

**Project Title:** Hotel Room Management System

**Description:** Hotel Room Management System is a robust software solution developed in C++ to streamline hotel operations and enhance customer experience. From managing room availability to handling customer reservations and housekeeping tasks, our system offers a comprehensive suite of features designed to optimize hotel management processes.

**Key Features:**

- **Room Management:** Admins can easily add, view, search, update, and delete room information, ensuring accurate and up-to-date room inventory.
- **Customer Management:** Admins have access to detailed customer profiles and can efficiently search for specific customer information.
- **Reservation Management:** Admins can oversee the reservation process, manage check-in/check-out procedures, and ensure smooth transitions between guest stays.
- **Room Reservation:** Customers can check room availability, make reservations, and manage bookings seamlessly, with transparent pricing calculations and flexible cancellation options.
- **Profile Management:** Customers can easily update their profile information, ensuring that their details are always up-to-date.
- **Housekeeping Management:** Housekeepers can update room statuses promptly, ensuring timely cleaning and preparation of rooms for incoming guests.

**Skills:** C++, MySQL

## Screenshots:

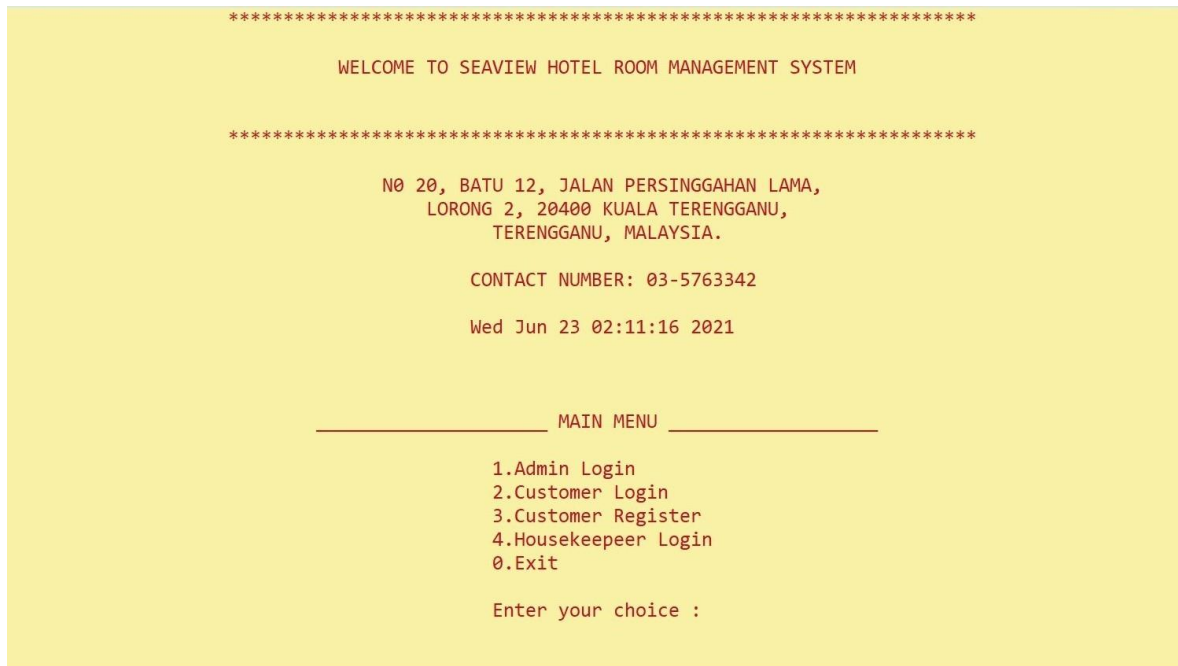


Figure 1: Users will see the main page for Hotel Room Management System.

