## “Bus.h”

#include <Windows.h> //to add background and foreground colors

#include<fstream> //to do file handling

#include <iostream>

#include <string> //to deal with character strings

using namespace std;

int main();

void view\_notices(); //to see the notices by admins for the passangers to follow rules of bus

void take\_complaints(); //for the user to add complaints against bus or to ask for any query

void view\_routes(); //for the users o see the routes of the buses

void view\_timings(); //to see the timings of buses' departure and arrival and their drivers' name

class user

{

public:

///////////////////user class to do registration and enter data

string choice, Name, fathername, address, phone\_no, password, username, time;

string route;

string seats; //pulic data members to access in to memeber function

void register\_now(); //to register the users for bus reservation

void storerecord(); //to do file handling:store data in to file Login.txt

void allottment\_form(); //to allott confirmation slip to users who have registered

};

class Admin

{

//incapsulation

private: //class for the admins to do their respective tasks

char busn[5]; //bus number which is of any number (numbr of digits must be between 1-5)

char driver[10];//to store the driver's name of the relevant bus

char arrival[5];//to store the time of the arrival of the bus

char depart[5];//to store the time of the departure of the bus

char from[10];//to store the name of the place from where the bus strats to go

char to[10];//destination of the bus

char seat[8][4][10];//to store the seats

public:

string pwd; //admin's password

Admin(); //constructor with no arguments

string welcome(); //to check weather the person going to login is admin or any random person

void reply\_query(); //to reply to passangers if they have any query or complaints

void notices(); //to add notices for the passangers

void install();//to install bus

}bus[10];//bus instances create

## “Bus.cpp”

#include <Windows.h> //to add background and foreground colors

#include<fstream> //to do file handling

#include <iostream>

#include <string> //to deal with character strings

#include"Bus.h"

using namespace std;

void view\_routes()

{

system("cls"); //for the users o see the routes of the buses

system("COLOR 74");

cout << "\n\n1-From Islamabad to Multan........1300/-PKR\n\n\n\t\t\t 2-From Lahore to Islamabad........1700/-PKR\n\n\n 3-From lahore to Multan........1000/-PKR\n\n\n\t\t\t4-From Islamabad to Bahawalpur.......1200/-PKR\n\n\n5-From Lahore to Naran........2300/-PKR\n ";

}

void view\_timings()

{

system("cls"); //to see the timings of buses' departure and arrival and their drivers' name

system("COLOR 0E");

cout << "\n1-10:00AM.......Driver's Name: Imran Khan\n2-12:00PM.......Driver's Name: Jahangir tareen\n3-3:00PM........Driver's Name: Pervaiz Khattak\n4-6:00 PM........Driver's Name: Saad Rafique\n5-8:00PM.......Driver's Name: Shah Mehmood Qureshi\n6-11:00PM.......Driver's Name: Sheikh Rasheed\n7-2:00AM........Driver's Name: Chahudhry Nisaar\n8-6:00AM........Driver's Name: Shahbaz Sharif\n";

}

void take\_complaints()

{

string complaints;

system("cls"); //for the user to add complaints against bus or to ask for any query

system("COLOR 2F");

cout << "\n\n\t\tEnter the complaints against the bus service or query regarding travelling: ";

cin.ignore();

getline(cin, complaints);

fstream compl;

compl.open("Complaints.txt", ios::app | ios::binary);

//take complaints from the passangers and put them in the Complaints.txt file

compl << complaints;

compl << "\n\n";

compl.close();

}

void view\_notices()

{

string notices;

fstream view; //to see the notices by admins for the passangers to follow rules of bus

system("cls");

system("COLOR 5E");

view.open("Notice.txt");

while (!view.eof()){ //take notices from the admin and put them in the Notice.txt file

getline(view, notices);

cout << notices << "\n";

}

view.close();

}

void user::storerecord()

{

fstream forf;

