



**B.TECH. (CSE)**

**V SEMESTER**

**UE20303 –SOFTWARE ENGINEERING**

**PROJECT REPORT**

**ON**

**CONFERENCE ROOM BOOKING SYSTEM**

**SUBMITTED BY,**

**NAME**

**SRN**

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# **PROPOSAL OF THE PROJECT**

## **PROJECT TITLE : CONFERENCE ROOM BOOKING SYSTEM**

In every organization there is always need of meeting and conference rooms, to conduct various events. It is found that there is one conference hall in every organization, whether it is an educational institution or any company. Many different departments have to share this single conference hall for conducting its event. Hence there is always a possibility of the hall being booked by two or more departments on the same day. The clash in timing will be known to the departments only when the day of the event has reached, by that time it will be too late and very little time left for alternate arrangement. Hence an efficient and user friendly system is required to reserve the hall beforehand and make the information available to others to check the status of the hall before booking.

# SOFTWARE REQUIREMENTS SPECIFICATION

This section illustrates the functional requirements for CRRS web interface which is having 5 different web pages that enables customer to select and reserve room online. Each web page is supported by set of specific requirements given in below tables.

The requirements below are developed within the scope from customer perspective only.

Checking Availability Page :

## **Requirement Shell**

VER.	Version of requirement
REQ ID	Unique identification code of requirement
DESCRIPTION	Description of requirement
PRIORITIZATION ATTRIBUTE	Prioritization of requirement according to prioritization plot
TRACEABILITY ATTRIBUTE	Traceability relation to other artefacts

## **Requirement Shell in the table :**

Ver.	Req ID	Description	PrioritizationAttribute	TraceabilityAttribute
V1	R1.1	This page shall have a field for arrival and departure time selection	High	
V1	R1.2	This page shall have an option for selecting room type	High	Content of R1.3
V1	R1.3	Page shall show check availability and rates button to redirect customer to select a room page	High	Precondition to the requirements from SYSF2

**Selection of a Room Page :**

Ver.	Req ID	Description	PrioritizationAttribute	TraceabilityAttribute
V1	R2.1	Check the availability of rooms	High	Precondition to R2.2
V1	R2.2	Page shall display available rooms according to R2.1	High	Evolution of R2.1
V1	R2.2.1	Page shall display room pictures of all types of available rooms	Medium	Content R2.2
V1	R2.2.2	Page shall display room prices per hour of all available rooms	High	Content of R2.2
V1	R2.2.3*	Page shall display select & continue button which will redirect the customer to customer details page	High	Precondition to requirements to SYSF3
V1	R2.3	Page shall have sorting function to sort by price	High	
V1	R2.4	Price shall be displayed in Rupees	High	Miscellaneous of R2.2.2
V1	R2.5	Page shall display button to previous page with previous page name on the button	High	
V1	R2.6	Page shall display cancel button which will redirect the customer to Conference Room home page	High	

**Customer Details Page :**

Ver.	Req ID	Description	PrioritizationAttribute	TraceabilityAttribute
V1	R3.1*	Page shall display text field for Firstname	High	
V1	R3.2*	Page shall display text field for Lastname	High	
V1	R3.3*	Page shall display field for Telephone number	Medium	
V1	R3.4*	Page shall display field for E-mail address	High	
V1	R3.5*	Page shall display mandatory checkbox field for agreement of terms and conditions	High	
V1	R3.6	Page shall display submit details button which will redirect to payment page	High	Precondition to requirements of SYSF4
V1	R3.7	Page shall display button to previous page with previous page name on the button	High	
V1	R3.8	Page shall display cancel button which will redirect the customer to Conference Room home page	High	

### Payment Page :

Ver.	Req ID	Description	PrioritizationAttribute	TraceabilityAttribute
V1	R4.1	Page shall display Total price of selected room for selected number of nights	High	Evolution of R2.2.2 and R1.1
V1	R4.2	Page shall display field for Credit card number	High	
V1	R4.4	Page shall display field for expiration date of credit card	High	
V1	R4.5*	Page shall display mandatory checkbox field for agreement of terms and conditions	High	
V1	R4.6	Page shall display a Note: Card details will be used for authentication purposes only and the payment will be charged upon customer check-in	High	Miscellaneous of R4.7
V1	R4.7	Page shall display continue button which will redirect to confirmation page	High	Precondition to requirements of SYSF5
V1	R4.8	Page shall display button to previous page with previous page name on the button	High	
V1	R4.9	Page shall display cancel button which will redirect the customer to Conference Room home page	High	

