

HALL MANAGEMENT CENTER

Software Engineering | B.Tech 3rd Year, 1st Semester

Department of Computer Science and Engineering

Submitted by

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*REQUIREMENT SPECIFICATION
DOCUMENT(SRS) for
Hall Management Center(HMC)*

Team-12:INNOVATORS

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1.Introduction:

This document has the requirements of Hall Management Center. The HMC tool is used by Universities. By using the HMC Tool, Universities provide a better facilities for students for their accommodation.

2.Purpose:

The purpose of this document is to gather the requirements that are needed for implementing the Hall Management Center(HMC). It also focuses on various aspects such as scope and visibility of different users ,overview on performance of different users.

The purpose of HMC is to provide efficiency to the universities in maintaining student accommodation and maintain the data of the particular student user up to the date. It provides an online visibility of the status of an user.

3.Intended Audience:

The intended audience will be Hall management administration who want to accommodate students.

3.1.Stakeholders:

Client : Hall Administrator (Warden)

Users : individuals who use the HMC

(Student , Warden , Mess Manager , Chairman , Staff Manager)

4.Product Vision

4.1 Vision Statement:

The product vision is to develop a HMC Tool, which is user friendly and easily accessible. This HMC Tool helps to manage student accommodations.

5.Techologies:

Hardware: Desktop Computers,Barcode Scanners,Printers

Software:

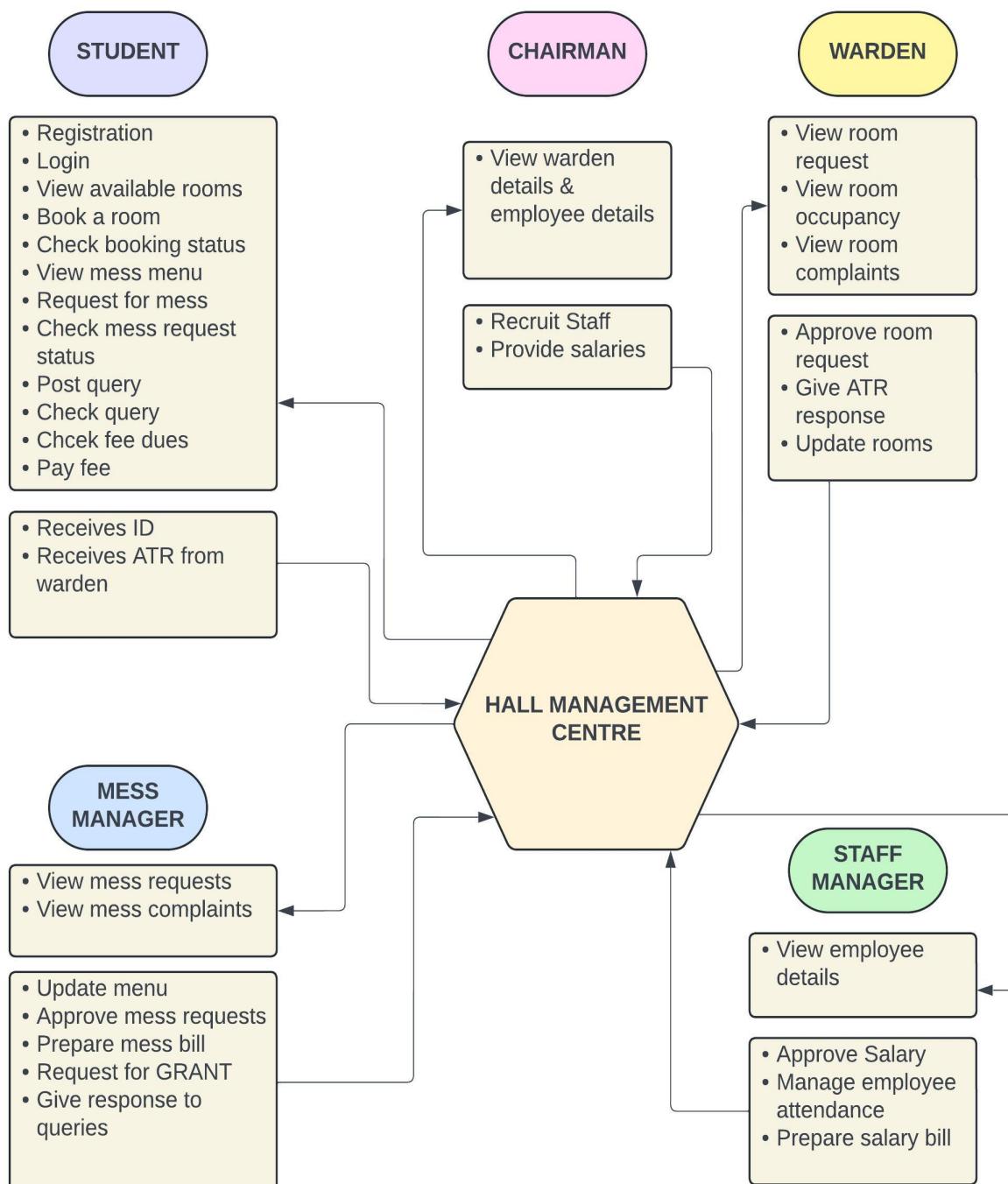
Frontend : HTML , CSS , JAVSCRIPT

Backend : XAMPP , MYSQL , PHP

6.System in Context:

HMC Tool is a multi user system which provides Information about student accommodation. It gets student details from the administration and also accepts queries and provide solutions. It aims to provide basic visibility to give a clarity to the personnel. It provides status of the halls to users, support personnel and administrator. It allows administrator to change the status of current halls.

7.CONTEXT-DIAGRAM:



8.Functional Requirements:

1. System (Hall Management Center) supports five types of people.
 - a. **Student:** Register with the basic details,Registers for rooms and halls,register for mess with selected menu,Raise complaints
 - b. **Warden:** validates room requests from student and receives room request,update room and hall details,receives complaints from student and post his ATR to each complaint,views accounts and fees.
 - c. **Mess Manager:** prepare food menu with prices,receives the mess details from student,receives and respond to the complaints from student,have visibility on administration about mess fee.
 - d. **Chairman:** Have visibility on wardens,Recruitment of staff,Distribution of funds.
 - e. **Staff Manager:** Have visibility on all other users,issues salary cheques to staff,maintain attendance details of staff,managing the staff details.
2. Student Registers for the functionalities of Hall with the following details:
 - a. Provides his/her personal details(name,phone number,email,photo,address)
 - b. Register for room with selected type of room(sharing/single),amenities(reading rooms, play rooms,TV rooms etc).
 - c. Register for mess with selected mess menu(veg/non-veg) and prices according to them.
3. Warden gets room request from student and updates the room and hall details as per student requirement. He updates the room & amenities fee

which is added to the fee column of administrator page as accommodation fee.

