflightno(tflnm[d-1]);

break;

}

}

}while(1);

mousehide();

b.open("booked",ios::in|ios::out|ios::binary);

c.open("client",ios::in|ios::out|ios::binary);

int x[100];

i=0;

for(int k=0;k<100;k++) x[k]=0;

while(b.read((char\*)&ob,sizeof(ob)))

{

if(strcmp(oc.returnrequiredflightno(),ob.returnflightno())==0)

{

found=1;

for(;i<100;)

{

for(int j=0;j<4;j++)

{

if(ob.returnseatno()[j])

{

x[i]=ob.returnseatno()[j];

i++;

}

}

break;

}

}

}

b.close();

c.close();

seatsavailable(x);

ob.createflightno(2);

b.open("booked",ios::in|ios::out|ios::binary|ios::app);

b.write((char\*)&ob,sizeof(ob));

b.close();

int \*h;

h[0]=100;

oc.readcustomer(h);

c.open("client",ios::in|ios::out|ios::binary|ios::app);

c.write((char\*)&oc,sizeof(oc));

c.close();

bank();

oc.displayticket();

if(!found) cout<<"\ninvalid flight no";

closegraph();

}

skip:

}

int coordinatect(int x,int y)

{

int \*z;

z=ob.returnseatno();

for(int i=0;i<oc.returnnoofpassengers()&&z[i];i++)

{

if(y>200+i\*20)

if(y<220+i\*20)

{

cout<<"\t"<<z[i];

clickeffect(100,201+i\*20);

sleep(1);

return z[i];

}

}

if(x>(getmaxx()-100))

if(y>(getmaxy()-25))

if(x<(getmaxx()-5))

if(y<(getmaxy()-5))

return -1;

return 0;

}

int cancel(int z)

{

int gd=DETECT,gm;

initgraph(&gd,&gm,"C:\\TurboC3\\BGI");

setbkcolor(9);

settextstyle(2,0,5);

setcolor(15);

setfillstyle(1,15);

fstream b,c,tempb,tempc;

bookings tempob;

customer tempoc;

int found=0,a[5],\*seats,position,unavailablecustomerno=1,unavailableflightno=1;

for(int i=0;i<5;i++) a[i]=0;

outtextxy(50,100,"CONSUMER NO");

setcolor(1);

rectangle(200,100,500,120);

floodfill(201,101,1);

setcolor(15);

tempoc.entercustomerno();

outtextxy(50,150,"FLIGHT NO");

setcolor(1);

rectangle(200,150,500,170);

floodfill(201,151,1);

setcolor(15);

tempob.enterflightno();

b.open("booked",ios::in|ios::out|ios::binary);

c.open("client",ios::in|ios::out|ios::binary);

int k=0,j=0;

while(c.read((char\*)&oc,sizeof(oc)))

{

j++;

if(oc.returncustomerno()==tempoc.returncustomerno())

{

unavailablecustomerno=0;

break;

}

}

c.close();

while(b.read((char\*)&ob,sizeof(ob)))

{

k++;

if(k==j)

{

if(strcmp(ob.returnflightno(),tempob.returnflightno())==0)

{

unavailableflightno=0;

break;

}

}

}

b.close();

if(!(unavailablecustomerno)&&!(unavailableflightno))

{

oc.displayticket();

if(z) return 1;

seat:

setcolor(1);

setfillstyle(1,15);

rectangle(getmaxx()-100,getmaxy()-25,getmaxx()-5,getmaxy()-5);

floodfill(getmaxx()-10,getmaxy()-10,1);

setcolor(1);

settextstyle(2,0,5);

for(i=0;i<3;i++)

outtextxy(getmaxx()-92+i,getmaxy()-22,"S U B M I T");

int x=0,y=0;

cout<<"select the seats to be cancelled";

setposi(x,y);

callmouse();

int d=0,i=0;

do

{

int cl=0;

mouseposi(x,y,cl);

if(cl==1 && i<=oc.returnnoofpassengers())

{

d=0;

d=coordinatect(x,y); //returns -1 when clicked in submit

if(d>0)

{

a[i]=d;

i++;

setcolor(9);

outtextxy(300,450,"please wait");

setcolor(15);

}

if(d==-1) break;

}

}while(1);

mousehide();

cleardevice();

seats=ob.returnseatno();

for(i=0;a[i];i++)