### Confirmation Page :

Ver.	Req ID	Description	PrioritizationAttribute	TraceabilityAttribute
V1	R5.1	Page shall display previous inputs by customer as <a href="#">SYSF3R3.1-SYSF3R3.4</a>	High	Evolution of <a href="#">SYSF3R3.1</a> - <a href="#">SYSF3R3.4</a>
V1	R5.2	Page shall display arrival and departure times according to customer selection in <a href="#">SYSF1R1.1</a>	High	Evolution of <a href="#">SYSF1R1.1</a>
V1	R5.3	Page shall display room selection details chosen by customer according to <a href="#">SYSFR2.2.3</a>	High	Evolution of <a href="#">SYSFR2.2.3</a>
V1	R5.4	Page shall display total price according to <a href="#">SYSF4R4.1</a>	High	Evolution of <a href="#">SYSF4R4.1</a>

V1	R5.5	Page shall display customer payment details entered by customer according to SYSF4R4.2- SYSF4R4.4	High	Evolution of SYSF4R4.2- SYSF4R4.4
V1	R5.6	Page shall display confirm button which will redirect to Home page	High	
V1	R5.6.1	Page shall display a pop-up with a message: Thank you for your booking		
V1	R5.7	When customer clicks confirm button, All details from confirmation page will be stored in the Conference Room 's common database.	High	
V1	R5.8	Page shall display button to previous page with previous page name on the button	High	
V1	R5.9	Page shall display cancel button which will redirect the customer to Conference Room home page	High	
VI	R5.10	Upon Confirmation "Thank you for your booking" message shall be displayed	Medium	

### Other non-functional Requirements :

This section illustrates the non-functional requirements which includes performance, reliability, security, maintainability, portability requirements, use cases, use-case scenarios, solution- oriented requirements modelling, software quality attributes for CRRS web interface.

### Performance Requirements :

Ver.	Req ID	Description	PrioritizationAttribute	TraceabilityAttribute
V1	PFR1	Every booking submission & modifications should be updated in Conference Room System's common database within 10 seconds after each submission & modification activity	High	Constraints to R5.7

V1	PFR2	Results for cross checking of availability of rooms in internal database and customer's choice shall be in 5 seconds	High	Constraints to R2.1
V1	PFR3	Webpage UI load time should be within 2secs	High	Constraints to R1.6, R2.2.3, R2.5, R2.6, R3.6, R3.7, R3.8, R4.7, R4.8, R4.9, R5.9, R5.10, R5.6
V1	PFR4	Redirection page load time shall be within 2 secs	High	Constraints to R1.6, R2.2.3, R2.5, R2.6, R3.6, R3.7, R3.8, R4.7, R4.8, R4.9, R5.9, R5.10, R5.6

#### Reliability Requirements :

Ver.	Req ID	Description	Prioritization Attribute	Traceability Attribute
V1	RR1	Database should be synchronized to cloud every 5 minutes	High	
V3	RR2	System shall be accessible 98% of the time	High	

#### Maintainability Requirements :

Ver.	Req ID	Description	Prioritization Attribute	Traceability Attribute
V3	MTR1	No method in any object may exceed 100 lines of code	High	
V1	MTR2	System failure recovery shall be within 40 mins	High	

#### Portability Requirements :

Ver.	Req ID	Description	Prioritization Attribute	Traceability Attribute
V3	PTR1	System shall be accessible on mobile devices	High	Miscellaneous
V3	PTR2	System shall be accessible on Google Chrome, Firefox, Safari, Opera and Internet explorer	High	Miscellaneous



# PROJECT PLAN

## 1. Lifecycle :

The Software Development Life cycle followed will be AGILE specifically SCRUM since we will be performing tests, taking feedback and refining our product often according to the test results, and as per the feedback received from the stakeholders.