4. Mess manager gets mess registration request from student and updates the mess menu of that personnel. He updates the mess fee details of a personnel which is added to the fee column of administrator page as mess fee.
5. Chairman has visibility on all other users, and has manages the recruitment of staff and distribution of funds &grant among different halls.
6. Staff manager has visibility on all other users ,validates & updates the details of staff,provides monthly salary cheques to the staff.

9.Non-Functional Requirements

9.1.Performance

- The system should process room booking and viewings within seconds.
- The system should handle up to many concurrent users without performance degradation.

9.1.2.Reliability

- The system should have an uptime of 99.9%.
- The system should perform daily backups to prevent data loss.

9.1.3.Usability

- The UI should be intuitive and easy to navigate for Hall management staff and members.
- Training material should be provided for first-time users.

9.1.4.Security

- The system should have role-based access control.
- The system should encrypt sensitive member and hall information.

9.1.5.Maintainability

- The system code should be modular and follow coding standards to ensure maintainability.
- The system should allow easy updates to the book and member databases.

10.Conclusion:

SRS document gives information about functional and non-functional requirements of the Hall Management System. It can be further reviewed and update as per requirement and system performance.

USER REQUIREMENT DOCUMENT(URD)

Hall Management Center(HMC):

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7.System-Wide Requirements(Received):**7.1Actors:**

The system interacts with four kinds of users. Each user has own functions to access with system .The functionalities of users are dependent on each other.

- Student
- Mess Manager
- Warden
- Staff Manager
- chairman

7.1.1.Student:

-Register into HMC and views the details like rooms,mess menu,fee dues

7.1.2.Mess Manager:

-Manages mess contract,updates mess menu,review queries,respond to the queries,prepare mess bill,requests for grant

7.1.3.Warden:

-Manages rooms requests and allotment,update room occupancy,prepare rent bill for the student,reviews complaints

7.1.4.Staff Manager:

-Manages the salary posting for employees,attendance of employees,new employee recruitments

7.1.5.Chairman:

-views the details of the employess,warden and post salaries,accept the requests for grant

7.2.Events:**7.2.1.For Student:****1.Register & Login:**

-Registers into HMC account and logins whenever needed.

2.View Available room:

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-access and view the room occupancy and available rooms.

3.Book A Room:

-books the unoccupied room

4.Check Boking Status:

-checks whether the room is booked or not

5.View Mess Menu,Check Requests

-views the mess menu and checks mess requests

6.Post Query and Check Status

-posts queries about mess and halls

7.Check Fees,Pay Fees

-check the pay dues and fees and completes the dues

8.Recieve ID and ATR

-Recieves ID after registration and Complaint ATR

7.2.2.For Mess Manager:**1.View Mess Requests&Complaints:**

-Views the mess requests and complaints posted by student

2.Update Menu:

-Updates the mess menu as per schedule

3.Approve Mess Requests:

-Approves the mess requests from the Students

4.Prepare Mess Bill:

-Prepares pay bill for each individual student

5.Request For Grant:

-Post his Requests about annual grant

6.Post Response for Queries:

-Post Responses for the queries

7.2.3.For Staff Manager:

1.View Employee Details:

-views the employee details like warden and mess manager

2.Approve Salary:

-Approves Salary for the employees

3.Manage Employee Attendance:

-manages Employee attendance on daily basis

4.Prepare Salary Bill:

-Prepares Salary Bill based on overall salary approves

7.2.4.For Warden:

1.View Room Request:

-Views the room request from student

2.View Room occupancy&Complaints:

-Views the room occupancy and reviews the complaints

3.Approve Room Request & Give ATR response:

-Approve the room request from the student and provides response ATR for complaints

4.Update Room details:

-Update the room details based on occupancy

7.2.5.For ChairMan:

1.View Warden Details:

-View the Warden Details

2.View Employee Details:

-Views the Employee Details

3.Recruit Staff:

-Recurit the new Staff

4.Post Salaries :

-Post Salary for the employees

8.System Characteristics:

	Actor	Action	Object	Frequency	Arrival Pattern	Response
1.	Student	Register & login	Account	Once per user	User registers a single account & login when needed	Confirmation page for account creation and login page to login.
2.	Student	View available rooms	HMC database	Moderate	As needed,to find suitable rooms	presented with a list of available rooms and their details.
3.	Student	Book a room	Booking	Moderate	Once per Semester or as needed	Room is booked for the specified period
4.	Student	Check booking status	HMC Database	Moderate	As needed,to track booking status	presented with the current status of their booking.
5.	Student	View mess menu	Menu	Frequent	As needed ,to plan meals	presented with the mess menu and can view or make requests.
6.	Student	Post query & check status	Queries	Moderate	As needed,to report issues or request assistance	submits a query and can track its status.
7.	Student	Check dues & Pay dues	Dues	Moderate	When the due time arrives	outstanding dues are displayed,payment record is updated.
8.	Student	Recieve ID and ATR	ID and ATR	Low	Only when ID is allotted and ATR is Recieved	ID and ATR are available for view,records the retrieval of the documents by the student.