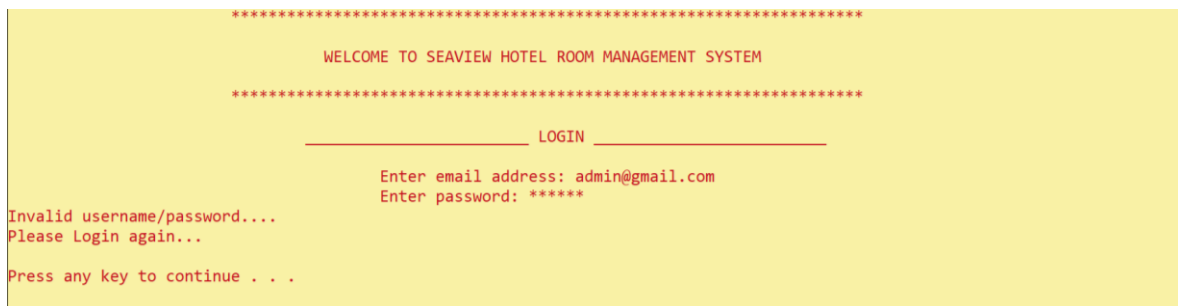


Figure 2: Users need to login using email and password.

```
WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM

*****

REGISTER

Enter Your Name: lily

Enter Mobile Number:
0123
Invalid Format (10 digit)

Enter Mobile Number:
0123456678

Enter Address: pulau pinang

Enter Email Address: lily.com
Missing @ symbol or email should end with '.com'

Enter Email Address: lily@gmail.com

Enter Password: lily
Password must contain at least 1 digit(0 to 9)
Password must contain at least 1 special character
Password must contain at least 1 uppercase character
Password must contain at least 8 characters
Invalid Input

Enter Password: Lily_123
```

Figure 3: Users will need to register first if they do not have an account yet.

```
*****

WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM

*****

ADMIN MENU

1.Manage room
2.Manage customer
3.Manage reservation
4.Checkin
5.Checkout
6.Exit

Enter your choice :
```

Figure 4: If users login as admin, they will see this menu.

```
*****

WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM

*****

MANAGE ROOM

1.Add room
2.Show room
3.Search room
4.Update room
5.Delete room
6.Back

Enter your choice :
```

Figure 5: If admins choose manage room, they will see this menu.

```
*****
WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM
*****

      ADD ROOM

Enter Room Number: 105
Enter Type (S/N): S
Enter Capacity: 5
Enter Aircond (Y/N): Y
Enter TV (Y/N): Y
Enter Wifi (Y/N): Y
Enter Price per night (RM): 250
Enter Status (A/NA): A
```

Figure 6: Admins can add new room to the system by inserting required information .

```
*****
WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM
*****

      SHOW ROOM

1.Show all room
2.Show room at Level 1
3.Show room at Level 2
4.Back

Enter your choice :
```

Figure 7: Admins can view information for all rooms or rooms at specific level.

```

_____ ALL ROOM _____

| Room No | Type | Capacity | Aircond | TV | Wifi | Price | Status |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 101 | S | 5 | Y | Y | Y | 350.00 | IN |
| 102 | S | 5 | Y | Y | Y | 350.00 | NA |
| 103 | S | 5 | Y | Y | Y | 350.00 | A |
| 104 | S | 5 | Y | Y | Y | 250.00 | A |
| 105 | S | 5 | Y | Y | Y | 250.00 | OUT |
| 201 | N | 2 | Y | Y | Y | 200.00 | BOOKED |
| 202 | N | 2 | Y | Y | Y | 200.00 | A |
| 203 | N | 2 | Y | Y | Y | 200.00 | A |
| 204 | N | 2 | Y | Y | N | 150.00 | A |
| 205 | N | 2 | Y | Y | N | 150.00 | A |
|-----|-----|-----|-----|-----|-----|-----|-----|

TOTAL NUMBER OF RECORDS MADE SO FAR : 10

_____ SHOW REPORT _____

| Status | Total | Percentage | |
|---|---|---|---|
| 1) AVAILABLE | 6 | 60% | ***** |
| 2) NOT AVAILABLE | 1 | 10% | ** |
| 3) BOOKED | 1 | 10% | ** |
| 4) CHECKED IN | 1 | 10% | ** |
| 5) CHECKED OUT | 1 | 10% | ** |

Press 'm' for Menu or any other key to Exit:

```

Figure 8: If admins choose view information for all rooms, they can see room details and report that concludes occupancy rates based on room status.

```

*****

WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM

*****

_____ SEARCH ROOM _____

Enter Room No: 101

| Room No | Type | Capacity | Aircond | TV | Wifi | Price | Status |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 101 | S | 5 | Y | Y | Y | 350.00 | IN |
|-----|-----|-----|-----|-----|-----|-----|-----|

Press 'm' for Menu, 'a' to Search again or any other key to Exit:

```

Figure 9: Admins can search information for existing room.

```

*****
WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM
*****

_____ UPDATE ROOM _____

Enter Room No: 105

-----
| Room No | Type | Capacity | Aircond | TV | Wifi | Price | Status |
-----
| 105     | S    | 5         | Y        | Y  | Y    | 250.00 | OUT    |
-----

Enter Type (x to not change) (S/N): x
Enter Capacity (x to not change): x
Enter Aircond (x to not change) (Y/N): x
Enter TV (x to not change) (Y/N): x
Enter Wifi (x to not change) (Y/N): x
Enter Price (x to not change) (RM): 350
Enter Status (x to not change) (A/NA): x

```

Figure 10: Admins can update information for existing room.

```

*****
WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM
*****

_____ DELETE ROOM _____

-----
| Room No | Type | Capacity | Aircond | TV | Wifi | Price | Status |
-----
| 101     | S    | 5         | Y        | Y  | Y    | 350.00 | IN      |
| 102     | S    | 5         | Y        | Y  | Y    | 350.00 | NA      |
| 103     | S    | 5         | Y        | Y  | Y    | 350.00 | A       |
| 104     | S    | 5         | Y        | Y  | Y    | 250.00 | A       |
| 105     | S    | 5         | Y        | Y  | Y    | 250.00 | OUT     |
| 201     | N    | 2         | Y        | Y  | Y    | 200.00 | BOOKED  |
| 202     | N    | 2         | Y        | Y  | Y    | 200.00 | A       |
| 203     | N    | 2         | Y        | Y  | Y    | 200.00 | A       |
| 204     | N    | 2         | Y        | Y  | N    | 150.00 | A       |
| 205     | N    | 2         | Y        | Y  | N    | 150.00 | A       |
-----

Enter Room No: 102

```

Figure 11: Admins can delete information for existing room.

```

*****
WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM
*****

-----
| Id | Name | Phone | Address |
-----
| 1  | lisa | 0127473376 | johor |
| 2  | john | 0124536788 | kuala lumpur |
| 3  | abu  | 12345666   | melaka |
| 4  | ali  | 1234567899 | selangor |
| 5  | maria | 1234567789 | melaka |
-----

TOTAL NUMBER OF RECORDS SO FAR : 5

Press 'm' to Menu any other key to Exit:

```

Figure 12: If admins choose manage customer, they can see information for all customers.

```
*****
WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM
*****

Enter Customer Name: lisa

-----
| Id | Name | Phone | Address |
-----
| 1 | lisa | 0127473376 | johor |
-----

Press 'm' to Menu, 'a' to Search again and any other key to Exit:
```

Figure 13: Admins can search information for existing customer.

```
*****
WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM
*****

-----
| Id | Room No | Cust No | Checkin | Checkout | Total | Deposit | Status |
-----
| 1 | 103 | 2 | 10/6/2021 | 12/6/2021 | 700.00 | 200.00 | CANCELLED |
| 2 | 105 | 5 | 15/6/2021 | 17/6/2021 | 500.00 | 150.00 | CHECKED OUT |
| 3 | 101 | 2 | 1/7/2021 | 3/7/2021 | 700.00 | 150.00 | CHECKED IN |
| 4 | 201 | 3 | 1/7/2021 | 3/7/2021 | 400.00 | 100.00 |
-----

TOTAL NUMBER OF RECORDS SO FAR : 4

Press 'm' to Menu any other key to Exit:
```