{

found=0;

for(int j=0;j<5&&seats[j];j++) if(a[i]==seats[j]) found=1;

if(!found)

{

cout<<"\ninvalid seat no";

getch();

goto seat;

}

}

}

else

{

cout<<"invalid customer no or flight no";

getch();

return 0;

}

int \*s;

s=ob.modifyseatno(a,seats);

tempob=ob;

oc.readcustomer(s);

tempoc=oc;

if(!ob.returnseatno()[0])

{

i=0;j=0;

tempc.open("tclient",ios::in|ios::out|ios::binary);

c.open("client",ios::in|ios::out|ios::binary);

while(c.read((char\*)&oc,sizeof(oc)))

{

i++;

if(tempoc.returncustomerno()!=oc.returncustomerno())

tempc.write((char\*)&oc,sizeof(oc));

}

tempc.close();

c.close();

remove("client");

rename("tclient","client");

tempb.open("tbooked",ios::in|ios::out|ios::binary);

b.open("booked",ios::in|ios::out|ios::binary);

while(b.read((char\*)&ob,sizeof(ob)))

{

j++;

if(j!=i)

if(strcmp(tempob.returnflightno(),ob.returnflightno()))

tempb.write((char\*)&ob,sizeof(ob));

}

tempb.close();

b.close();

remove("booked");

rename("tbooked","booked");

}

else if(ob.returnseatno()[0])

{

b.open("booked",ios::in|ios::out|ios::binary);

int pos;

c.open("client",ios::in|ios::out|ios::binary);

i=0;j=0;

while(!c.eof())

{

i++;

pos=c.tellg();

c.read((char\*)&oc,sizeof(oc));

if(tempoc.returncustomerno()==oc.returncustomerno())

{

c.seekg(pos);

c.write((char\*)&tempoc,sizeof(tempoc));

break;

}

}

c.close();

while(!b.eof())

{

j++;

pos=b.tellg();

b.read((char\*)&ob,sizeof(ob));

if(strcmp(tempob.returnflightno(),ob.returnflightno())==0)

{

if(j==i)

{

b.seekg(pos);

b.write((char\*)&tempob,sizeof(tempob));

break;

}

}

}

b.close();

}

setbkcolor(9);

setcolor(15);

settextstyle(2,0,6);

outtextxy(100,100,"ticket has been successfully cancelled");

getch();

closegraph();

return 0;

}

void view()

{

cancel(1);

}

void exit()

{

int gd=DETECT,gm;

initgraph(&gd,&gm,"C:\\TurboC3\\BGI");

int j=-50;

setcolor(8);

int k,l;

for(int p=0;p<6;p++)

{

if(p==0){k=200;l=450;}

if(p==1){k=400;l=0;}

if(p==2){k=10;l=300;}

if(p==3){k=400;l=400;}

if(p==4){k=100;l=10;}

if(p==5){k=300;l=100;}

arc(52+k,40+l,150,320,10);

arc(70+k,45+l,150,350,10);

arc(87+k,40+l,180,350,10);

arc(42+k,30+l,75,270,10);

arc(102+k,35+l,220,70,10);

arc(102+k,20+l,320,140,10);

arc(52+k,20+l,0,180,10);

arc(70+k,20+l,0,150,10);

arc(85+k,18+l,0,150,10);

setfillstyle(1,7);

floodfill(85+k,18+l,8);

outtextxy(k,l,"\*");

setfillstyle(1,15);

circle(5,5,17);

circle(10,10,17);

floodfill(20,20,8);

setfillstyle(1,7);

}

int y,x;

for(int i=-250;i<700;i=i+3)

{

for(int z=0;z<2;z++)

{

if(z==0){ y=8; setcolor(8); x=15;}

if(z==1){ y=0; setcolor(0); x=0; }

settextstyle(6,0,1);

if(x==15)

setcolor(4);

else

setcolor(x);

outtextxy(60+i,445+j-300,"EMIRATES");

setcolor(y);