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9.	Mess Manager	View Mess Requests & Complaints	Requests& Complaints	High	Needs to look into it to find neww requests and complaints	viewed the pending mess requests and complaints.
10.	Mess Manager	Update Menu	Menu	High	Mess menu need to be updated based on requests	menu is updated.
11.	Mess Manager	Approve Mess Requests	Requests	High	Always need to check and approve mess requests	either approved or rejected
12.	Mess Manager	Prepare Mess Bill	Bill	Moderate	Only required when the time for mess billing arrives	The monthly mess bill is generated.
13.	Mess Manager	Request for Grant	Grants	Moderate	Requesting grant is only possible during some durations	posts a request to the chairman about grant.
14.	Mess Manager	Post response for Queries	Response	Moderate	Only when the student post queries	reponses are generated.
15.	Staff Manager	View Employee Details	Employee	Moderate	As needed,when the new staff joins or salary has to be provided	viewed the desired employee details.
16.	Staff Manager	Approve Salary	Salary	Monthly	Typically at the end of each period	salary has been approved for payment.
17.	Staff Manager	Manage Employee Attendance	Attendance	Daily	Daily,especially during peak attendance tracking periods	Employee attendance records have been updated.
18.	Staff Manager	Prepare Salary Bill	Bill	Monthly	Monthly,typically at the end of each pay period	The salary bill is generated and ready for review.
19.	Warden	View Room requests	Room	High	As needed,because student room preferences may change frequently	viewed the room request details.
20.	Warden	View Room Occupancy & Compliants	Room Database	Moderate	Only starting of the semester or durations	viewed the room occupancy and complaint details

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21.	Warden	Approve Room Request & ATR	Requestss	High	As needed,when the students post room requests and when he needed to request for ATR	approved or rejected, and the student has received an ATR response.
22.	Warden	Update room details	Room	Low	Less frequent,Only when a new room is allotted or vacated	The room details have been updated
23.	Chairman	View Warden Details	Warden	Low	Less frequent,only when grants need to be provided	viewed the warden's details.
24.	Chairman	View Employee Details	Employee	Low	Less frequent ,only when salaries are to be granted	viewed the employee's details.
25.	Chairman	Recruit Staff	Staff	Low	Very less,only in the starting of the duration	New staff members have been recruited.
26.	Chairman	Post Salary	Salary	Moderate	Mostly monthly or according due pay period	Salaries have been provided to the staff members

9.Functional Requirements:**9.1.Use case Overreview:**

	Use case ID	Use Case Name	Priority	Stability	Verifiability
1.	UC-HMC-R&L	Register & Login	High	Stable	Verifiable
2.	UC-HMC-VAR	View Available Room	High	Stable	Verifiable
3.	UC-HMC-BAR	Book A Room	High	Stable	Verifiable
4.	UC-HMC-CBS	Check Booking Status	High	Stable	Verifiable

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5.	UC-HMC-VMR,CMR	View Mess Menu,Check Requests	High	Stable	Verifiable
6.	UC-HMC-PQ &CQS	Post Query and Check Status	High	Stable	Verifiable
7.	UC-HMC-CF,PF	Check Fees,Pay Fees	High	Stable	Verifiable
8.	UC-HMC-RID&ATR	Recieve ID and ATR	High	Stable	Verifiable
9.	UC-HMC-VMR&C	View Mess Requests&Complaints	High	Stable	Verifiable
10.	UC-HMC-UM	Update Menu	High	Stable	Verifiable
11.	UC-HMC-AMR	Approve Mess Requests	High	Stable	Verifiable
12.	UC-HMC-PMB	Prepare Mess Bill	High	Stable	Verifiable
13.	UC-HMC-RG	Request For Grant	High	Stable	Verifiable
14.	UC-HMC-PRQ	Post Response for Queries	High	Stable	Verifiable
15.	UC-HMC-VED	View Employee Details	High	Stable	Verifiable
16.	UC-HMC-AS	Approve Salary	High	Stable	Verifiable
17.	UC-HMC-MEA	Manage Employee Attendance	High	Stable	Verifiable
18.	UC-HMC-PSB	Prepare Salary Bill	High	Stable	Verifiable
19.	UC-HMC-VRR	View Room Request	High	Stable	Verifiable

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20.	UC-HMC-VRO&C	View Room Occupancy&Complaints	High	Stable	Verifiable
21.	UC-HMC-ARR&GAR	Approve Room Request&Give ATR Response	High	Stable	Verifiable
22.	UC-HMC-URD	Update Room Details	High	Stable	Verifiable
23.	UC-HMC-VWD	View Warden Details	High	Stable	Verifiable
24.	UC-HMC-VED	View Employee Details	High	Stable	Verifiable
25.	UC-HMC-RS	Recruit Staff	High	Stable	Verifiable
26.	UC-HMC-PS	Post Salaries	High	Stable	Verifiable

10.Use Case Diagram:



11.USE CASE SPECIFICATIONS:

1.UC-HMC-R&L:Register and Login

Use-Case ID : UC-HMC-R&L	Use-case Name : Register & Login
Description	The student registers for an account with the Hall Management System and logs in to access available features.
Pre-Conditions	Student does not have an existing account.
Post-Conditions	Student successfully creates an account and logs in.
Frequency of Use	Once per user.
Main Success Scenario (or basic flow)	Student provides personal information for registration. The system verifies the information and creates an account. Student logs in using their credentials.
Extensions (or alternate flows)	If information is incorrect or incomplete, the system prompts the student to correct it. If the login attempt fails due to incorrect credentials, the system displays an error message.
Frequency of Occurrence	Once per user initially, followed by frequent logins.

2.UC-HMC-VAR:View Available Rooms

Use-Case ID : UC-HMC-VAR	Use-case Name : View Available Room
Description	The student views the list of available rooms in the hall.
Pre-Conditions	Student is logged in.
Post-Conditions	Student is presented with a list of available rooms and their details.

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Frequency of Use	As needed, to find suitable rooms.
Main Success Scenario	Student navigates to the "Rooms" section. The system displays a list of available rooms with details like room type, capacity, and amenities.
Extensions	No alternate flow.
Frequency of Occurrence	Frequent, especially during the room booking process.

3.UC-HMC-BAR:Book A Room

Use-Case ID : UC-HMC-BAR	Use-case Name : Book A Room
Description	The student books a room for a specific period.
Pre-Conditions	Student is logged in and a room is available.
Post-Conditions	Room is booked for the specified period.
Frequency of Use	Once per semester or as needed.
Main Success Scenario (or basic flow)	Student selects a room from the available list. Student chooses a start date and end date for the booking. The system verifies availability and confirms the booking. Student receives a booking confirmation.
Extensions (or alternate flows)	If the room is not available, the system displays an error message. If the booking details are invalid, the system prompts for correction.
Frequency of Occurrence	Once per semester or as needed.

4.UC-HMC-CBS:Check Booking Status

Use-Case ID : UC-HMC-CBS	Use-case Name : Check Booking Status
Description	The student checks the status of their room booking.
Pre-Conditions	Student is logged in and has a booking.
Post-Conditions	Student is presented with the current status of their booking.