## 2. Tools :

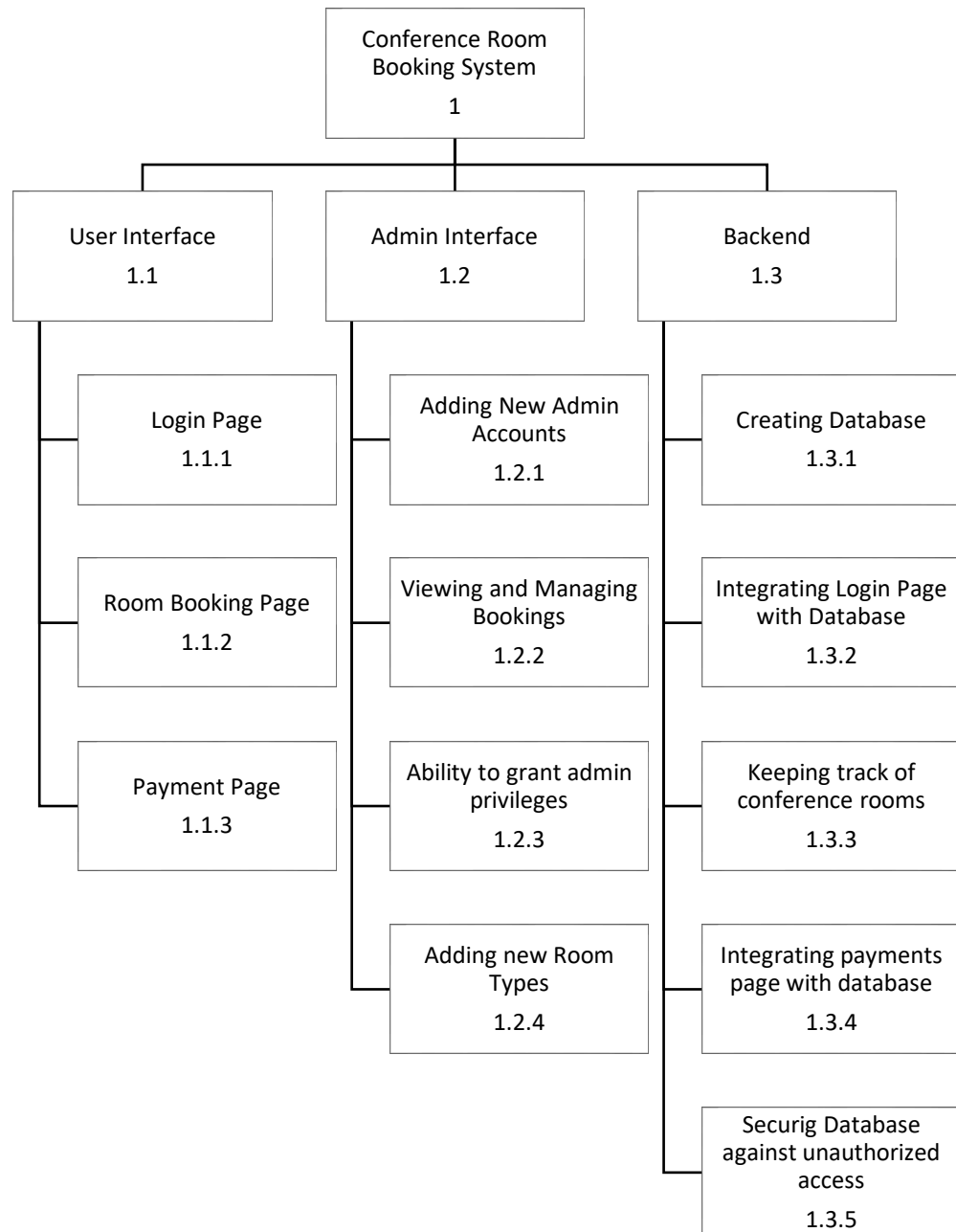
- Planning Tool : Gantt Chart
- Design Tool : Figma
- Version Control Tool : Git and GitHub
- Development Tool : VS Code IDE and GitHub
- Bug Tracking Tool : Zoho bug tracker

## 3. Deliverables :

PROJECT NAME	Conference Room Management System			PROJECT MANAGER	
PROJECT DELIVERABLE	A fully working conference room management system where users are able to book rooms and admin is able to manage conference rooms				
SCOPE STATEMENT	User should be able to login and book rooms while admin should be able to add rooms, manage bookings and create new admin accounts				
START DATE	24/08/2022	END DATE	20/11/2022	OVERALL PROGRESS	100%

TASK NAME	ASSIGNED TO	START DATE	END DATE	DURATION in days
<b>SPRINT 1</b>		24/08	20/09	28
Building Login Page frontend	Sanath Sreekanth	24/08	30/08	7
Creating database and integrating login page frontend with database	Sanmat	31/08	13/09	14
Building security features to secure database against unauthorized access	Shamith V S	13/09	20/09	7
<b>SPRINT 2</b>		21/09	18/10	28
Displaying different types of conference rooms available	Sampreeth Nadig	21/09	27/09	7
Building Room booking page and integrating with backend	Shamith V S	21/09	04/10	14
Building Payments page and integrating with backend	Sanath Sreekanth	05/10	18/10	14
<b>SPRINT 3</b>		19/10	16/11	28
Enabling manager to add new manager accounts with manager privileges and storing new account information in database	Sanmat	19/10	25/10	7
Enabling manager to add new room types	Sampreeth Nadig	25/10	09/11	14
Creating manager dashboard to manage bookings	Shamith V S	02/11	16/11	14

