



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

**SCHOOL OF COMPUTING**  
Faculty of Engineering

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# **SCSJ2154 (OOP)**

## **PROJECT REPORT**

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**Project Title:** **UTM Advanced Hotel Management System**

### **Group Members:**

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# MINI PROJECT DESCRIPTION

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## 1. INTRODUCTION

The system we're building is a booking and hotel management system. The system will be developed based on the java object-oriented concepts. In this system, the user will be able to book, manage and view different information about a hotel. This will save his time, labor, and money in a good way. The java fundamentals that we have learned throughout the semester will be implemented in this project. The project will allow a user to have the option to select things he wants to do. The project will contribute to the general public and hotel management systems as well. This is a modernized concept important for solving some issues related to hotel management systems.

## 2. PROBLEM STATEMENT

It is now simple to find a hotel by browsing internet platforms and reading reviews from other clients. However, although clients are receiving their desired hotels, the owners and management system are encountering several challenges in organizing and obtaining a single perspective multifunctional system for arranging the entire system in a single framework. For this reason, in order to alleviate the pain caused by the lack of a well synchronized hotel management system, as well as its other features, we will be building this system in addition to the following enhancements. The techniques are more automated than the manual or hybrid systems now in use in the majority of hotels of various kinds.

The system will include:

1. Showing a whole dashboard of summarized functions of the hotel system in a single view approach.
2. In the viewpoint options will be like the following and the user can select the options based on their requirements and proceed to their functionalities.