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Frequency of Use	As needed, to track booking status.
Main Success Scenario (or basic flow)	Student navigates to the "Bookings" section. The system displays the current status of the booking (e.g., confirmed, pending, cancelled).
Extensions (or alternate flows)	No alternate flow.
Frequency of Occurrence	Frequent, especially after booking a room.

5.UC-HMC-VMR,CMR:View Mess Menu,Check Mess Requests

Use-Case ID : UC-HMC-VMR,CMR	Use-case Name : View Mess Menu, Check Mess Requests
Description	The student views the mess menu and checks or makes mess requests
Pre-Conditions	Student is logged in.
Post-Conditions	Student is presented with the mess menu and can view or make requests.
Frequency of Use	As needed, to plan meals.
Main Success Scenario (or basic flow)	Student navigates to the "Mess" section. The system displays the current mess menu. Student can view or make requests for specific dishes or dietary needs.
Extensions (or alternate flows)	No alternate flow.
Frequency of Occurrence	Frequent, especially during meal planning.

6.UC-HMC-PQ & CQS : Post Query and Check Query Status

Use-Case ID : UC-HMC-PQ&CQS	Use-case Name : Post Query and Check Query Status
Description	Post Query and Check Query Status
Pre-Conditions	Student is logged in.
Post-Conditions	Student submits a query and can track its status.
Frequency of Use	As needed, to report issues or request assistance.
Main Success Scenario	Student navigates to the "Queries" section.

(or basic flow)	Student submits a query or request. The system assigns a query ID and displays the query status. Student can track the query status
Extensions (or alternate flows)	If the query is invalid or incomplete, the system prompts for correction. If the query is resolved, the system updates.
Frequency of Occurrence	As needed, to report issues or request assistance.

7.UC-HMC-CF,PF:CheckFees , Pay Fees

Use-Case ID : UC-HMC-CF,PF	Use-case Name : Check Fees, Pay Fees
Description	This use case allows a student to check their outstanding dues and pay them through the system.
Pre-Conditions	The student is logged into the system. The system has an active internet connection.
Post-Conditions	The student's outstanding dues are displayed. The student's payment record is updated.
Frequency of Use	Moderate
Main Success Scenario (or basic flow)	The student selects the "Check Fees" option. The system displays the student's outstanding dues. The student selects the "Pay Fees" option. The system prompts the student to choose their payment method. The student enters their payment details and confirms the payment. The system processes the payment and updates the student's fee record. The system displays a confirmation message.
Extensions (or alternate flows)	Payment Error: If there is an error processing the payment, the system displays an error message and prompts the student to try again. Insufficient Funds: If the student's payment account has insufficient funds, the system displays an error message and prompts the student to use a different payment method.
Frequency of Occurrence	Moderately high

8.UC-HMC-RID&ATR:Recieve ID and ATR:

Use-Case ID : UC-HMC-RID&ATR	Use-case Name : Receive ID and ATR
Description	This use case allows a student to receive their student ID and ATR (Attendance Tracking Record) digitally.
Pre-Conditions	The student is logged into the system. The student's profile has been created.
Post-Conditions	The student's ID and ATR are available for download/view. The system records the retrieval of the documents by the student.
Frequency of Use	Low
Main Success Scenario (or basic flow)	The student selects the "Receive ID and ATR" option. The system retrieves the student's ID and ATR from the database. The system displays the student's ID and ATR in a printable format. The student has the option to download or print their ID and ATR.
Extensions (or alternate flows)	Document Retrieval Error: If there is an error retrieving the documents, the system displays an error message and prompts the student to try again.
Frequency of Occurrence	Low

9.UC-HMC-VMR&C:View Mess Requests & Complaints

Use-Case ID : UC-HMC-VMR&C	Use-case Name : View Mess Requests & Complaints
Description	The Mess Manager can view all pending mess requests and complaints from students.
Pre-Conditions	The Mess Manager is logged in.
Post-Conditions	The Mess Manager has viewed the pending mess requests and complaints.
Frequency of Use	High
Main Success Scenario (or basic flow)	The Mess Manager selects the "View Mess Requests & Complaints" option from the menu. The system displays a list of all pending mess

	requests and complaints. The Mess Manager reviews the requests and complaints.
Extensions (or alternate flows)	If there are no pending requests or complaints, the system displays a message indicating this.
Frequency of Occurrence	High

10.UC-HMC-UM:Update Menu

Use-Case ID : UC-HMC-UM	Use-case Name : Update Menu
Description	The Mess Manager updates the daily mess menu based on availability and feedback.
Pre-Conditions	The Mess Manager is logged in.
Post-Conditions	The mess menu is updated.
Frequency of Use	High
Main Success Scenario (or basic flow)	The Mess Manager selects the "Update Menu" option from the menu. The system displays the current mess menu. The Mess Manager makes any necessary changes to the menu. The Mess Manager saves the changes.
Extensions (or alternate flows)	If the Mess Manager does not make any changes, the system displays a confirmation message.
Frequency of Occurrence	High

11.UC-HMC-AMR:Approve Mess Requests

Use-Case ID : UC-HMC-AMR	Use-case Name : Approve Mess Requests
Description	The Mess Manager approves or rejects mess requests from students.
Pre-Conditions	The Mess Manager is logged in.
Post-Conditions	The mess request is either approved or rejected.
Frequency of Use	High
Main Success Scenario	The Mess Manager selects the "Approve Mess

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(or basic flow)	Requests" option from the menu. The system displays a list of pending mess requests. The Mess Manager reviews each request and either approves or rejects it.
Extensions (or alternate flows)	If the Mess Manager needs further information before approving or rejecting a request, they can contact the student for clarification.
Frequency of Occurrence	Moderate

12.UC-HMC-PMB:Prepare Mess Bill

Use-Case ID : UC-HMC-PMB	Use-case Name : Prepare Mess Bill
Description	The Mess Manager prepares the monthly bill for mess charges.
Pre-Conditions	The Mess Manager is logged in.
Post-Conditions	The monthly mess bill is generated.
Frequency of Use	Moderate
Main Success Scenario (or basic flow)	The Mess Manager selects the " Prepare Mess Bill" option from the menu. The system generates the monthly mess bill based on student usage. The Mess Manager reviews the bill for accuracy.
Extensions (or alternate flows)	If there are any errors in the bill, the Mess Manager can correct them and regenerate the bill.
Frequency of Occurrence	Moderate