## 4. Work breakdown structure :

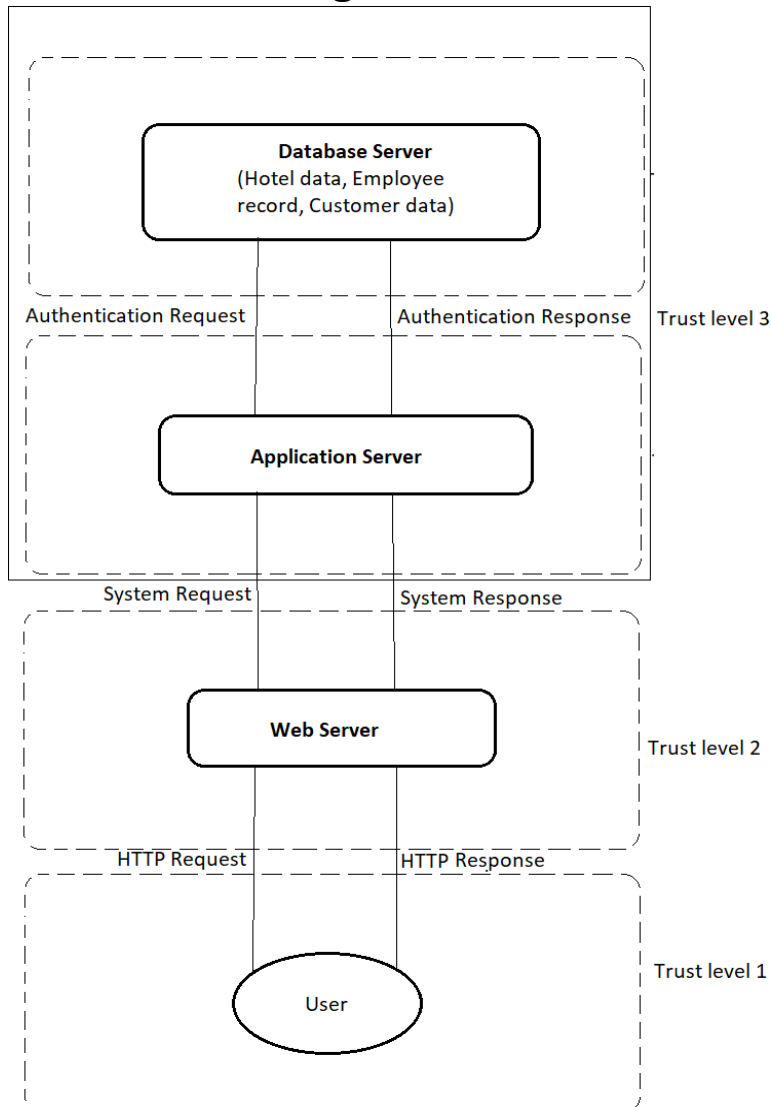


## 5. Gantt Chart :

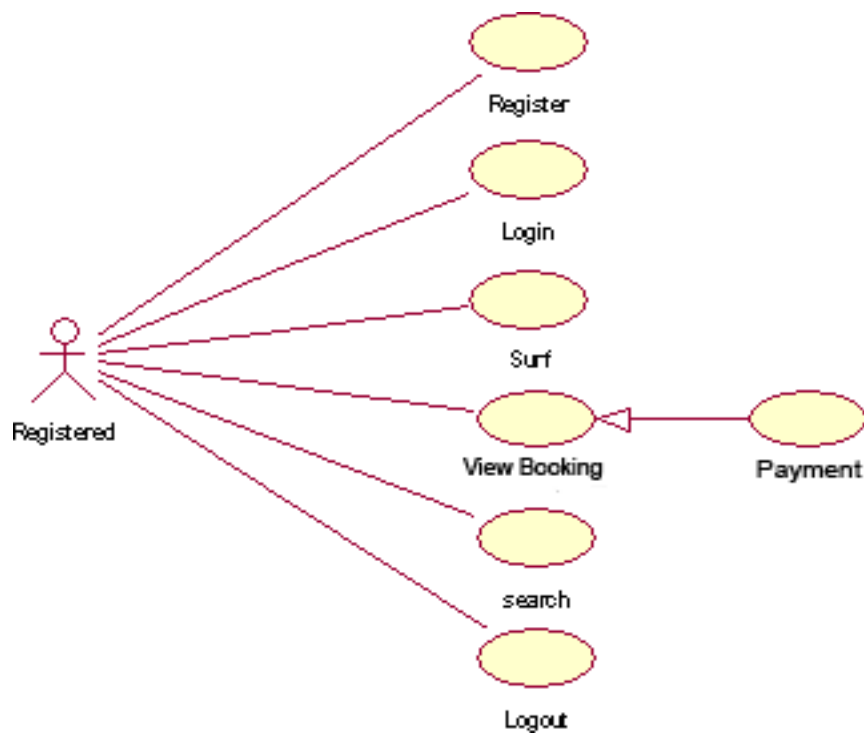
[illegible]