line(0+i,440+j-300,220+i,440+j-300); //top

line(50+i,470+j-300,133+i,470+j-300); //bottom

line(173+i,470+j-300,220+i,470+j-300); //bottom

line(50+i,470+j-300,0+i,440+j-300); //left

line(220+i,470+j-300,270+i,455+j-300); //bottom right

line(220+i,440+j-300,270+i,455+j-300); //top right

line(20+i,445+j-300,220+i,445+j-300); //top window

line(33+i,450+j-300,235+i,450+j-300); //bottom window

line(20+i,445+j-300,33+i,450+j-300); //left window

line(220+i,445+j-300,235+i,450+j-300); //right window

line(180+i,440+j-300,100+i,400+j-300); //top right wing

line(140+i,440+j-300,60+i,400+j-300); //top left wing

line(100+i,400+j-300,60+i,400+j-300); //top top wing

line(185+i,460+j-300,120+i,520+j-300); //bottom right wing

line(145+i,460+j-300,80+i,520+j-300); //bottom left wing

line(120+i,520+j-300,80+i,520+j-300); //bottom bottom wing

arc(52+i,400+j-300,210,270,40); //bottom tail

arc(-20+i,435+j-300,20,90,40); //top tail

line(0+i,440+j-300,-20+i,395+j-300); //tail

setfillstyle(1,x);

floodfill(100+i,447+j-300,y);

sound(400-j);

delay(10);

nosound();

}

j++;

setcolor(11);

settextstyle(2,0,8);

outtextxy(50,400,"THANK YOU FOR USING OUR SERVICE");

}

closegraph();

}

void onetime()

{

fstream e,a;

e.open("base",ios::in|ios::out|ios::binary);

oe.enterairports();

oe.enterrate();

e.write((char\*)&oe,sizeof(oe));

e.read((char\*)&oe,sizeof(oe));

oe.disp();

e.close();

getch();

a.open("plane",ios::in|ios::out|ios::binary);

int z=0;

while(a.read((char\*)&oa,sizeof(oa)))

{

if(z==1899)

oa.displayflights1();

z++;

}

a.close();

getch();

}

void main()

{

clrscr();

// onetime();

load();

start:

int z;

z=welcome();

switch(z)

{

case 0: company(); goto start;

case 1: book(); goto start;

case 2: view(); goto start;

case 3: cancel(0); goto start;

case 4: exit();

}

}

void bookings::enterflightno()

{

setbkcolor(9);

settextstyle(2,0,5);

setcolor(1);

setfillstyle(1,15);

show(flightno,205,150);

setcolor(15);

}

void bookings::createflightno(int x)

{

if(x==2) strcpy(flightno,oc.returnrequiredflightno());

else if(x==1)

{

char requireddate[25];

strcpy(requireddate,oc.returnrequireddate());

strcat(requireddate,oa.returnflightname());

strcpy(flightno,requireddate);

}

else if(x==0)

strcpy(flightno,"0");

}

int coordinatec(int x,int y)

{

int a=0,z=1;

if(x>(getmaxx()-100))

if(y>(getmaxy()-25))

if(x<(getmaxx()-5))

if(y<(getmaxy()-5))

a=1;

if(!a)

{

z++;

if(x>(getmaxx()-100))

if(y>(getmaxy()-50))

if(x<(getmaxx()-5))

if(y<(getmaxy()-30))

a=1;

if(!a) z=0;

}

return z;

}

void customer::readcustomer(int\*s)

{

if(s[0]==100)

{

assign(1);

reread:

cleardevice();

setbkcolor(9);

settextstyle(1,0,5);

setcolor(1);

for(int i=0;i<3;i++)

outtextxy(10,20,"CUSTOMER DETAILS");

for(i=0;i<getmaxx();i++)

outtextxy(i,40,"-");

settextstyle(2,0,7);

setcolor(15);

outtextxy(50,100,"NAME");

outtextxy(400,100,"AGE(00-99)");

outtextxy(550,100,"GENDER");

for(i=0;i<getmaxx();i++)

outtextxy(i,110,"-");

setcolor(1);

setfillstyle(1,15);

settextstyle(2,0,5);

for(i=0;i<oc.returnnoofpassengers();i++)

{

rectangle(50,130+i\*50,400,150+i\*50);

floodfill(53,132+i\*50,1);

show(name[i],100,130+i\*50);

rectangle(450,130+i\*50,500,150+i\*50);

floodfill(451,131+i\*50,1);

age[i]=0;

show(age[i],455,130+i\*50);

rectangle(550,130+i\*50,600,150+i\*50);

floodfill(551,131+i\*50,1);

show(gender[i],555,130+i\*50);

}

for(;i<4;i++)