13.UC-HMC-RG:Request For Grant

Use-Case ID : UC-HMC-RG	Use-case Name : Request For Grant
Description	The Mess Manager Requests the Annual grant from the chairman.
Pre-Conditions	The Mess Manager is logged in.
Post-Conditions	The mess manager posts a request to the chairman about grant.
Frequency of Use	Moderate

Main Success Scenario (or basic flow)	The Mess Manager selects the "Request for grant" option from the menu. The system displays the current status of requesting status. The Mess Manager Requests for grant if the request portal is ready to accept the request.
Extensions (or alternate flows)	If the Request is accepted by the chairman the system gives notification to mess manager.
Frequency of Occurrence	Moderate

14.UC-HMC-PRQ:Post Response for Queries

Use-Case ID : UC-HMC-PRQ	Use-case Name : Response For Queries
Description	The Mess Manager Views the Queries and post his responses to each and every query.
Pre-Conditions	The Mess Manager is logged in.
Post-Conditions	The mess manager reponses are generated.
Frequency of Use	Moderate
Main Success Scenario (or basic flow)	The Mess Manager selects the "View Queries" option from the menu. The system generates the queries based on student problems and questions. The Mess Manager reviews the queries and post his responses to it.
Extensions (or alternate flows)	If the Responses are not satisfied with the problem mess manager is again notified with another query.
Frequency of Occurrence	Moderate

15.UC-HMC-VED:View Employee Details

Use-Case ID : UC-HMC-VED	Use-case Name : View Employee Details
Description	The Staff Manager can view detailed information about each employee in the hall. This includes their name, contact information, role, and other relevant details.
Pre-Conditions	The Staff Manager is logged into the system and has the necessary permissions to access employee data.
Post-Conditions	The Staff Manager has viewed the desired

	employee details.
Frequency of Use	Moderate
Main Success Scenario (or basic flow)	<p>The Staff Manager logs into the system.</p> <p>The Staff Manager navigates to the "Employee" section.</p> <p>The Staff Manager selects an employee from the list.</p> <p>The system displays the employee's details.</p>
Extensions (or alternate flows)	The Staff Manager enters incorrect credentials. The system displays an error message.
Frequency of Occurrence	High

16.UC-HMC-AS:Approve Salary

Use-Case ID : UC-HMC-AS	Use-case Name : Approve Salary
Description	The Staff Manager approves the calculated salary for an employee.
Pre-Conditions	The Staff Manager is logged in. The employee's salary has been calculated and submitted for approval.
Post-Conditions	The employee's salary has been approved for payment.
Frequency of Use	Monthly, typically at the end of each pay period.
Main Success Scenario (or basic flow)	<p>The Staff Manager selects "Approve Salary" from the system menu.</p> <ol style="list-style-type: none"> 1. The system displays a list of pending salary approvals. 2. The Staff Manager selects the employee whose salary needs approval. 3. The system displays the employee's salary details, including the calculated amount and any deductions. 4. The Staff Manager reviews the information and clicks "Approve Salary" if the details are correct. 5. The system approves the salary and updates

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	the employee's payroll record.
Extensions (or alternate flows)	If the Staff Manager identifies an error in the calculated salary, they can click "Reject Salary" and provide a reason for rejection. The rejected salary is sent back to the payroll department for correction.
Frequency of Occurrence	Moderate

17.UC-HMC-MEA:Manage Employee Attendance

Use-Case ID : UC-HMC-MEA	Use-case Name : Manage Employee Attendance
Description	The Staff Manager can track and manage the attendance of employees, including recording absences, leave requests, and other attendance-related events.
Pre-Conditions	The Staff Manager is logged into the system and has the necessary permissions to manage employee attendance.
Post-Conditions	Employee attendance records have been updated.
Frequency of Use	Daily, especially during peak attendance tracking periods.
Main Success Scenario (or basic flow)	The Staff Manager selects "Manage Employee Attendance" from the system menu. The system displays a list of employees and their attendance records. The Staff Manager selects an employee to update their attendance record. The system displays the employee's attendance details, including dates, hours worked, and absences. The Staff Manager updates the attendance record as needed, including marking absences or approving leave requests.
Extensions (or alternate flows)	The Staff Manager encounters a discrepancy in the attendance records. The Staff Manager investigates and resolves the issue.

Frequency of Occurrence	High
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18.UC-HMC-PSB:Prepare Salary Bill

Use-Case ID : UC-HMC-PSB	Use-case Name : Prepare Salary Bill
Description	The Staff Manager prepares the salary bill for a specific pay period, including calculating salaries, deductions, and generating reports.
Pre-Conditions	The Staff Manager is logged in. Employee salary data is up-to-date. The payroll system is configured.
Post-Conditions	The salary bill is generated and ready for review.
Frequency of Use	Monthly, typically at the end of each pay period.
Main Success Scenario (or basic flow)	<p>The Staff Manager selects "Prepare Salary Bill" from the system menu.</p> <p>The system prompts the Staff Manager to select the pay period and employee group.</p> <p>The Staff Manager enters the requested information.</p> <p>The system calculates salaries, deductions, and generates the salary bill.</p> <p>The Staff Manager reviews the salary bill and makes any necessary adjustments.</p>
Extensions (or alternate flows)	If the Staff Manager identifies errors in the salary bill, they can correct the errors and re-generate the bill.
Frequency of Occurrence	Medium

19.UC-HMC-VRR:View Room Request

Use-Case ID : UC-HMC-VRR	Use-case Name : View Room Request
Description	The Warden views requests from students to book a room.
Pre-Conditions	The Warden has logged in to the system.
Post-Conditions	The Warden has viewed the room request details.
Frequency of Use	High
Main Success Scenario	The Warden selects the "View Room Request"

(or basic flow)	option. The system displays a list of pending room requests. The Warden selects a specific request to view details.
Extensions (or alternate flows)	If there are no pending room requests, the system displays a message indicating this.
Frequency of Occurrence	High

20.UC-HMC-VRO&C:View Room Occupancy &Complaints

Use-Case ID : UC-HMC-VRO&C	Use-case Name : View Room Occupancy & Complaints
Description	The Warden views the occupancy status of rooms and any complaints related to them.
Pre-Conditions	The Warden has logged in to the system.
Post-Conditions	The Warden has viewed the room occupancy and complaint details
Frequency of Use	Moderate
Main Success Scenario (or basic flow)	The Warden selects the "View Room Occupancy & Complaints" option. The system displays a list of rooms and their occupancy status. The Warden can click on a specific room to view complaints related to it.
Extensions (or alternate flows)	If there are no complaints, the system displays a message indicating this.
Frequency of Occurrence	Moderate

21.UC-HMC-ARR&GAR:Approve Room Request&Give ATR Response

Use-Case ID : UC-HMC- ARR&GAR	Use-case Name : Approve Room Request, Give ATR Response
Description	The Warden approves room requests and provides an Automated Teller Response (ATR) response to the student.
Pre-Conditions	The Warden has logged in to the system and is reviewing a room request.