2.1. Room details

2.2. Room availability

2.3. Book room

2.4. Rent Vehicles

2.5. Checkout

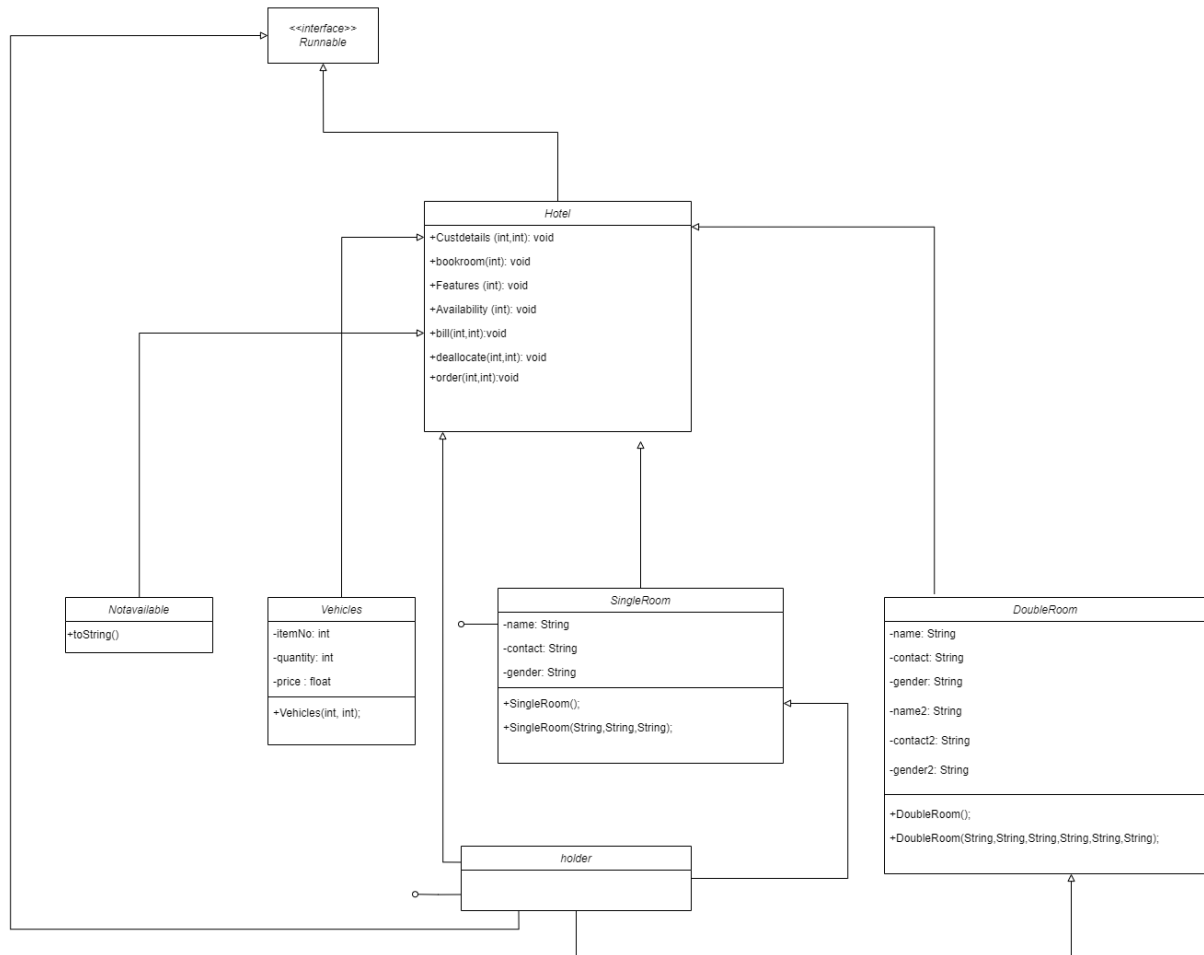
2.6. Exit system

3. Selecting the room based on the room types will be shown.
4. Available rooms that are empty based on the customer will be shown.
5. If not, available that will be also visible in the system.
6. The customer will be given varied empty rooms as an option to be selected from.

7. Booking confirmation will be provided immediately.
8. Selecting upon the room number the customer will be able to get a food menu to order from and the bill will be added to the final cost total along with the hotel bill.
9. The quantity of the food can also be selected after picking an item from the menu.
10. As the customer will checkout the whole bill will be printed at once calculating the charge of the room and the food that was consumed based on the quantity with the set price existing in the system.

### 3. CLASS DIAGRAM OF THE PROJECT

The Class Diagram for the Hotel Management system is as follows.



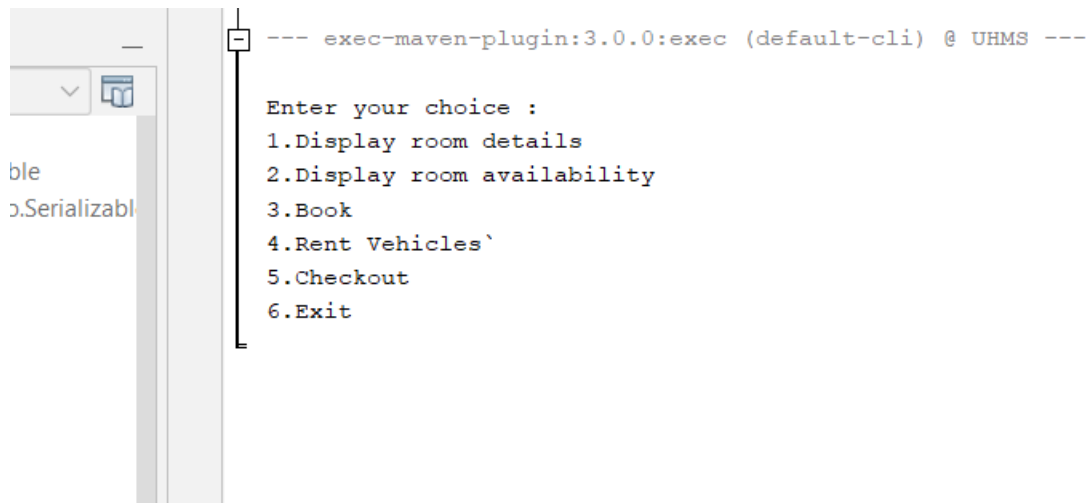
#### 4. TECHNIQUES/SOFTWARE/TOOLS BEING USED

State or tick the main concept of Java Programming to be used in this project

<input type="checkbox"/> ENUM	<input checked="" type="checkbox"/> ASSOCIATION*
<input checked="" type="checkbox"/> ARRAY LIST /. VECTOR	<input type="checkbox"/> COMPOSITION
<input checked="" type="checkbox"/> ARRAY	<input type="checkbox"/> AGGREGATION
<input checked="" type="checkbox"/> ARRAY OF OBJECT	<input checked="" type="checkbox"/> INHERITANCE*
<input checked="" type="checkbox"/> FILE*	<input checked="" type="checkbox"/> STATIC METHOD
<input type="checkbox"/> POLIMORPHISM*	<input checked="" type="checkbox"/> ABSTRACT CLASS*
<input checked="" type="checkbox"/> INTERFACE CLASS*	<input checked="" type="checkbox"/> EXCEPTION HANDLING*
<input type="checkbox"/> GUI APPLLLICATION	Others: _____

#### 5. OUTPUT:

View all options for selecting:



```
--- exec-maven-plugin:3.0.0:exec (default-cli) @ UHMS ---  
  
Enter your choice :  
1.Display room details  
2.Display room availability  
3.Book  
4.Rent Vehicles`  
5.Checkout  
6.Exit
```