//file instance forf is created

forf.open("Login.txt", ios::app | ios::binary);

forf << username << " ";

forf << password << " ";

forf << Name << " ";

forf << fathername << " ";

forf << phone\_no << " ";

forf << address << " ";

forf << route << " ";

forf << time << " "; //after storing data of a particular user file moves to next line

forf << seats;

forf << "\n\n";

forf.close();

}

void user::register\_now()

{

system("cls");

system("COLOR B0");

cout << "Which type of registration you want to do: staff or student: ";

cin >> choice; //staff or student registration is different

if (choice == "student" || choice == "STUDENT" || choice == "Student" || choice == "2")

{

cout << "Enter your CMS ID: ";

cin >> username;

}//////////////////////////////////////////staff will have username as same as of their staff ids and students with their cms ids

if (choice == "staff" || choice == "STAFF" || choice == "Staff" || choice == "1")

{

cout << "Enter your Staff ID: ";

cin >> username;

}

cout << "\nEnter your name: ";

cin.ignore();

getline(cin, Name);

cout << "\nEnter your Father's/Guardian's name: ";

cin.ignore();

getline(cin, fathername);

cout << "\nEnter your phone number: ";

cin >> phone\_no;

cout << "\nEnter your address: ";

cin.ignore();

getline(cin, address);

ifstream read;

string b, l, m, n, o, p, q, r, s, t, u;

read.open("Login.txt");

int i = 0; int w = 0; int x = 0; int y = 0; int z = 0; string bus1[20], bus2[20], bus3[20], bus4[20], bus5[20];

cout << "\n1-Bus number 1..From Islamabad to Multan\n 2-Bus number 2..From Lahore to Islamabad\n 3-Bus number 3..From lahore to Multan\n4-Bus number 4..From Islamabad to Bahawalpur\n5-Bus number 5..From Lahore to Naran\n Which route you want to select: ";

cin >> route;

chill:

while (!read.eof())

{ //////////////////this function wil check weather the selected sesat is already resrved or not .if it is so

///then it will display again enter seat number because it is already reserved i a particular bus

read >> l;

read >> m;

read >> n;

read >> o;

read >> p;

read >> q;

read >> r;

u = r;

read >> s;

read >> t;

b = t;

if (u == "1")

{

bus1[i] = t;

i++;

}

else if (u == "2")

{

bus2[w] = t;

w++;

}

else if (u == "3")

{

bus3[x] = t;

x++;

}

else if (u == "4")

{

bus4[y] = t;

y++;

}

else if (u == "5")

{

bus5[z] = t;

z++;

}

goto chill; //labels are also added

}

read.close();

string a;

seat\_again:

cout << "\n1\t2\t3\t4\t5\t6\t7\t8\n9\t10\t11\t12\t13\t14\t15\t16\n17\t18\t19\t20\t21\t22\t23\t24\n25\t26\t27\t28\t29\t30\t31\t32\nSelect your seat number: ";

cin >> a; //display the seats in a matrix type display

if (route == "1")

{

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

{

if (a == bus1[j])

{

cout << "the seat is already reserved.try again later";

goto seat\_again;

}

else

seats = a;

}

}

if (route == "2")

{

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

{

if (a == bus2[j])

{

cout << "the seat is already reserved.try again later";

goto seat\_again;

}

else

seats = a;

}

}

if (route == "3")

{

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

{

if (a == bus3[j])

{

cout << "the seat is already reserved.try again later";

goto seat\_again;

}

else

seats = a;

}

}

if (route == "4")

{

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

{

if (a == bus4[j])

{

cout << "the seat is already reserved.try again later";

goto seat\_again;

}

else

seats = a;

}

}

if (route == "5")

{

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

{

if (a == bus5[j])

{

cout << "the seat is already reserved.try again later";

goto seat\_again;

}

else

seats = a;

}

}

cout << "\n1-10:00AM\n2-12:00PM\n3-3:00PM\n4-6:00 PM\n 5-8:00PM\n6-11:00PM\n7-2:00AM\n8-6:00AM\nAt which time you want to book your seat: ";

cin >> time;

cout << "your username is: " << username << endl;

cout << "Enter your Password: ";

cin >> password;