# DESIGN DIAGRAMS

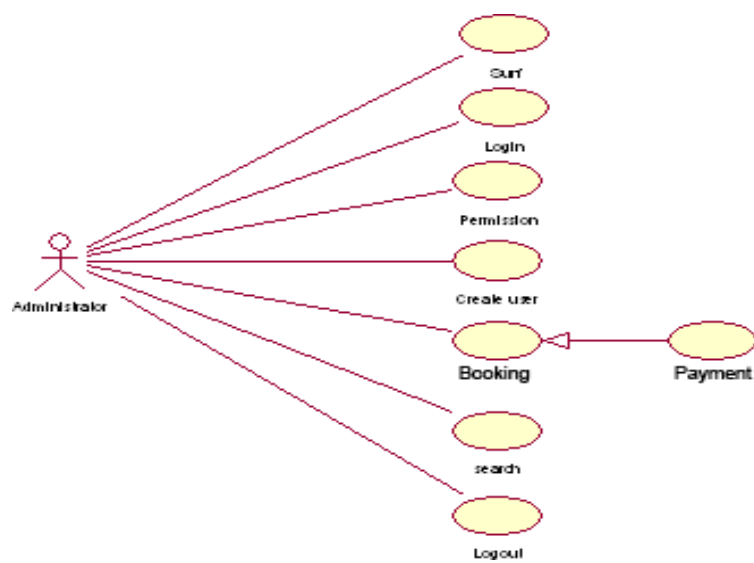
## Architecture Diagram :



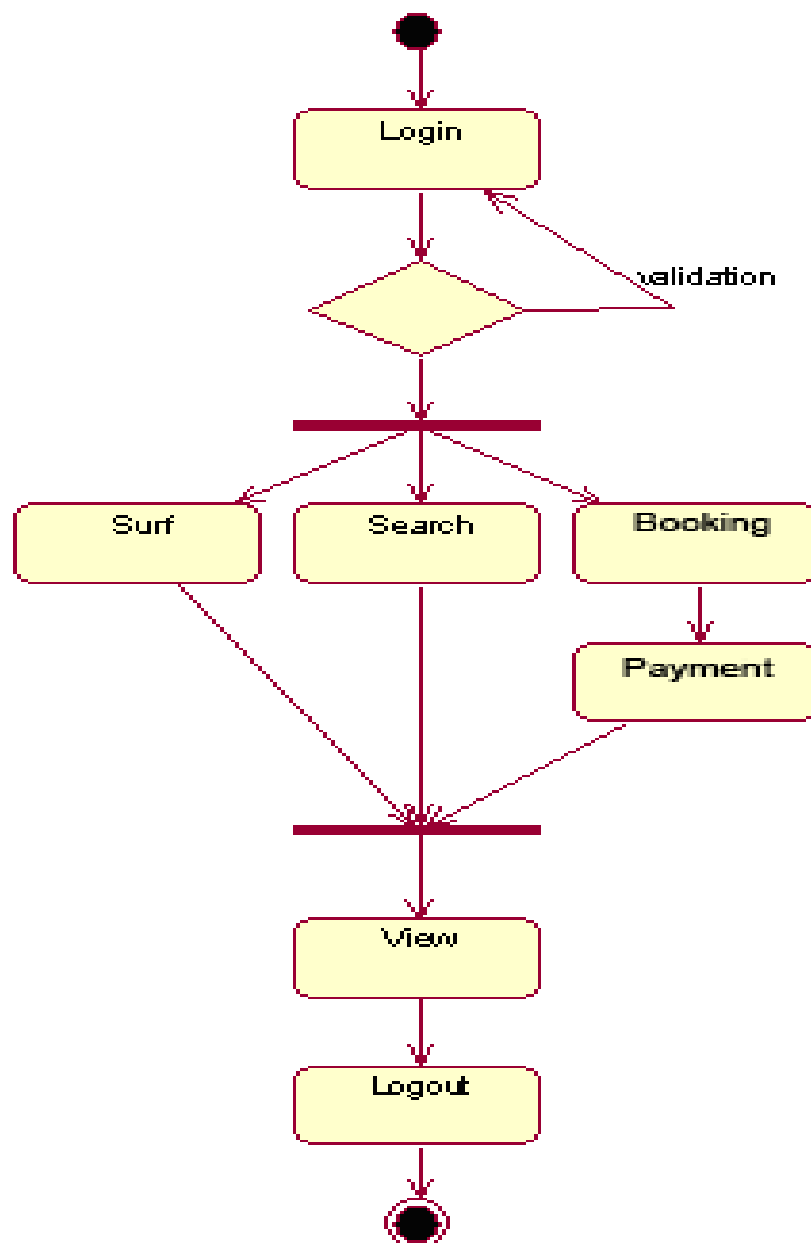
## USER use case diagram :