Check multiple room details:

```
1
Choose room type :
1.Luxury Double Room
2.Deluxe Double Room
3.Luxury Single Room
4.Deluxe Single Room

1
Number of double beds : 1
AC : Yes
Free breakfast : Yes
Charge per day:2000

Continue : (y/n)
y

Enter your choice :
1.Display room details
2.Display room availability
3.Book
4.Rent Vehicles`
5.Checkout
6.Exit

1

Choose room type :
1.Luxury Double Room
2.Deluxe Double Room
3.Luxury Single Room
4.Deluxe Single Room

3
Number of single beds : 1
AC : Yes
Free breakfast : Yes
Charge per day:3000

Continue : (y/n)
```

## Check different room availability

```
2

Choose room type :
1.Luxury Double Room
2.Deluxe Double Room
3.Luxury Single Room
4.Deluxe Single Room

1
Number of rooms available : 10

Continue : (y/n)
y

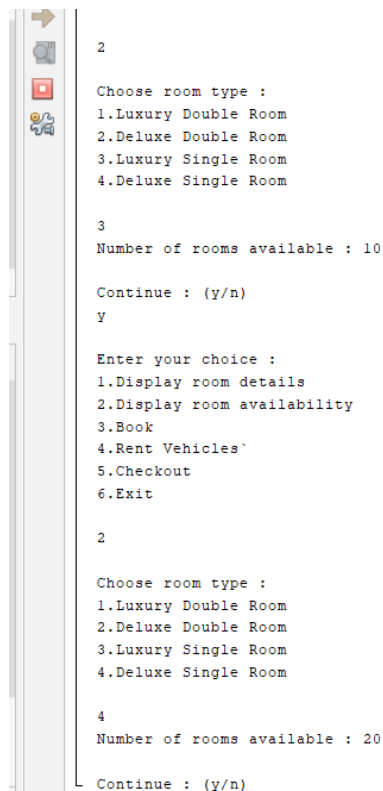
Enter your choice :
1.Display room details
2.Display room availability
3.Book
4.Rent Vehicles`
5.Checkout
6.Exit

2

Choose room type :
1.Luxury Double Room
2.Deluxe Double Room
3.Luxury Single Room
4.Deluxe Single Room

2
Number of rooms available : 20

Continue : (y/n)
y
```



```
2

Choose room type :
1.Luxury Double Room
2.Deluxe Double Room
3.Luxury Single Room
4.Deluxe Single Room

3
Number of rooms available : 10

Continue : (y/n)
y

Enter your choice :
1.Display room details
2.Display room availability
3.Book
4.Rent Vehicles`
5.Checkout
6.Exit

2

Choose room type :
1.Luxury Double Room
2.Deluxe Double Room
3.Luxury Single Room
4.Deluxe Single Room

4
Number of rooms available : 20

L Continue : (y/n)
```

## Booking room if input

```
3

Choose room type :
1.Luxury Double Room
2.Deluxe Double Room
3.Luxury Single Room
4.Deluxe Single Room

1

Choose room number from :
1,2,3,4,5,6,7,8,9,10,
Enter room number: q
Invalid Option

- Continue : (y/n)
```

## Booking confirmation

```
3

Choose room type :
1.Luxury Double Room
2.Deluxe Double Room
3.Luxury Single Room
4.Deluxe Single Room

1

Choose room number from :
1,2,3,4,5,6,7,8,9,10,
Enter room number: 1

Enter customer name: Aaraf
Enter contact number: 0110002020202
Enter gender: Male
Enter second customer name: Adib
Enter contact number: 0381203823231
Enter gender: Male
Room Booked

Continue : (y/n)
```



## Booking a vehicle

```
4
Room Number -1

=====
Cars:
=====

1.Perdana 80RM
2.Porche 100RM
3.Lambo 150RM
4.JDM 200RM

1
How many- 1
Vehicle booking successful
Do you want to order anything else ? (y/n)
y
2
How many- 1
Vehicle booking successful
Do you want to order anything else ? (y/n)
n

Continue : (y/n)
y
```

## Payment and checkout

```
Enter your choice :
1.Display room details
2.Display room availability
3.Book
4.Rent Vehicles`
5.Checkout
6.Exit

5
Room Number -1
Room used by Aaraf
Do you want to checkout ?(y/n)
y

***
Bill:-
*

Room Charge - 4000

=====
Vehicles Charges:-
=====
Item    Quantity    Price
-----
Perdana    1         50.0
Porche     1         60.0

Total Amount- 4110.0
Deallocated succesfully
```