}

//bool is\_empty(std::ifstream pFile)

//{

//return pFile.peek() == std::ifstream::traits\_type::eof();

//}

//comfirmation form after seat reservation

void user::allottment\_form()

{

enter:

system("cls");

system("COLOR 74");

user use; ///////////////to print the confirmation slip after registration

fstream ifne;

ifne.open("Login.txt", ios::in | ios::binary);

string a, b, d;////////////after the comparison of password and username corresponding confirmation slip will be printed

int m;

if (ifne)

{

ifne >> username;

ifne >> password;

cout << "\n\n\n\n\n\t\t\tEnter your Username: ";

cin >> a;

cout << "\t\t\tEnter your password: ";

cin >> b;

while (a != username&&b != password){

string line;

while (!ifne.eof()) {

getline(ifne, line);

if (line == "\0")

break;

}

ifne >> username;

ifne >> password;

}

if (a == username&&b == password)

{

system("cls");

system("COLOR 0A");

cout << "\n\n\n\n\n\t\t\t\t\t.....LOADING";

for (int i = 0; i < 900000000; i++)

{

}

string Name, username, fathername, address, phone\_no, password;

string route, time;

string seats;

system("cls");

system("COLOR 0E");

cout << "\n\n\n\t\t\t\t<-><-><->CONFIRMATION FORM<-><-><->\n\n\n";

cout << "\n\n\n";

ifne >> Name;

cout << "\n\t\tName: " << Name;

ifne >> fathername;

cout << "\t\t\t\tFather's/Guardian's Name: " << fathername;

ifne >> phone\_no;

cout << "\n\n\t\tPhone Number: " << phone\_no;

ifne >> address;

cout << "\t\tAddress: " << address;

ifne >> route;

if (route == "1")

{

cout << "\n\n\t\troute: Islamabad to Multan\t\t\tPAyment to be deposited to counter:1300 PKR";

}

if (route == "2")

{

cout << "\n\n\t\troute: Lahore to Islamabad\t\t\tPAyment to be deposited to counter:1700 PKR";

}

if (route == "3")

{

cout << "\n\n\t\troute: lahore to Multan\t\t\tPAyment to be deposited to counter:1000 PKR";

}

if (route == "4")

{

cout << "\n\n\t\troute: Islamabad to Bahawalpur\t\t\tPAyment to be deposited to counter:1800 PKR";

}

if (route == "5")

{

cout << "\n\n\t\troute: Lahore to Naran\t\t\tPAyment to be deposited to counter:4000 PKR";

}

ifne >> time;

if (time == "1")

{

cout << "\n\n\t\tTimimg: 10:00 AM\t\t\tDriver\_name :Imran Khan";

}

if (time == "2")

{

cout << "\n\n\t\tTimimg: 12:00 PM\t\t\tDriver\_name :Jahangir Tareen";

}

if (time == "3")

{

cout << "\n\n\t\tTimimg : 3:00 PM\t\t\tDriver\_name : Pervaiz khattak";

}

if (time == "4")

{

cout << "\n\n\t\tTimimg: 6:00 PM\t\t\tDriver\_name :Saad Rafique";

}

if (time == "5")

{

cout << "\n\n\t\tTimimg: 8:00 PM\t\t\tDriver\_name :Shah Mehmood Qureshi";

}

if (time == "6")

{

cout << "\n\n\t\tTimimg: 11:00 PM\t\t\tDriver\_name :Sheikh Rasheed";

}

if (time == "7")

{

cout << "\n\n\t\tTimimg: 2:00 AM\t\t\tDriver\_name :Chahudhry Nisaar";

}

if (time == "8")

{

cout << "\n\n\t\tTimimg: 6:00 AM\t\t\tDriver\_name :Shahbaz Sharif";