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Post-Conditions	The room request has been approved or rejected, and the student has received an ATR response.	
Frequency of Use	High	
Main Success Scenario (or basic flow)	The Warden selects the "Approve Room Request" option. The system displays the room request details. The Warden approves or rejects the request. The system generates and sends an ATR response to the student.	
Extensions (or alternate flows)	If the Warden needs to request additional information from the student, they can send a message through the system.	
Frequency of Occurrence	High	

22.UC-HMC-URD:Update Room Details

Use-Case ID : UC-HMC-URD	Use-case Name : Update Room Details
Description	The Warden updates room details, such as availability.
Pre-Conditions	The Warden has logged in to the system.
Post-Conditions	The room details have been updated.
Frequency of Use	Low
Main Success Scenario (or basic flow)	The Warden selects the "Update Room Details" option. The system displays the current room details. The Warden updates the room details.
Extensions (or alternate flows)	If the Warden attempts to update room details without the necessary permissions, the system displays an error message.
Frequency of Occurrence	Low

23.UC-HMC-VWD:View Warden Details

Use-Case ID : UC-HMC-VWD	Use-case Name : View Warden Details
Description	The chairman views the details of the warden, such as their name, contact information, and responsibilities.
Pre-Conditions	The chairman has logged in to the system.

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Post-Conditions	The chairman has viewed the warden's details.
Frequency of Use	As needed
Main Success Scenario (or basic flow)	The chairman selects the "View Warden Details" option from the menu. The system displays the warden's details.
Extensions (or alternate flows)	If the system is unable to retrieve the warden's details, an error message is displayed.
Frequency of Occurrence	Low

24.UC-HMC-VED:View Employee Details

Use-Case ID : UC-HMC-VED	Use-case Name : View Employee Details
Description	The chairman views the details of the employees, such as their name, contact information, and job role.
Pre-Conditions	The chairman has logged in to the system.
Post-Conditions	The chairman has viewed the employee's details.
Frequency of Use	As needed
Main Success Scenario (or basic flow)	The chairman selects the "View Employee Details" option from the menu. The system displays the employee's details.
Extensions (or alternate flows)	If the system is unable to retrieve the employee's details, an error message is displayed.
Frequency of Occurrence	Low

25.UC-HMC-RS:Recruit Staff

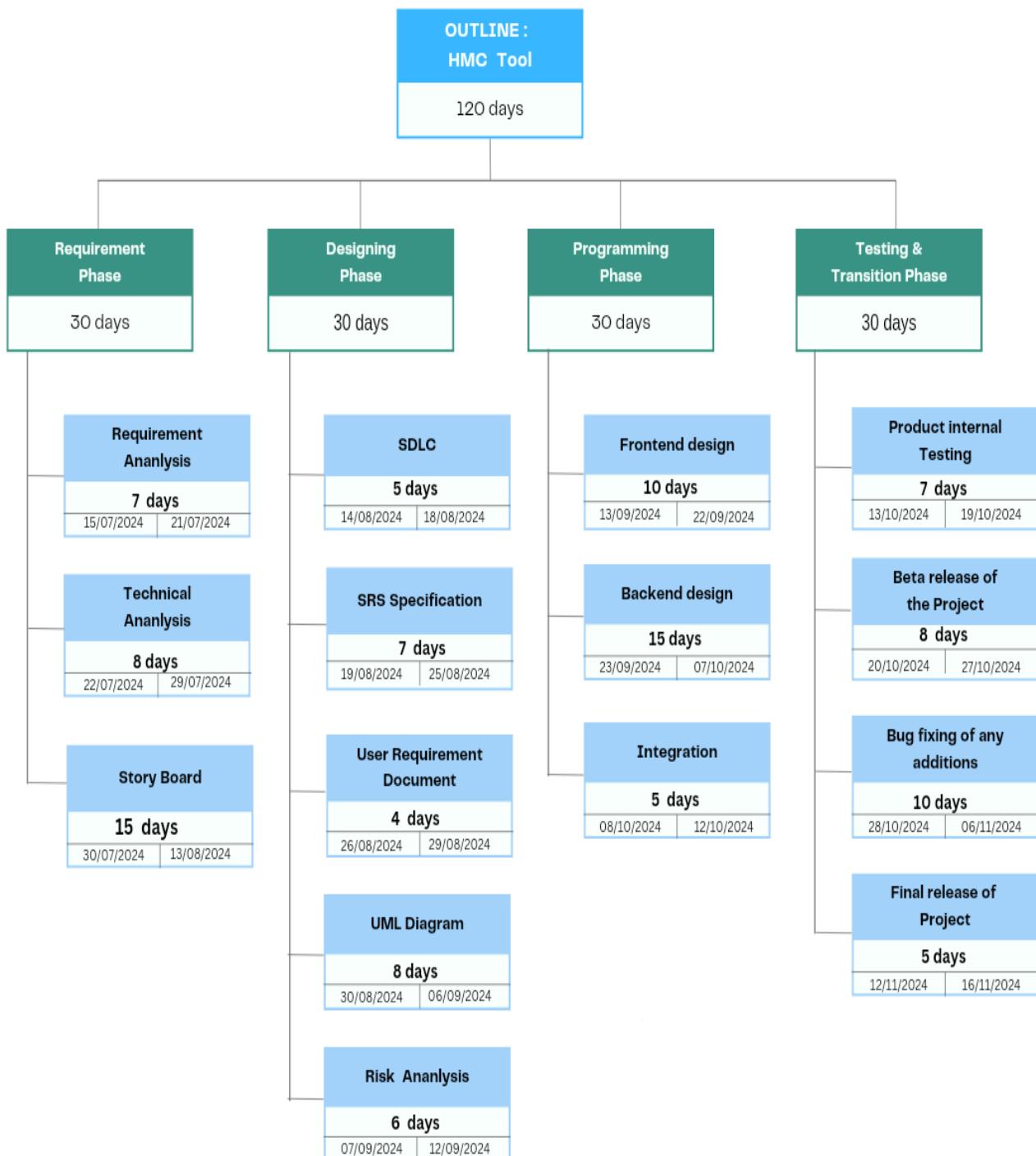
Use-Case ID : UC-HMC-RS	Use-case Name : Recruit Staff
Description	The chairman recruits new staff members for the hall.
Pre-Conditions	The chairman has logged in to the system.
Post-Conditions	New staff members have been recruited.
Frequency of Use	As needed
Main Success Scenario (or basic flow)	The chairman selects the "Recruit Staff" option from the menu. The system displays a form for entering the details of

