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# Logs Document

## for

# Mess Automation System

Version 0.1

Prepared by

**Group:7**

**Group Name:The Software Savants**

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**Date:** 23 Apr 2023

# Software Requirements Specifications

The following changes have been made in the SRS. Text/images highlighted in the red has been deleted and replaced by one in green.

The sections along with the changes are listed below:

## 1) 2.2 Product Functionality

The following changes has been made in this section-

The product should have the following functionality for the mess manager and mess secretary:

- ~~create accounts of hall residents and fill in the mess details.~~
- ~~details could contain mess bills, mess dues, list and price of extra items provided in mess, daily mess menu, rebate form, contact number of the mess manager, etc.~~
- ~~edit the mess bill if it has some calculation mistake.~~
- ~~clear the orders after received by users~~
- ~~approve/reject rebate requests~~

## 2) 3.1.1 User Interfaces

### 1. Sign-in

The user will be asked whether they want to sign-in as a student or as an incharge and they can select their roles and then proceed to sign-in.

The image displays two side-by-side screenshots of a login interface. The left screenshot, outlined in red, shows a 'Sign In' button at the bottom. The right screenshot, outlined in green, shows a 'Register' button at the bottom. Both screenshots include fields for 'Email' and 'Password' and a logo featuring a house and a spoon.

### 2. Register

The registration window prompts the user to input their Name, Roll Number, Email, and Password in their respective fields. Upon entering the required information, the user can proceed to create an account by clicking on the Register button.

# Mess Automation System

## IITK

Register

Name  Roll Number

Email address

Password  eye

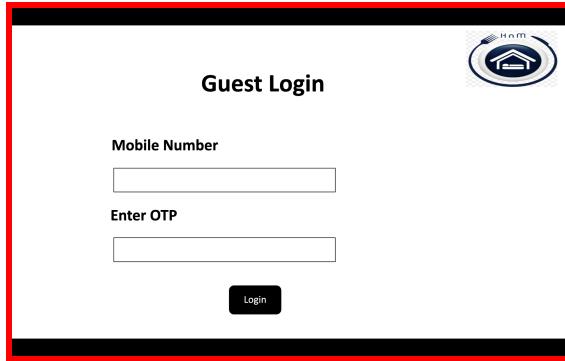
[Sign up](#)

Already have an account? [Login](#)

### 3. Homepage

### 4. Guest login

This page will ask user for their phone number ,there will be a dialogue box to enter the sent OTP and after clicking on login button the user will be verified and will be successfully logged in as a guest.



**Guest Login**

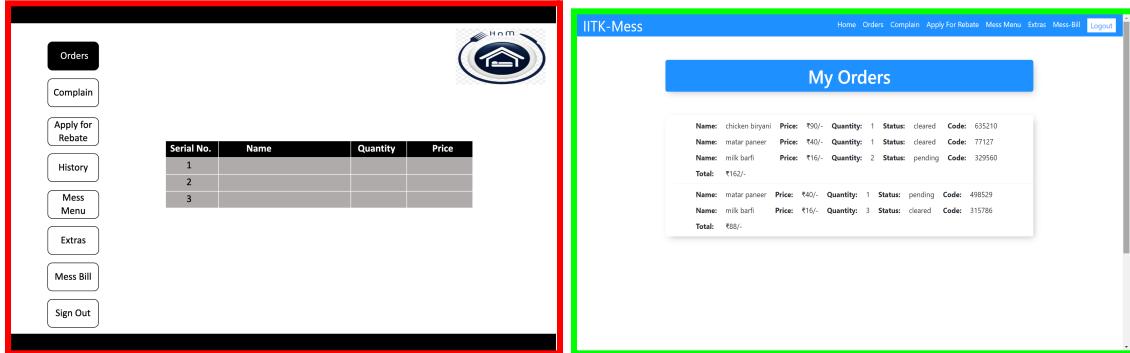
Mobile Number

Enter OTP

## 5. Student's interface

- **Orders**

This window will contain a list of all the **current orders** of a student and **columns for quantity ,price ,status and code provided** of all the corresponding items.



The left side shows the student's dashboard with a sidebar menu containing 'Orders' (highlighted with a red box), 'Complain', 'Apply for Rebate', 'History', 'Mess Menu', 'Extras', 'Mess Bill', and 'Sign Out'. Below the menu is a table:

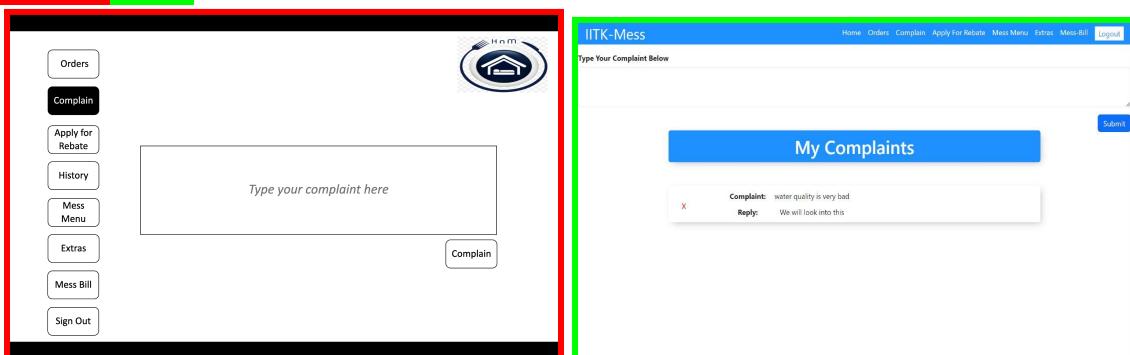
Serial No.	Name	Quantity	Price
1			
2			
3			