{

strcpy(name[i]," ");

age[i]=0;

strcpy(gender[i]," ");

}

setcolor(15);

outtextxy(10,350,"ADDRESS(when done press '.')");

setcolor(1);

rectangle(3,370,400,420);

floodfill(4,371,1);

showl(address,10,375);

setcolor(15);

outtextxy(10,450,"PHONE NO");

setcolor(1);

rectangle(100,450,400,470);

floodfill(101,451,1);

phoneno=0;

show10(phoneno,105,451);

setcolor(1);

settextstyle(2,0,5);

rectangle(getmaxx()-100,getmaxy()-25,getmaxx()-5,getmaxy()-5);

floodfill(getmaxx()-10,getmaxy()-10,1);

rectangle(getmaxx()-100,getmaxy()-50,getmaxx()-5,getmaxy()-30);

floodfill(getmaxx()-10,getmaxy()-40,1);

for(i=0;i<3;i++)

outtextxy(getmaxx()-92+i,getmaxy()-22,"S U B M I T");

outtextxy(getmaxx()-80,getmaxy()-47,"BACK");

int a=0,b=0;

setposi(a,b);

callmouse();

int cl,x,y,d=0;;

do

{

cl=0;

mouseposi(x,y,cl);

if(cl==1)

{

d=coordinatec(x,y);

outtextxy(300,450,"please wait");

delay(500);

setcolor(0);

outtextxy(300,450,"please wait");

setcolor(15);

if(d==2) goto reread;

}

}while(d!=1);

mousehide();

}

else

{

for(int i=0;s[i];i++)

{

strcpy(name[s[i]-1]," ");

age[s[i]-1]=0;

strcpy(gender[s[i]-1]," ");

}

int m;

for(i=0;i<4;i++)

{

if(age[i]==0)

{

for(m=1;m<5;)

{

if(age[i+m]!=0) break;

m++;

}

if((i+m)<4)

{

strcpy(name[i],name[i+m]);

strcpy(name[i+m]," ");

age[i]=age[i+m];

age[i+m]=0;

strcpy(gender[i],gender[i+m]);

strcpy(gender[i+m]," ");

}

}

}

}

}

void customer::displayticket()

{

int gd=DETECT,gm;

initgraph(&gd,&gm,"C:\\TurboC3\\BGI");

cleardevice();

setbkcolor(9);

settextstyle(2,0,5);

setcolor(4);

setfillstyle(1,15);

for(int i=0;i<3;i++)

{

if(i==2) setcolor(1);

rectangle(10+i\*2,20+i\*2,630+i\*2,400+i\*2);

}

floodfill(100,100,1);

setfillstyle(1,1);

for(i=0;i<400;i=i+50)

for(int j=0;j<2;j++)

{

circle(30+j\*590,i+50,5);

floodfill(30+j\*590,i+50,1);

}

fstream a;

a.open("plane",ios::in|ios::out|ios::binary);

if(!customerno) outtextxy(100,100,"unavilable");

else

{

int \*x,seat[4];

x=seat;

char y[5];

for(i=0;i<oc.returnnoofpassengers();i++)

seat[i]=ob.returnseatno()[i];

for(i=0;i<5;i++) y[i]=ob.returnflightno()[i+8];

while(a.read((char\*)&oa,sizeof(oa)))

{

if(strcmp(y,oa.returnflightname())==0) break;

}

a.close();

outtextxy(300,70,"date of booking");

outtextxy(420,70,ctime(&ptime));

outtextxy(50,70,"customer no");

char cno[15];

sprintf(cno,"%ld",customerno);

outtextxy(170,70,cno);

outtextxy(300,90,"flight no");

outtextxy(400,90,ob.returnflightno());

outtextxy(50,90,"flight name");

outtextxy(170,90,y);

outtextxy(50,110,"from");

outtextxy(170,110,requiredfrom);

outtextxy(300,110,"to");

outtextxy(400,110,requiredto);

outtextxy(50,130,"departure time");

char dtm[6],atm[6];

sprintf(dtm,"%ld",oa.returndepttime());

outtextxy(170,130,dtm);

outtextxy(300,130,"arrival time");

sprintf(atm,"%ld",oa.returnarrtime());

outtextxy(400,130,atm);

outtextxy(50,150,"date of journey");

outtextxy(170,150,oc.requireddate);

outtextxy(100,170,"#NO CUSTOMER NAME SEAT NO AGE GENDER");

outtextxy(100,180,"\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_ \_\_\_\_\_\_\_");

char no[1],sno[2],ag[2];

for(i=0;i<noofpassengers&&x[i];i++)