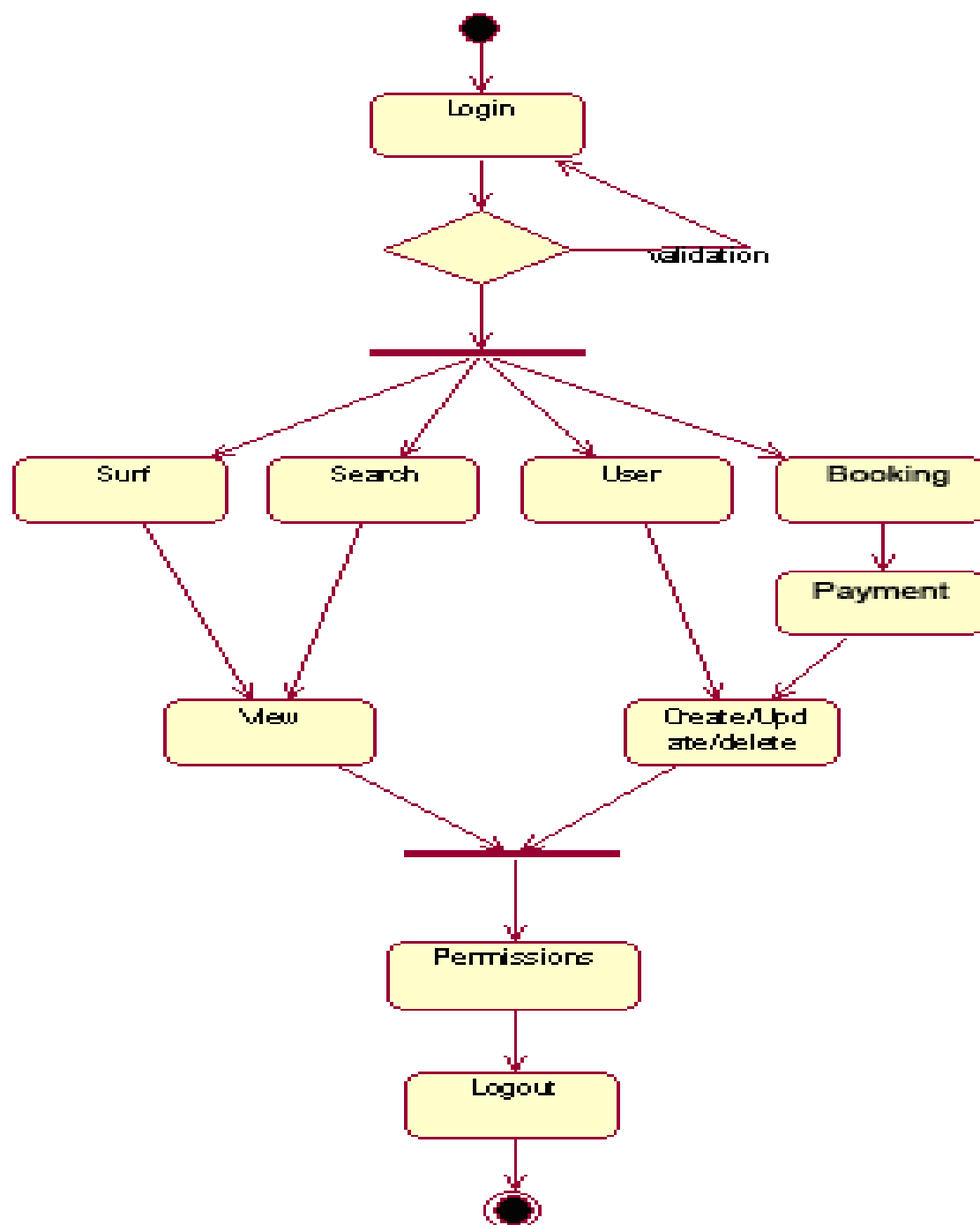
## ADMIN use case diagram :