	the new staff members. The chairman enters the details of the new staff members and submits the form. The system adds the new staff members to the database.
Extensions (or alternate flows)	If the system is unable to add the new staff members to the database, an error message is displayed.
Frequency of Occurrence	Low

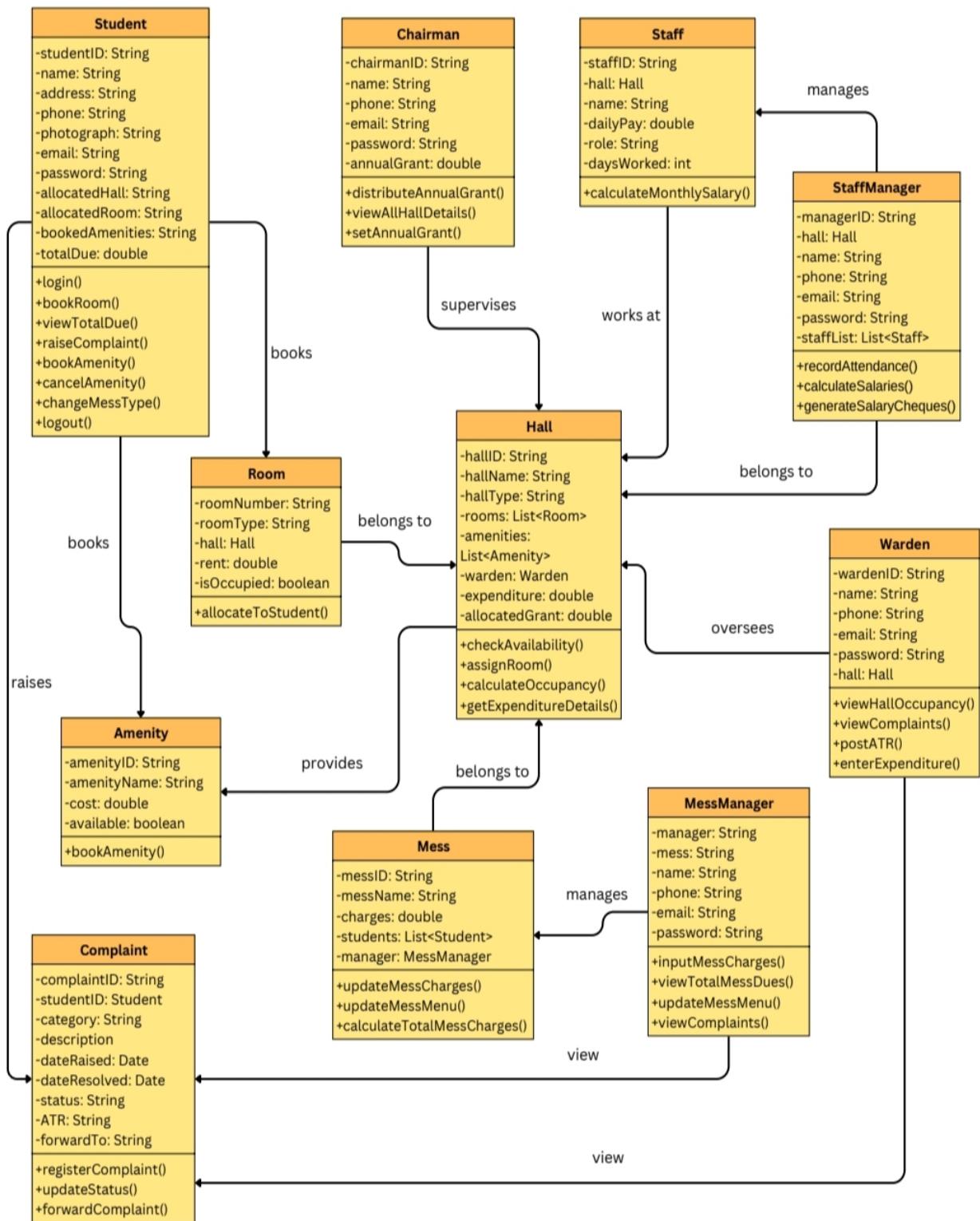
26.UC-HMC-PS:Post Salaries

Use-Case ID : UC-HMC-PS	Use-case Name : Post Salaries
Description	The chairman provides salaries to the staff members.
Pre-Conditions	The chairman has logged in to the system.
Post-Conditions	Salaries have been provided to the staff members.
Frequency of Use	Moderate
Main Success Scenario (or basic flow)	<p>The chairman selects the "Provide Salaries" option from the menu.</p> <p>The system displays a form for entering the salary details.</p> <p>The chairman enters the salary details and submits the form.</p> <p>The system updates the salary details in the database.</p>
Extensions (or alternate flows)	If the system is unable to update the salary details in the database, an error message is displayed.
Frequency of Occurrence	Moderate