{

rectangle(50,200+i\*20,450,220+i\*20);

sprintf(no,"%d",i+1);

outtextxy(100,200+i\*20,no);

outtextxy(150,200+i\*20,name[i]);

sprintf(sno,"%d",x[i]);

outtextxy(280,200+i\*20,sno);

sprintf(ag,"%d",age[i]);

outtextxy(340,200+i\*20,ag);

outtextxy(380,200+i\*20,gender[i]);

}

outtextxy(50,300,"address");

outtextxy(50,320,address);

outtextxy(50,380,"phone no");

char ph[10];

sprintf(ph,"%ld",phoneno);

outtextxy(170,380,ph);

}

for(i=0;i<5;i++)

{

ellipse(500+i,320+i,0,360,50,30);

outtextxy(510+i,300+i,"i\*\*\*");

outtextxy(470,310,"cash");

outtextxy(480,320,"received");

}

setcolor(1);

for(i=0;i<616;i++)

outtextxy(14+i,50,"\_");

setfillstyle(1,4);

floodfill(150,25,1);

setcolor(15);

settextstyle(2,0,10);

for(i=0;i<4;i++)

outtextxy(100+i,20+i,"EMIRATES");

getch();

}

void bookings::enterseatno(int \*s)

{

for(int i=0;i<oc.returnnoofpassengers();i++)

seatno[i]=s[i];

for(;i<4;i++) seatno[i]=0;

}

bookings::bookings() { for(int i=0;i<4;i++)seatno[i]=0; }

int\* bookings::modifyseatno(int \*a,int \*seats)

{

int j=0,y=0;

static int z[4];

for(int k=0;k<5;k++) z[k]=0;

for(k=0;k<4&&seats[k];k++)

{

int cancelled=0;

for(int i=0;i<4&&a[i];i++)

{

if(a[i]==seats[k])

{

z[y]=k+1;

y++;

cancelled=1;

break;

}

}

if(!cancelled)

{

seatno[j]=seats[k];

j++;

}

}

for(;j<4;j++) seats[j]=0;

return z;

}

void aeroplane::readflight(char \*f,char \*t)

{

if(strcmp(f,"aa")==0)

{

for(int i=0;i<50;i++)

{

flightname[i]='\0';

from[i]='\0';

to[i]='\0';

}

cout<<"\nEnter new flight name-";

gets(flightname);

cout<<"Enter from - ";

gets(from);

cout<<"Enter to - ";

gets(to);

cout<<"Enter departure time - ";

cin>>depttime;

cout<<"Enter arrival time - ";

cin>>arrtime;

cout<<"Enter rate of economic class - ";

cin>>charge[0];

cout<<"Enter rate of bussiness class - ";

cin>>charge[1];

cout<<"Enter rate of first class - ";

cin>>charge[2];

}

else

{

int i,j;

fstream a;

for(i=1;i<11;i++)

{

if(i<6)

{

strcpy(from,f);

strcpy(to,t);

}

else

{

strcpy(from,t);

strcpy(to,f);

}

char x[5];

for(int k=0;k<5;k++) x[k]='\0';

char y='\0';

x[0]=from[0];

x[1]=to[0];

switch(i)

{

case 1:y='1';break;

case 2:y='2';break;

case 3:y='3';break;

case 4:y='4';break;

case 5:y='5';break;

case 6:y='1';break;

case 7:y='2';break;

case 8:y='3';break;

case 9:y='4';break;

case 10:y='5';break;

}

x[2]=y;

strcpy(flightname,x);

depttime=20000+(i\*50000);

if(depttime>240000) depttime=depttime-240000;

if(depttime>240000) depttime=depttime-240000;

long time;

time=oe.returntraveltime();

arrtime=depttime+time\*10000;

if(arrtime>240000) arrtime=arrtime-240000;

long rate;

rate=oe.returnrate();

for(j=0;j<3;j++) charge[j]=rate\*(j+1);

a.open("plane",ios::in|ios::out|ios::binary|ios::app);

a.write((char\*)&oa,sizeof(oa));

a.close();

}

}

}

void enter::enterairports()

{

cout<<"\nEnter no of airports required(max 20)\n";

cin>>noofairports;

cout<<"\nEnter the airports available\n";

for(int i=0;i<noofairports;i++)

gets(airport[i]);

}

void enter::enterrate()

{

for(int i=0;i<noofairports;i++)

for(int j=i+1;j<noofairports;j++)

{

if(i>9||j>9)

{

rate=50000;

traveltime=10;

}

else

{

rate=5000;

traveltime=2;

}

oa.readflight(airport[i],airport[j]);

}

}

void customer::selection()

{

int a=0,b=0,cl,x,y;

setposi(a,b);

callmouse();

settextstyle(2,0,5);

setcolor(1);

setfillstyle(1,15);

for(int i=0;i<3;i++)

{

rectangle(300,100+i\*50,550,120+i\*50);

floodfill(310,110+i\*50,1);

}

for(i=0;i<3;i++)

{

rectangle(300+i\*100,250,350+i\*100,270);

floodfill(310+i\*100,260,1);

}

setcolor(15);

outtextxy(10,100,"departure station");

outtextxy(10,150,"Enter the arrival station");

outtextxy(10,250,"Enter the date of journey(yyyymmdd)");

outtextxy(10,200,"Enter the no of passengers(max 4)");

int cntrl[10];

for(i=0;i<10;i++) cntrl[i]=0;

int d=0;

do

{

cl=0;

mouseposi(x,y,cl);

if(cl==1)

d=coordinates(x,y,cntrl);

}

while(d!=1);

mousehide();

}

void enter::disp()

{

cout<<"\nno"<<noofairports;

cout<<"\ntime"<<traveltime;

cout<<"\nrate"<<rate<<endl;

for(int i=0;i<20;i++)

cout<<airport[i]<<endl;

}

void aeroplane::update()

{

start:

long posi,ch=0;

fstream a;

clrscr();

cout<<"Enter the Changes you want to make";

cout<<"\n1.Edit Details\n2.Delete Details\n3.ADD\n4.VIEW\nanyother to exit";

cout<<"\nselect your choice:";

cin>>ch;

int found=0;

char tflight[50];

for(int i=0;i<50;i++) tflight[i]='\0';

if(ch<5 && ch>0 && ch!=3)

{

cout<<"Enter the flight name:";

gets(tflight);

}

switch(ch)

{

case 1:a.open("plane",ios::in|ios::out|ios::binary);

while(!a.eof())

{

posi=a.tellg();

a.read((char\*)&oa,sizeof(oa));

if(strcmp(tflight,flightname)==0)

{

oa.displayflights1();

oa.readflight("aa","aa");

a.seekp(posi);

a.write((char\*)&oa,sizeof(oa));

found=1;

getch();

goto start;

}

}

if(!found)

cout<<"Record does not exists";

a.close();

getch();

goto start;

case 2:a.open("plane",ios::in|ios::out|ios::binary);

fstream tempa;

tempa.open("tplane",ios::in|ios::out|ios::binary);

while(a.read((char\*)&oa,sizeof(oa)))

{

if(strcmp(tflight,flightname)==0)

{

oa.displayflights1();

getch();

cout<<"\nThe record is deleted";

found=1;

}

else

tempa.write((char\*)&oa,sizeof(oa));

}

if(!found) cout<<"Record not found";

a.close();

tempa.close();

remove("plane");

rename("tplane","plane");

getch();

goto start;

case 3:a.open("plane",ios::in|ios::out|ios::app|ios::binary);

oa.readflight("aa","aa");

a.write((char\*)&oa,sizeof(oa));

a.close();

getch();

goto start;

case 4:a.open("plane",ios::out|ios::in|ios::binary);

while(a.read((char\*)&oa,sizeof(oa)))

{

found=0;

if(strcmp(tflight,oa.returnflightname())==0)

{

oa.displayflights1();

found=1;

getch();

goto start;

}

}

a.close();

if(!found) cout<<"Record does not exist";

getch();

goto start;

default :cout<<"exitting";

}

getch();

}

**Conclusion**

*The Air Ticket Reservation also includes features like ticket cancelation, viewing the ticket which is more user friendly and simple to use.*

*It involves graphics and mouse makes it easy to use.*

**Bibliography**

*Computer science with C++ by Sumita Arora ( class 11 & class 12).*

*Internet.*

*C++ help box.*