}

ifne >> seats;

cout << "\n\n\t\tseat reserved is: " << seats << "\n\n";

cout << "\n\n\n\t\t\t\t\t\t\tpassanger's signature::\_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_";

cout << "\n\n\t\tenter 1 to go to main menu and 2 for quit "; int f;

cin >> f;

switch (f)

{

case 1:

main(); break;

case 2:

system("pause"); break;

}

for (int i = 0; i < 456765; i++)

{

}

}

else

cout << "your username or password is incorrect.Press 1 to re-enter or 2 to quit\n\t\t";

cin >> m;

switch (m)

{

case 1:

goto enter; break;

case 2:

system("pause"); break;

}

}

else

{

cout << "file not opened";

ifne.close();

}

}

//void printstream()

//{

//string line;

//fstream fare;

//fare.open("Login.txt");

//while (getline(fare, line)) {

//if (line == "\0")

//break;

//cout << line;

//}

//fare.close();

//}

static int p = 0;

Admin::Admin()

{

pwd = "no\_to\_nepotism";

}

string Admin:: welcome()

{

string a; /////////////compare entered password with the admin's password

cout << "\n\nEnter Admin's password: ";

cin >> a;

return a;

}

void Admin::reply\_query()

{

string a, b, reply\_to\_text;

fstream query, reply;

query.open("Complaints.txt");

while (!query.eof())

{

done:

while (!query.eof()){

getline(query, a); ///open up complaint box and pick complaints up

cout << a << "\n"; //admin's then reply to them

if (a == "\0")

goto done;

}

}

query.close();

cout << "\n\n";

cin.ignore();

getline(cin, reply\_to\_text);

reply.open("Reply.txt", ios::app | ios::binary);

reply << reply\_to\_text;

reply << "\n\n";

reply.close();

}

void Admin::notices()

{

string notice;

cout << "\nthere are some notices/announcements by admins of the company\n\n\t";

cin.ignore();

getline(cin, notice);

fstream notices("Notice.txt", ios::app | ios::binary);

notices << notice << "\n\n"; //open ups notice.txt file and admins then enter their

notices.close();

}

void Admin::install()

{

fstream adm;

adm.open("Admin.txt", ios::app | ios::binary);

system("cls");

cout << "\n\n\n\n\t\t\t"; //to install bus

cout << "Enter bus no: ";

cin >> bus[p].busn;

adm << bus[p].busn << " ";

cout << "\n\n\t\t\tEnter Driver's name: ";

cin >> bus[p].driver;

adm << bus[p].driver << " ";

cout << "\n\n\t\t\tArrival time: ";

cin >> bus[p].arrival;

adm << bus[p].arrival << " ";

cout << "\n\n\t\t\tDeparture: ";

cin >> bus[p].depart;

adm << bus[p].depart << " ";

cout << "\n\n\t\t\tFrom: \t\t\t";

cin >> bus[p].from;

adm << bus[p].from << " ";

cout << "\n\n\t\t\tTo: \t\t\t";

cin >> bus[p].to;

adm << bus[p].to << " ";

adm << "\n\n";

adm.close();

p++;

}

int main(void)

{

string a, b;

while (1)

{

menu:

system("cls");

system("COLOR 1F");

/\* to change the background and foreground color

the details of the color are as follows:

1-0 for black

2-1 for blue

3-2 for green

4-3 for aqua

5-4 for red

6-5 for purple

7-6 for yellow

8-7 for white

9-8 for gray

10-9 for light blue

11-10 for light green

12-11 for light aqua

13-12 for light red

14-13 for light purple

15-14 for light yellow

16-15 for light white\*/

/\* Basically first hexadecimal digit represent background color and second one represents foreground color \*/

cout << "\n\n\n\t\t\t\t\xB2\xB2\xB2\xB2\xB2\xB2\xB2 WELCOME TO THE MAIN MENU \xB2\xB2\xB2\xB2\xB2\xB2\xB2\n";

user use;

Admin admin;