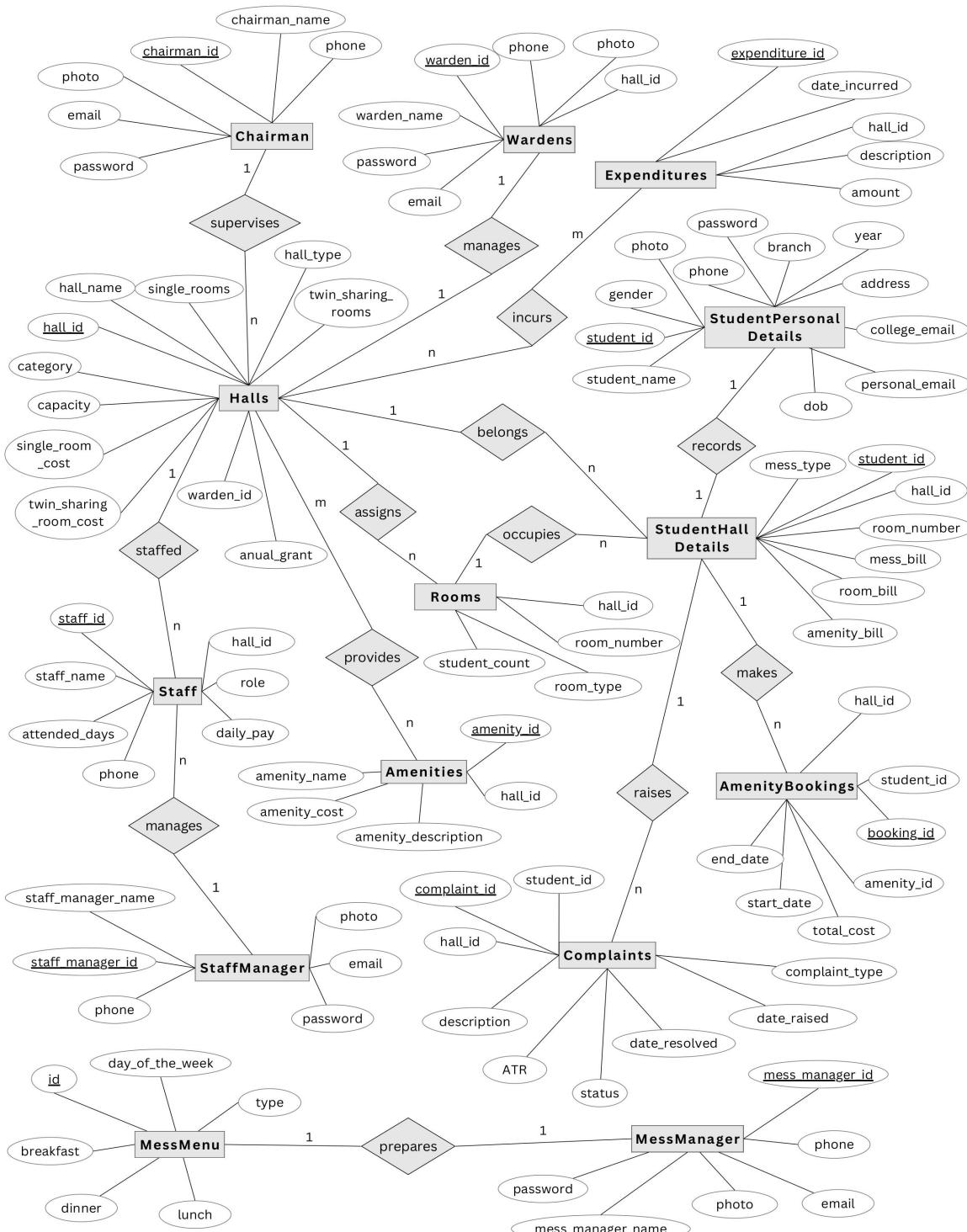
WORK-BREAK DOWN :



CLASS DIAGRAM:



ER DIAGRAM:



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SAMPLE UI's:

Hall Management Center(HMC)

IIT HMC

MESS MANAGER

- [Dashboard](#)
- [Menu](#)
- [Student Details](#)
- [Complaints](#)

[Logout](#)

MESS MANAGER

Mess Number: 1-2-3-4
Contact: 9989768566
Email: mess_manager@gmail.com

[Edit](#)



IIT HMC

MESS MANAGER

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- [Menu](#)
- [Student Details](#)
- [Complaints](#)

[Logout](#)

Mess Menu

Vegetarian Menu

[Edit](#)

Day	Breakfast	Lunch	Dinner
Monday	Upma	Mushroom Rice	Roti
Tuesday	Idli and Vada	Kaju Rice	Indian Special Rice
Wednesday	Dosa	Paneer Rice	Curd Rice
Thursday	Pongal	Dal Rice	Tomato Rice
Friday	Poha	Rasam Rice	Baby Corn Rice
Saturday	Poori	Gobi Rice	Sambar Rice
Sunday	Chapathi	Pulao	Pulihora

Non-Vegetarian Menu

[Edit](#)

Day	Breakfast	Lunch	Dinner
Monday	Upma	Mushroom Rice	Roti
Tuesday	Idli and Vada	Kaju Rice	Indian Special Rice
Wednesday	Dosa	Paneer Rice	Curd Rice
Thursday	Pongal	Dal Rice	Tomato Rice
Friday	Poha	Rasam Rice	Baby Corn Rice
Saturday	Poori	Gobi Rice	Sambar Rice
Sunday	Chapathi	Pulao	Pulihora

Team-12:Innovators SAMPLE UI's:

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IIT HMC
MESS MANAGER

Student ID	Hall ID	Mess Type	Mess Bill
ST220001	1	Vegetarian	₹ 2100
ST220002	4	Non Vegetarian	₹ 3100
ST220003	2	Vegetarian	₹ 2100
ST220004	3	Non Vegetarian	₹ 3100
ST220005	1	Non Vegetarian	₹ 3100
ST220008	1	Vegetarian	₹ 2100
ST220009	3	Vegetarian	₹ 2100
ST220010	1	Non Vegetarian	₹ 3100
ST220011	3	Non Vegetarian	₹ 3100
ST220012	1	Vegetarian	₹ 2100
ST220013	4	Non Vegetarian	₹ 3100
ST220014	1	Vegetarian	₹ 2100
ST220016	1	Veaetarian	₹ 2100

IIT HMC
MESS MANAGER

Complaint ID: 7 Student ID: 1007 Hall ID: 3 Status: Pending Description: Noisy environment Date Raised: 2024-10-07 Date Resolved: N/A ATR: N/A Respond Enter your response... Submit	Complaint ID: 9 Student ID: 1009 Hall ID: 1 Status: Pending Description: Food running out quickly Date Raised: 2024-10-09 Date Resolved: N/A ATR: N/A Respond
Complaint ID: 10 Student ID: 1010 Hall ID: 2	Complaint ID: 13 Student ID: 1013 Hall ID: 4