**(HOTEL MANAGEMENT SYSTEM)**

PROGRAM:

#include<iostream>

#include<string>

#include<fstream>

#include<cmath>

#include <conio.h>

using namespace std;

void choice();

void book\_room();

void show\_data();

void update();

void check\_details();

void delete\_record();

void save\_new\_data\_to\_file();

bool check\_for\_previous\_bookings(long room);

int total = 0;

fstream hotel;

struct person {

long room=-99, days;

string name, id, pass, address, city, email, age, number;

}p[100];

int main() {

choice();

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

system("pause");

}

void choice() {

system("CLS");

char choose;

cout << "\n\n";

cout << " =============================================" << endl;

cout << " Welcome To The Online Hotel Management System!" << endl;

cout << " =============================================" << endl << endl;

cout << " : : : MAIN MENU : : :" << endl << endl;

cout << " 1. Book New Room. " << endl;

cout << " 2. View Customers List. " << endl;

cout << " 3. Update Information. " << endl;

cout << " 4. Check Details of Existing Room. " << endl;

cout << " 5. Delete Any Existing Record. " << endl;

cout << " 6. Exit. " << endl;

cout << " Select Your Option: ";

choose = \_getch();

if (choose == '1') {

book\_room();

choice();

}

else if (choose == '2') {

show\_data();

choice();

}

else if (choose == '3') {

update();

choice();

}

else if (choose == '4') {

check\_details();

choice();

}

else if (choose == '5') {

delete\_record();

choice();

}

else if (choose == '6') {

system("CLS");

cout << "\n\n Thank You!" << endl;

}

else {

system("CLS");

cout << "\n\n Incorrect Input...." << endl;

cout << "\n Press Enter To Go Back To Menu....";

\_getch();

choice();

}

}

void book\_room() {

system("CLS");

cout << " Booking Room:" << endl;

cout << " ~~~~~~~" << endl;

cout << " Enter Data of Person " << total + 1 << endl;

cout << endl;

cout << " Please enter your name : ";

getline(cin, p[total].name);

cout << " Please enter your userId : ";

getline(cin, p[total].id);

cout << " Please enter your password : ";

getline(cin, p[total].pass);

cout << " Please enter your age : ";

getline(cin, p[total].age);

bool checkroomavailability;

do {

cout << " Please enter room number which you want to book : ";

cin >> p[total].room;

checkroomavailability = check\_for\_previous\_bookings(p[total].room);

if (!checkroomavailability)

{

cout << " We are sorry for the inconvenience but this room is already booked please select another room.";

cout << endl << endl << endl;

}

} while (!checkroomavailability);

cin.ignore();

cout << " Re-enter your new room: ";

cin >> p[total].room;

cout << " Please enter your phone number : ";

getline(cin, p[total].number);

cout << " Please enter the no. of days for the booking : ";

cin >> p[total].days;

cout << " Please enter your address : ";

cin.ignore();

getline(cin, p[total].address);

cout << " Please enter your city : ";

getline(cin, p[total].city);

cout << " Please enter your Email Id : ";

getline(cin, p[total].email);

hotel.open("hotel.txt", ios::out | ios::app);

if (!hotel) {

cout << "\n NO FILE CREATED !!! ";

}

else {

hotel << " PERSON's DATA:" << endl;

hotel << " Full Name : " << p[total].name << endl;

hotel << " UserId : " << p[total].id << endl;

hotel << " Password : " << p[total].pass << endl;

hotel << " Age : " << p[total].age << endl;

hotel << " Room Number : " << p[total].room << endl;

hotel << " Phone Number : " << p[total].number << endl;

hotel << " Booked Days : " << p[total].days << endl;

hotel << " Address : " << p[total].address << endl;

hotel << " City : " << p[total].city << endl;

hotel << " Email Id : " << p[total].id << endl << endl;

cout << "\n Data has been saved to the file....";

hotel.close();

}

total++;

cout << "\n Room Booked Successfully...." << endl;

cout << "\n Press Enter To Go Back To Menu....";

\_getch();

}

void show\_data() {

system("CLS");

hotel.open("hotel.txt", ios::in);

if (hotel.is\_open()) {

string DATA;

while (getline(hotel, DATA)) {

cout << DATA << endl;

}

}

hotel.close();

cout << "\n Press Enter To Go Back To Menu....";

\_getch();

}

void update() {

system("CLS");

if (total > 0) {

string user, password;

cout << endl;

cout << " Updating An Existing Room :" << endl;

cout << " ~~~~~~~~~~~" << endl << endl;

cout << " ==== Enter Previous Data ====" << endl << endl;

cout << " Customer UserID : ";

getline(cin, user);

cout << " Customer password : ";

getline(cin, password);

for (int i = 0; i < total; i++) {

if (user == p[i].id && password == p[i].pass) {

cout << "\n Record Found! Your Data is Shown Below.... " << endl << endl;

cout << " Name : " << p[i].name << endl;

cout << " Age : " << p[i].age << endl;

cout << " Address : " << p[i].address << endl;

cout << " Room Number : " << p[i].room << endl;

cout << " City : " << p[i].city << endl;

cout << " Email id : " << p[i].email << endl;

cout << " Booked Days : " << p[i].days << endl;

cout << " Phone Number : " << p[i].number << endl << endl;

cout << " ==== Enter New Data ====" << endl << endl;

cout << " Please enter your name : ";

getline(cin, p[total].name);

cout << " Please enter your userId : ";

getline(cin, p[total].id);

cout << " Please enter your password : ";

getline(cin, p[total].pass);

cout << " Please enter your age : ";

getline(cin, p[total].age);

cout << " Please enter room number which you want to book : ";

cin >> p[total].room;

cin.ignore();

cout << " Please enter your phone number : ";

getline(cin, p[total].number);

cout << " Please enter no. of booking days : ";

cin >> p[total].days;

cout << " Please enter your address : ";

getline(cin, p[total].address);

cout << " Please enter your city : ";

getline(cin, p[total].city);

cout << " Please enter your Email Id : ";

getline(cin, p[total].email);

cout << "\n Record Updated Successfully....";

save\_new\_data\_to\_file();

break;