## User activity diagram :

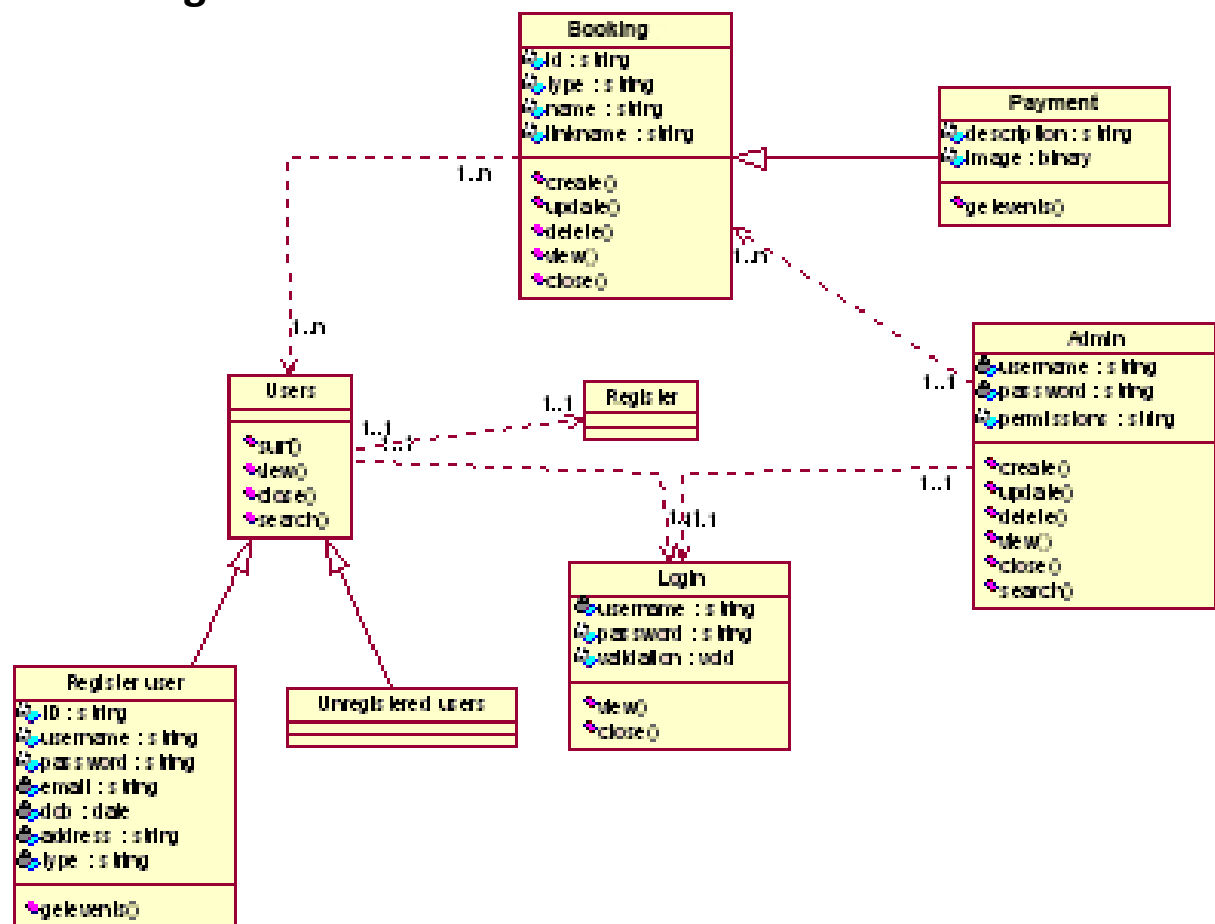


## Administrator activity diagram :

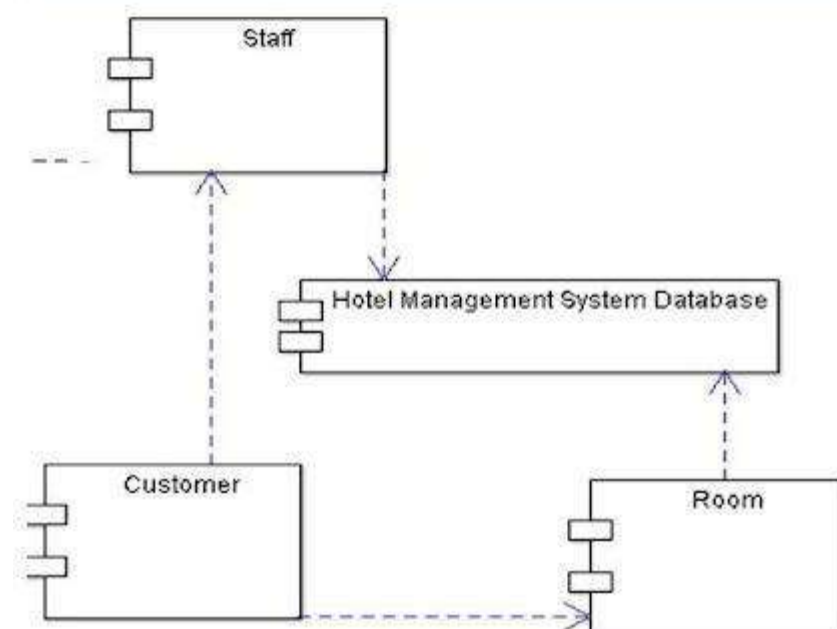




## Class diagram :



## Component diagram :



## Data flow diagram :



# TEST CASES

Test Case ID	Name of Module	Test Case Description	Pre-conditions	Test Steps	Test data	Expected Results	Actual Result	Test Result
DF - 1	Validate Date Field	Checking the Date of check in is greater than present date or not	Access to Internet and a browser	Check by entering a valid date in the date picker field	-	Only dates Greater than present date should be able to select	Only dates Greater than present date are valid to select	PASS
PN - 1	Validate Phone Number field	Check if the phone number is of particular format or not, and it's length also	Access to Internet and a browser	Check by entering a valid Phone number in the date picker field	Valid formats of the Phone numbers across the world	Only phone numbers of valid format should be accepted	Only phone numbers of valid format are accepted	PASS
BR - 1	Validating The back to reservation button	On pressing the button Back to reservation if the page goes to room type or not	Access to Internet and a browser	Check by pressing the back to reservation field after a room reservation	-	On pressing back to reservation, page should redirect to Room types page	On pressing back to reservation, page is redirecting to Room types page	PASS
AD - 1	Valid Admin login	On entering valid username and password admin should be able to login	Access to Internet and a browser	Check by entering valid admin username and password	Admin username and password table	On login admin should be able to see booking pending, checked ins, checked outs and past details	On login admin is be able to see booking pending, checked ins, checked outs and past details	PASS

