Object Oriented Analysis and Design

CASE STUDY 2

Hotel Reservation System

A Hotel consisting of 100 rooms needs to computerize their manual Hotel Reservation System. The systems analyst who was assigned to this project has visited the Hotel and he has gathered the following information about the system. The following text describes his findings.

The 100 rooms available are categorized into different room types and each room type has different rates. The number of rooms in different types and the corresponding rates are as follows:

Room Type	Room No. from/to	Rate/Night
Single	1 to 60	Rs. 1000
Double	61 to 89	Rs. 1800
Suite	90 to 100	Rs. 5000

A Customer can reserve a room by calling the hotel receptionist. The receptionist will answer customer's queries regarding the room types, room rates, modes of payments available and any discounts the customer is entitled to etc. The receptionist will then take the following particulars from the customer, if customer wishes to proceed with the reservation.

Customer's name, Contact address, Country, Sex,
Type of accommodation, the period of stay, expected check in date.

Subsequently the receptionist will check the room availability. If a room is available, the customer is informed about the room availability. If customer accepts the reservation, a room number is allocated at the same time. The customer is also informed if a room is not available.

A customer can cancel the reservation at any time. It can be done by calling or by sending a fax. The receptionist is also responsible for handling the cancellations.

When the customer checks-in at the hotel on the reserved date, the receptionist will obtain the customers desired mode of payment. The customer may be entitled to a discount based on the payment mode selected.

The different payment modes and their discounts are as follows:

Payment Modes		*Discount*
Cash	*-*	*No discount*
Traveler's Cheque	*-*	*2% eg. AMEX, Cooks etc.*
Credit Card	*-*	*3% eg. Diners, Master etc.*
Company	*-*	*Depend upon the company,*
		Eg. NEC 12%, IBM 10% etc.

The Customer can checks-out from the hotel at any time by informing the receptionist.The receptionist will immediately inform the billing Clerk to handle the billing. The details about the Payments such as discounts given, company name, kind of traveler's cheques used, and credit card details etc. are preserved for any future reference.

If the customer needs to extend the stay he/she may do so by informing the receptionist. Receptionist will check the room availability and extension is accepted if rooms are available.

Based on the case study given above, draw
1. **Use Case Diagram**
2. **Class diagram**
3. **one Sequence Diagram**
4. **one Activity Diagram**
5. **one State Diagram**