Figure 14: If admins choose manage reservation, admin can see information for all reservations .

```
*****
WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM
*****

Enter Room No: 101

-----
| Id | Room No | Cust No | Checkin | Checkout | Total | Deposit | Status |
-----
| 3 | 101 | 2 | 1/7/2021 | 3/7/2021 | 700.00 | 150.00 | CHECKED IN |
-----

Press 'm' to Menu, 'a' to Search again and any other key to Exit:
```

Figure 15: Admins can search information for existing reservation.



```

*****
WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM
*****

_____ CHECK IN _____

Do you wish to continue? Press(Y/N) : y

Enter Room No: 101

```

Figure 16: Admins can manage check in process for each customer. After the check in process is confirmed, the current status for the room will be changed from “Booked” to “In”. At the same time, the reservation status will be changed to “Checked In”.

```

*****
WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM
*****

_____ CHECK OUT _____

Do you wish to continue? Press (Y/N) : y

Enter Room No: 105

```

Figure 17: Admins can manage check out process for each customer. After the check out process is confirmed, the current status for the room will be changed from “In” to “Out”. At the same time, the reservation status will be changed from “Checked In” to “Checked Out”.

```

*****
WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM
*****

_____ CUSTOMER PROFILE _____

ID: 1
Name: lisa
Phone No: 0127473376
Address: johor
Email: lisa@gmail.com

Enter Name (x to not change): x
Enter Phone (x to not change): x
Enter Address (x to not change): x
Enter Email (x to not change): x

```

Figure 18: If users login as customer, they can update their profile information.



Room No	Type	Capacity	Aircond	TV	Wifi	Price	Status
103	S	5	Y	Y	Y	350.00	A
104	S	5	Y	Y	Y	250.00	A
202	N	2	Y	Y	Y	200.00	A
203	N	2	Y	Y	Y	200.00	A
204	N	2	Y	Y	N	150.00	A
205	N	2	Y	Y	N	150.00	A

Do you wish to continue? Press(Y/N)y

Enter Room No: 205

Check In Date  
Enter Date (1 - 31): 23  
Enter Month (1 - 12): 6  
Enter Year: 2021

Check Out Date  
Enter Date of month(1 - 31): 25  
Enter Month: 6  
Enter Year: 2021

Total price: RM300  
Our hotel gives you 20% promotion. Total price after promotion: RM240  
Enter Deposit: 150

Figure 19: Customers can make reservation by inserting required information. The system will calculates the exact amount that have to be paid by customers for their preferred room based on how many days customers will be staying at the hotel. After the room is confirmed, the current status for the room will be changed from “Available” to “Booked”.

```

*****
WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM
*****

      PROFILE DETAILS

ID: 5
Name: maria
Phone No: 1234567789
Address: melaka
Email: maria@gmail.com

      RESERVATION DETAILS

ID: 5
Room No: 105
Reservation Date: Fri Jun 11 15:55:05 2021

Checkin: 5/7/2021
Checkout: 7/7/2021
Total: RM500.00
Deposit: RM150.00

Press 'm' to Menu and any other key to Exit:

```

Figure 20: Customers can view information for their profile and reservation.

```

*****
WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM
*****

      CANCEL RESERVATION

Do you wish to cancel your reservation? Press(Y/N) : y

```

Figure 21: Customers have the option to cancel their reservation. After the cancellation process is confirmed, the current status for the room will be changed from “Booked” to “Available”. At the same time, the reservation status will be changed to “Cancelled”.

```
*****
WELCOME TO SEAVIEW HOTEL ROOM MANAGEMENT SYSTEM
*****

CHANGE ROOM STATUS

Do you wish to continue? Press(Y/N) : y

Have you already clean the room? Press(Y/N) : y

Enter Room No: 105
```

Figure 22: If users login as housekeeper, they can change the status of the room that they already clean after customer check out. The room status will be changed from “Out” to “Available”

**Conclusion:** The Hotel Room Management System offers a user-friendly interface and powerful functionality to streamline hotel operations and enhance customer satisfaction. By automating key processes and providing intuitive tools for both administrators and customers, our system is designed to meet the evolving needs of modern hotels effectively.