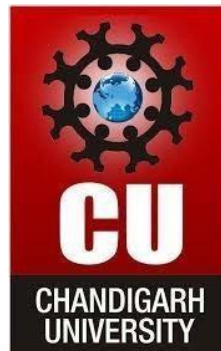


DEPARTMENT OF

UNIVERSITY INSTITUTE OF COMPUTING

CHANDIGARH UNIVERSITY



PROJECT FILE

Subject Name: Computer programming

Subject Code: 24CAH-101

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SUBMITTED TO: - Mr. Arvinder Singh

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HOTEL BOOKING SYSTEM

➤ OVERVIEW

- A hotel booking system is a software application designed to facilitate the management of hotel room bookings, guest information, and room availability.

➤ Key Features of the Program

1. **Simplicity:** Easy to use for both users and administrators.
2. **Efficiency:** Quickly checks room availability and manages bookings.
3. **Scalability:** Can be expanded to include more features, such as payment processing or user authentication.

➤ CONCLUSION

- This simple hotel booking system serves as a foundational project that demonstrates basic programming concepts in C, including structures, functions, and user input handling. It can be expanded and enhanced for more complex requirements as needed.

CODE

```
9 #include <stdio.h>
10 #include <stdlib.h>
11 #include <string.h>
12
13 #define MAX_ROOMS 10
14 #define MAX_NAME 50
15
16 typedef struct {
17     int roomNumber;
18     char guestName[MAX_NAME];
19     int isBooked;
20 } Room;
21
22 Room hotel[MAX_ROOMS];
23
24 void initializeRooms() {
25     for (int i = 0; i < MAX_ROOMS; i++) {
26         hotel[i].roomNumber = i + 1;
27         hotel[i].isBooked = 0; // 0 means not booked
28     }
29 }
30
31 void displayAvailableRooms() {
32     printf("Available Rooms:\n");
33     for (int i = 0; i < MAX_ROOMS; i++) {
34         if (!hotel[i].isBooked) {
35             printf("Room %d\n", hotel[i].roomNumber);
36         }
37     }
38 }
39
40 void bookRoom() {
41     int roomNumber;
42     char name[MAX_NAME];
43
44     displayAvailableRooms();
45     printf("Enter room number to book: ");
46     scanf("%d", &roomNumber);
47
48     if (roomNumber < 1 || roomNumber > MAX_ROOMS || hotel[roomNumber - 1].isBooked) {
49         printf("Invalid room number or room is already booked.\n");
50         return;
51     }
52
53     printf("Enter your name: ");
54     scanf("%[^\n]", name); // Read string with spaces
55
56     hotel[roomNumber - 1].isBooked = 1;
57     strcpy(hotel[roomNumber - 1].guestName, name);
58     printf("Room %d booked successfully for %s!\n", roomNumber, name);
59 }
60
61 void displayBookings() {
62     printf("Current Bookings:\n");
63     for (int i = 0; i < MAX_ROOMS; i++) {
64         if (hotel[i].isBooked) {
65             printf("Room %d is booked by %s\n", hotel[i].roomNumber, hotel[i].guestName);
66         }
67     }
68 }
69
```

```
70 - int main() {
71     int choice;
72     initializeRooms();
73
74     do {
75         printf("\nHotel Booking System\n");
76         printf("1. Display Available Rooms\n");
77         printf("2. Book a Room\n");
78         printf("3. Display Bookings\n");
79         printf("4. Exit\n");
80         printf("Enter your choice: ");
81         scanf("%d", &choice);
82
83         switch (choice) {
84             case 1:
85                 displayAvailableRooms();
86                 break;
87             case 2:
88                 bookRoom();
89                 break;
90             case 3:
91                 displayBookings();
92                 break;
93             case 4:
94                 printf("Exiting the system.\n");
95                 break;
96             default:
97                 printf("Invalid choice. Please try again.\n");
98         }
99     } while (choice != 4);
100
101     return 0;
102 }
```

OUTPUT

```
Hotel Booking System
1. Display Available Rooms
2. Book a Room
3. Display Bookings
4. Exit
Enter your choice: 2
Available Rooms:
Room 1
Room 2
Room 3
Room 4
Room 5
Room 6
Room 7
Room 8
Room 9
Room 10
Enter room number to book: 3
Enter your name: sumit
Room 3 booked successfully for sumit!

Hotel Booking System
1. Display Available Rooms
2. Book a Room
3. Display Bookings
4. Exit
Enter your choice: 4
Exiting the system.
```