// use.printstream();

cout << "which type of login you want to go for:\n1-Admin\n2-User\n3-quit\n ";

cin >> a;

if (a == "admin" || a == "Admin" || a == "ADMIN" || a == "1")

{

if (admin.welcome() == admin.pwd)

{

int a;

system("cls");

system("COLOR 47");

cout << "\n\n\n\t\t\tEnter valid choice\n\n\t\t\t\t1-install a bus\n\n\t\t\t\t2-Answer a query by passangers\n\n\t\t\t\t3-to add notices for passangers\n\n\t\t\t\t4-to go back to main menu\n\n\t\t\t\t5-quit :\n";

cin >> a;

switch (a)

{

case 1:

int l;

system("cls");

system("COLOR 3D");

admin.install();

cout << "press 1 to go to main menu";

cin >> l;

goto menu; break;

case 2:

int p;

system("cls");

system("COLOR 0B");

admin.reply\_query();

cout << "\n\n\t\tenter 1 to go to main menu and 2 for quit ";

cin >> p;

switch (p){

case 1:

goto menu;

case 2:

system("pause"); break;

}

break;

case 3:

int n;

system("cls");

system("COLOR 0D");

admin.notices();

cout << "\n\n\t\tenter 1 to go to main menu and 2 for quit ";

cin >> n;

switch (n){

case 1:

goto menu;

case 2:

system("pause"); break;

}break;

case 4:

goto menu; break;

case 5:

system("pause"); break;

}

}

else

{

cout << "\n\nStay out of the access of admins!!....Only admin at this time is Farheen Asif\n\n\n";

goto full;

}

}

else if (a == "user" || a == "User" || a == "USER" || a == "2")

{

system("cls");

system("COLOR 34");

cout << "\n\n\n\n\t\twhat you want to select:\n\t\t\t1-go for registration\n\t\t\t2-print out your confirmation slip\n\t\t\t3-to see the routes of buses\n\t\t\t4-to see the timings and respective drivers of the buses\n\t\t\t5-to complain about any bus service or if you have any query\n\t\t\t6-to see notices by admins\n\t\t\t7-to go to main menu\n\t\t\t8-quit\n ";

cin >> b;

if (b == "1")

{

use.register\_now();

use.storerecord();

int r;

use.allottment\_form();

cout << "\n\n\n\n\t\t\tpress 1 to go back to main menuand any other number to exit : ";

cin >> r;

if (r == 1)

goto menu;

else

goto full;

}

else if (b == "2")

{

int o;

use.allottment\_form();

cout << "\n\n\n\n\t\t\tpress 1 to go back to main menu and any other number to exit : ";

cin >> o;

if (o == 1)

goto menu;

else

goto full;

}

else if (b == "3")

{

int n;

view\_routes();

cout << "\n\n\t\tenter 1 to go to main menu and 2 for quit ";

cin >> n;

switch (n){

case 1:

goto menu;

case 2:

system("pause"); break;

}

}

else if (b == "4")

{

int n;

view\_timings();

cout << "\n\n\t\tenter 1 to go to main menu and 2 for quit ";

cin >> n;

switch (n){

case 1:

goto menu; break;

case 2:

system("pause"); break;

}

}

else if (b == "5")

{

int n;

take\_complaints();

cout << "\n\n\t\tenter 1 to go to main menu and 2 for quit ";

cin >> n;

switch (n){

case 1:

goto menu; break;

case 2:

system("pause"); break;

}

}

else if (b == "6")

{

view\_notices();

int n;

cout << "\n\n\t\tenter 1 to go to main menu and 2 for quit ";

cin >> n;

switch (n){

case 1:

goto menu; break;

case 2:

system("pause"); break;

}

}

else if (b == "7")

{

goto menu;

}

else if (b == "8")

system("pause");

goto full;

}

else if (a == "3" || a == "QUIT" || a == "quit" || a == "Quit")

system("pause");

goto full;

}

full:

return 0;

}