}

else if (i == total - 1) {

cout << " No Record Found! Incorrect Username or Password...." << endl;

break;

}

}

}

else {

cout << "\n No Room Booked Yet....";

}

cout << "\n Press Enter To Go Back To Menu....";

\_getch();

}

void check\_details() {

system("CLS");

if (total > 0) {

string user, password;

cout << endl;

cout << " Checking An Existing Room:" << endl;

cout << " ~~~~~~~~~~~" << endl << endl;

cout << " ==== Enter UserID & Password ====" << endl << endl;

cout << " Customer UserID : ";

getline(cin, user);

cout << " Customer password : ";

getline(cin, password);

for (int i = 0; i < total; i++) {

if (user == p[i].id && password == p[i].pass) {

cout << "\n Record Found! Your Data is Shown Below........ " << endl << endl;

cout << " Name : " << p[i].name << endl;

cout << " Age : " << p[i].age << endl;

cout << " Phone Number : " << p[i].number << endl;

cout << " Booked Days : " << p[i].days << endl;

cout << " Room Number : " << p[i].room << endl;

cout << " Address : " << p[i].address << endl;

cout << " City : " << p[i].city << endl;

cout << " Email : " << p[i].email << endl << endl;

break;

}

else if (i == total - 1) {

cout << " No Record Found! Incorrect Username or Password...." << endl;

break;

}

}

}

else {

cout << "\n No Room Booked Yet....";

}

cout << "\n Press Enter To Go Back To Menu....";

\_getch();

}

void delete\_record() {

system("CLS");

if (total > 0) {

string user, password;

cout << endl;

cout << " Deleting An Existing Room :" << endl;

cout << " ~~~~~~~~~~~" << endl << endl;

cout << " ==== Enter UserID & Password ====" << endl << endl;

cout << " Customer UserID : ";

getline(cin, user);

cout << " Customer password : ";

getline(cin, password);

for (int i = 0; i < total; i++) {

if (user == p[i].id && password == p[i].pass) {

cout << "\n Record Found! Your Data is Shown Below........ " << endl << endl;

cout << " Name : " << p[i].name << endl;

cout << " Age : " << p[i].age << endl;

cout << " Phone Number : " << p[i].number << endl;

cout << " Booked Days : " << p[i].days << endl;

cout << " Room Number : " << p[i].room << endl;

cout << " Address : " << p[i].address << endl;

cout << " City : " << p[i].city << endl;

cout << " Email : " << p[i].email << endl << endl;

cout << "\n Do You Want to Delete Your Room? Press (Y/N) .... ";

char ch = \_getch();

if (ch == 'Y' || ch == 'y') {

for (int j = i; j < total; j++) {

p[j].name = p[j + 1].name;

p[j].age = p[j + 1].age;

p[j].room = p[j + 1].room;

p[j].days = p[j + 1].days;

p[j].address = p[j + 1].address;

p[j].city = p[j + 1].city;

p[j].email = p[j + 1].email;

p[j].number = p[j + 1].number;

p[j].id = p[j + 1].id;

p[j].pass = p[j + 1].pass;

}

total--;

save\_new\_data\_to\_file();

cout << "\n\n Room Deleted Successfully...." << endl << endl;

}

else if (ch == 'N' || ch == 'n') {

cout << "\n No Room Deleted...." << endl << endl;

}

else {

cout << "\n Incorrect Input...." << endl << endl;

}

break;

}

else if (i == total - 1) {

cout << "\n No Record Found! Incorrect Username or Password...." << endl;

break;

}

}

}

else {

cout << "\n No Room Booked Yet....";

}

cout << "\n Press Enter To Go Back To Menu....";

\_getch();

}

void save\_new\_data\_to\_file() {

hotel.open("hotel.txt", ios::out);

if (!hotel) {

cout << "\n NO FILE CREATED !!! ";

}

else {

for (int i = 0; i < total; i++) {

hotel << " PERSON's DATA:" << endl;

hotel << " Full Name : " << p[i].name << endl;

hotel << " UserId : " << p[i].id << endl;

hotel << " Password : " << p[i].pass << endl;

hotel << " Age : " << p[i].age << endl;

hotel << " Room Number : " << p[i].room << endl;

hotel << " Phone Number : " << p[i].number << endl;

hotel << " Booked Days : " << p[i].days << endl;

hotel << " Address : " << p[i].address << endl;

hotel << " City : " << p[i].city << endl;

hotel << " Email Id : " << p[i].id << endl << endl;

}

}

}

bool check\_for\_previous\_bookings(long room)

{ // returns false if room is not available

for (int i = 0; i < total; i++) {

if (p[i].room == room) {

return false;

}

}

return true;

}

OUTPUT:

