



# Sardar Patel Institute of Technology

Bhavan's Campus, MunshiNagar, Andheri(W), Mumbai:400058,India

(Autonomous College of Affiliated to University of Mumbai)

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EXPERIMENT NO.:	2
AIM:	UML Diagram

## Use Case Diagram:

### List of Actors

Actor	Description
User	Students are responsible for creating, editing and deleting account.
Visitor	Parents who can visit their children.
Admin	System administrators who manage users and visitors of HMS.

### List of Use-Case

#	Use Case	Description
UC 1	Create Account	Register and set up a new user account in the system; if the user already has an account, provide a "Login" option.
UC 2	Delete Account	Permanently remove a user account and associated data from the system.
UC 3	Booking rooms	Hostel management systems enable users to check availability, and book rooms or beds.
UC 4	Check-In and Check-Out:	Hostel staff can use the system to efficiently check Students in and out, reducing wait times and paperwork.
UC 5	Billing and Payments	The system calculates and generates invoices, automating the billing process for guests. It can support various payment methods,



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		including cash, credit card, and online payment gateways.
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## Use CaseScenarios

### UC1:Create Account

<b>Use Case:</b>	UC1: Create Account	
<b>Goal:</b>	Register and set up a new user account in the system; if the user already has an account, provide a "Login" option.	
<b>Actors:</b>	User, Admin	
<b>Pre-condition:</b>	None	
<b>Post-condition:</b>	The user either successfully creates a new account or logs into their existing account.	
<b>Mainline Scenarios:</b>		
	<b>Actor Actions</b>	<b>System Actions</b>
	Provide Personal Information: The guest/student provides their personal details such as name, contact information, identification (ID) proof, and address.	If all information is valid and complete, the system creates a new guest/student account in the database.
	Choose Username and Password: The guest/student selects a unique username and password for accessing their account in the future.	Once the account is created and verified, the system provides login access to the guest/student, allowing them to make reservations, view booking history, and manage their profile.
<b>Alternate Flows:</b>	4. If the user enters invalid information, the system displays an error message and prompts the user to correct the information.	



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## UC2:Delete Account

<b>Use Case:</b>	UC2: Delete Account	
<b>Goal:</b>	Permanently remove a user account and associated data from the system.	
<b>Actors:</b>	User, Admin	
<b>Pre-condition:</b>	The user is logged into their account.	
<b>Post-condition:</b>	The user's account and associated data are permanently deleted.	
<b>Mainline Scenarios:</b>	<b>Actor Actions</b>	<b>System Actions</b>
	After logging in, the guest/student initiates the account deletion process. This may involve navigating to an account settings or profile section where the option to delete the account is available.	The system verifies the provided username and password to ensure that the person initiating the account deletion is the legitimate account holder.
	After providing the reason (if required), the guest/student confirms their intention to delete the account.	The system logs the account deletion activity for audit and record-keeping purposes.
<b>Alternate Flows:</b>	3.User Doesn't Confirm Deletion.	

## UC3:Booking rooms

<b>Use Case:</b>	UC3: Book room
<b>Goal:</b>	To check if there is any room available to book.
<b>Actors:</b>	User, Admin
<b>Pre-condition:</b>	The user is logged into their account.



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<b>Post-condition:</b>	The room is successfully allocated.	
<b>Mainline Scenarios:</b>		
	<b>Actor Actions</b>	<b>System Actions</b>
	The system displays a list of available rooms that match the guest/student's criteria, along with their prices and descriptions.	The system checks room availability for the specified check-in and check-out dates, ensuring that the selected rooms are not already booked.
	They review the booking details, including the selected room(s), dates, and total cost.	The system sends a booking confirmation to the guest/student, which may include check-in instructions and other relevant information.
<b>Alternate Flows:</b>		
	All rooms are occupied	



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## UC4:Check-in and Check-out

<b>Use Case:</b>	UC4: Check-in and Check-out	
<b>Goal:</b>	To maintain students check-in and check-out timing.	
<b>Actors:</b>	User	
<b>Pre-condition:</b>	The user has account	
<b>Post-condition:</b>	The timings are successfully edited and updated	
<b>Mainline Scenarios:</b>		
	<b>Actor Actions</b>	<b>System Actions</b>
	They provide their identification (e.g., ID card, passport) to verify their identity.	The system may assist the front desk staff in verifying the guest/student's identification by cross-referencing it with the data provided during the booking process.
	Once the check-in process is complete, they receive a room key or access card.	If the guest/student has a reservation, the system retrieves and displays the booking details for the front desk staff.
<b>Alternate Flows:</b>	Student does not have an account	

## UC5:Billing Payments

<b>Use Case:</b>	UC5: Billing Payments
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<b>Goal:</b>	To make payments securely	
<b>Actors:</b>	User	
<b>Pre-condition:</b>	The user is logged into their account.	
<b>Post-condition:</b>	Payment successful	
<b>Mainline Scenarios:</b>		
	<b>Actor Actions</b>	<b>System Actions</b>
	The guest/student requests a bill for their stay or additional services they've used (e.g., room charges, room service, minibar).	The system generates an itemized bill that includes all charges and taxes, providing a clear breakdown for the guest/student.
	After making the payment, they receive a payment receipt for their records.	The system maintains a history of payments for each guest/student, which can be useful for auditing and reporting purposes.
<b>Alternate Flows:</b>	Payment fails	

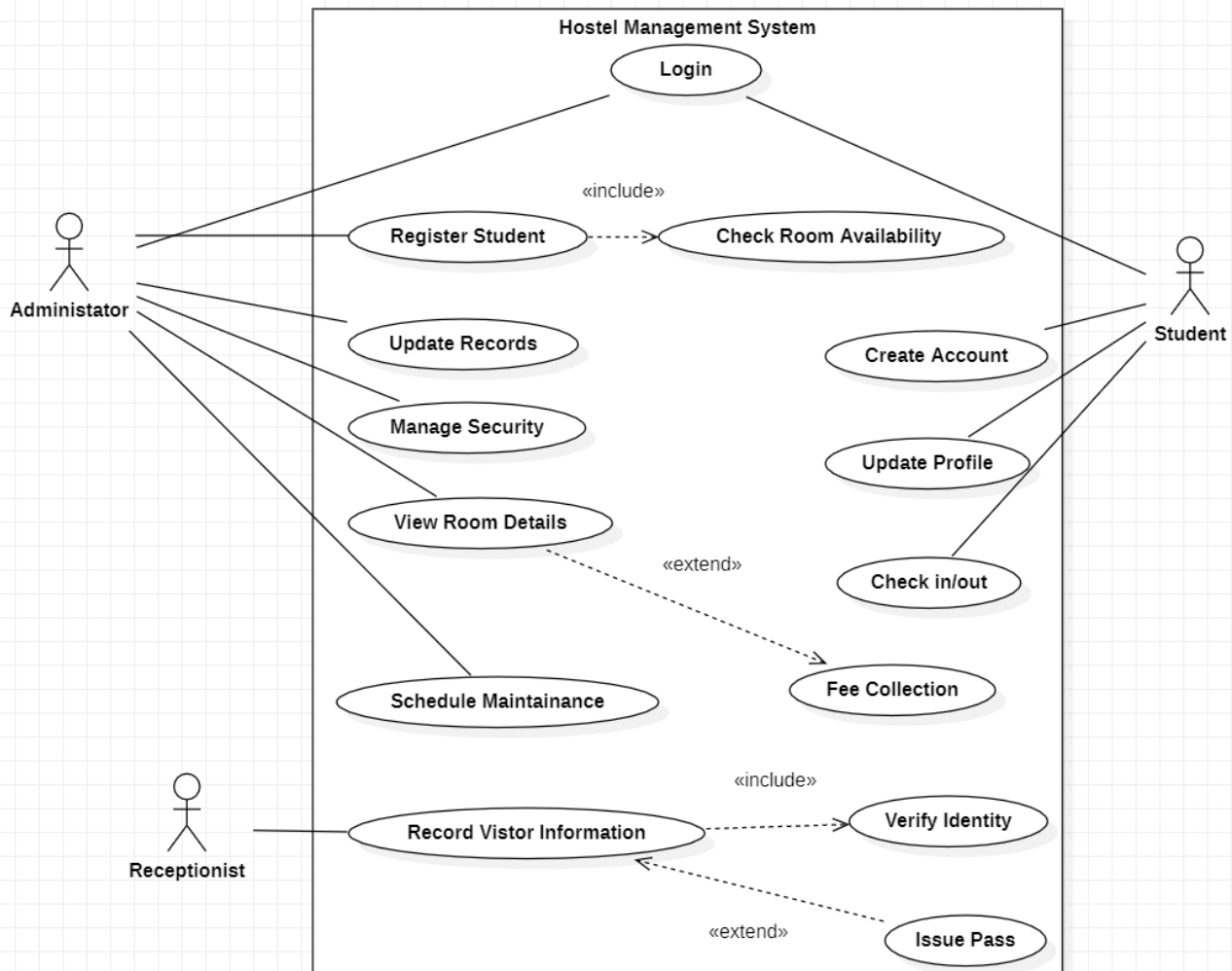


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## Use Case Diagram:

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**Conclusion:** Hence by completing these experiment we came to know about designing of UML diagram.





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