AD-2	Check in and room number and number of rooms entry validation	In pending list on pressing check in button room number and number of days of reservation fields should appear	Access to Internet and a browser	In pending list after checking all customer details and pressing check in button all the details should be added to database and room number and number of days of reservation fields should appear	Available room numbers	Should be able to select one of the rooms from available rooms and a field to add number of days	We were able to select one of the rooms from available rooms and a field to add number of days	PASS
AD - 3	Check out validation	In check in list on clicking checkout the customer details should appear in checked out list	Access to Internet and a browser	In check in list on clicking checkout the customer details should be added to database and all the details should appear in checked out list	-	Check in and check out time should be added to database	Check in and check out time are added to database	PASS

# SCREEN SHOTS OF FRONT END


**USER Side :**

Type of rooms :

Conference-Room-Booking


[Home](#) | [About us](#) | [Contact us](#) | [Gallery](#) | [Dine and Lounge](#) | [Make a reservation](#) | [Rules and Regulation](#)

### MAKE A RESERVATION



**Standard**  
Price: Php. 2000.00

Reserve



**Superior**  
Price: Php. 2400.00


Reserve

User details entry :

Conference-Room-Booking

[Home](#) | [About us](#) | [Contact us](#) | [Gallery](#) | [Dine and Lounge](#) | [Make a reservation](#) | [Rules and Regulation](#)

### MAKE A RESERVATION



**Standard**  
Price: Php. 2000.00

Firstname

Middlename

Lastname

Address

Contact No

Check in

## ADMIN Side :

### Pending check ins :

Conference-Room-Booking

Administrator

[Home](#) [Accounts](#) [Reservation](#) [Room](#)

Reservations

Check Ins

Check Out

10 records per page

Search:

Name	Contact No	Room Type	Reserved Date	Status	Action
sak pay	1234567890	Standard	Dec 02, 2022	Pending	<div><div>Check In</div><div>Check Out</div></div>

Showing 1 to 1 of 1 entries

Previous

1

Next

### Entering Room number and number of days :

Conference-Room-Booking

Administrator

[Home](#) [Accounts](#) [Reservation](#) [Room](#)

Fill up form:

Firstname

Middlename

Lastname

sak

sak

pay

Room Type

Room No

Days

Standard

123

1

Submit

Check in :

Conference-Room-Booking

Administrator

HomeAccountsReservationRoom

PendingCheck InCheck Out

10 records per pageSearch

Name	Room Type	Room no	Check In	Days	Check Out	Status	Bill	Action
san py	Standard	123	Dec 06, 2022 @ 12:00 am	1	Dec 06, 2022	Check In	Php 2000.00	Check Out

Showing 1 to 1 of 1 entries

Previous1Next

Check out :

Conference-Room-Booking

Administrator

HomeAccountsReservationRoom

PendingCheck InCheck Out

10 records per pageSearch

Name	Room Type	Room no	Check In	Days	Check Out	Status	Bill	
san py	Standard	123	Dec 06, 2022 @ 12:00 am	1	Dec 06, 2022 @ 12:00 AM	Check Out	Php 2000.00	Paid
san dgh	Super Deluxe	2	Dec 01, 2022 @ 02:10 pm	3	Dec 04, 2022 @ 02:10 PM	Check Out	Php 5400.00	Paid
Samuel payagwalar	Jr Suite	1	Nov 29, 2022 @ 08:24 pm	3	Dec 02, 2022 @ 08:24 PM	Check Out	Php 11800.00	Paid

Showing 1 to 3 of 3 entries

Previous1Next

# Details of room type :

Conference-Room-Booking

Administrator






[Home](#) [Accounts](#) [Reservation](#) [Room](#)

Transaction / Rooms

+ Add Room

10 records per page

Search:

Room Type	Price	Photo	Action
Executive Suite	4000		<div><div>✎ Edit</div><div>✖ Delete</div></div>
Jr. Suite	3600		<div><div>✎ Edit</div><div>✖ Delete</div></div>
Standard	2600		<div><div>✎ Edit</div><div>✖ Delete</div></div>
Super Deluxe	2800		<div><div>✎ Edit</div><div>✖ Delete</div></div>
Superior	2400		<div><div>✎ Edit</div><div>✖ Delete</div></div>

showing 1 to 5 of 5 entries

Previous1Next