The right side shows the 'My Orders' section of the application. It displays a list of ordered items with their details:

Name	Price	Quantity	Status	Code
chicken biyani	₹90/-	1	cleared	635210
mutter paneer	₹140/-	1	cleared	77127
milk barfi	₹16/-	2	pending	309560
<b>Total:</b>	<b>₹162/-</b>			
matte paneer	₹60/-	1	pending	498529
milk barfi	₹16/-	3	cleared	315796
<b>Total:</b>	<b>₹88/-</b>			

- **Complaint**

The student can type his complain in the space provided and hit the submit button. User can also check on manager's reply and status of complaint **in the status column.**



The left side shows the student's dashboard with a sidebar menu containing 'Orders' (highlighted with a red box), 'Complain', 'Apply for Rebate', 'History', 'Mess Menu', 'Extras', 'Mess Bill', and 'Sign Out'. Below the menu is a text input field with placeholder text 'Type your complaint here' and a 'Complain' button.

The right side shows the 'My Complaints' section of the application. It displays a list of complaints with their details:

Complaint	Reply
water quality is very bad	We will look into this

- **Apply for rebate**

In this page the student will be asked **his roll no., date, starting date and end date** to apply for his rebate, after filling all the details in the respective dialogue boxes and clicking on

the apply button the student will have successfully applied for his rebate (if the student does not have any active request).

- History

Here the student can track his expenses , there will be columns for item name,quantity,price and date of purchase, and the total expenses will be displayed at the bottom.

Serial No.	Name	Quantity	Price	Date
1				
2				
3				

- Mess menu

	Breakfast	Lunch	Dinner
Daily			
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

Monday Menu		
Breakfast	Lunch	Dinner
<b>Regular:</b> milk bread sandwich chai/coffee	<b>Regular:</b> roti mix veg rice curd/fruit/buttermilk	<b>Regular:</b> rice panner pyaza fruit custard/ice-cream <b>Extras:</b> rajma <b>Extras:</b> red sauce pasta
<b>Extras:</b> aloo bhujia		

- Extras

Here students can book extras by clicking on the order button. The list of extras and their prices will be displayed . Students can regulate the quantity.

**IITK-Mess**

**Extras**

Name:	Price:	Quantity:
chicken biryani	₹50/-	0
matar paneer	₹40/-	0
milk barfi	₹16/-	0
Biryani	₹78/-	0

**Order**

- **Mess bill and dues**

Students can view their monthly past mess bills and mess dues here.

**IITK-Mess**

**Bills**

From:	February 19, 2023	To:	February 28, 2023
Working Days:	10		
Rebate Days:	0		
Daily Cost:	₹60/-	Extras Cost:	₹25/-
Total:	₹1092/-		

## 6. Guest's interface

The guest can only be able to see the Mess menu, extras and orders tab of the normal student login.

**IITK-Mess**

**Orders**

Date	Price	Order
Breakfast		
Lunch		
Dinner		

**Mess Menu**

Breakfast	Lunch	Dinner
Daily		
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		

**Extras**

Serial No.	Extra Items	Price	Order
1			
2			
3			
4			
5			
6			
7			
8			

## 7. Manager's interface

- Orders

Here the mess manager can view the **current orders** and clear them after issuing .

Serial No.	Extra Item	Quantity	Price	Roll no.
1				
2				
3				

Roll:	Name:	Price:	Quantity:	Status:	Total:
210279	chicken biryani	₹90/-	1	cleared	
210748	matar paneer	₹40/-	1	cleared	
210279	milk barfi	₹16/-	2	pending	₹32/-
210279	chicken biryani	₹90/-	2	cleared	
210748	matar paneer	₹40/-	2	pending	
210279	milk barfi	₹16/-	3	cleared	
					Total: ₹162/-

- Complaints

This page contains **columns for the serial no , student details roll no and the complaint lodged by him** . Manager can reply and update about the status in the reply column.

Serial No.	Roll No.	Complaints	Reply
1.			
2.			
3.			

Roll:	Complaint:	Reply	Send
100010	food quality is very bad		
100010	milk quality is very bad	Reply	Send
100010	water quality is very bad	Reply	Send
210761	Food taste is not good	Reply	Send

- Rebate approval

This page contains the list of rebate requests. The manager can view and approve/reject the requests.

Serial No.	Roll No.	Date	Start Date	End Date	No. of days
1					
2					
3					

Roll:	From:	To:	No. of days:	Status:
210761	April 26, 2023	April 27, 2023	2	Approved
210748	April 23, 2023	April 27, 2023	5	Approved
210279	April 23, 2023	May 2, 2023	10	Approved

- Mess menu

This window would have the mess menu displayed , by clicking on the **edit add/remove** button one can **access and change the contents of the menu**.

**IITK-Mess**

**Monday Menu**

Breakfast	Lunch	Dinner
Regular: milk <span style="color:red">Remove</span>	Regular: roti <span style="color:red">Remove</span>	Regular: rice <span style="color:red">Remove</span>
bread <span style="color:red">Remove</span>	mix veg <span style="color:red">Remove</span>	panner pyaza <span style="color:red">Remove</span>
sandwich <span style="color:red">Remove</span>	rice <span style="color:red">Remove</span>	fruit custard/ice-cream <span style="color:red">Remove</span>
chai/coffee <span style="color:red">Remove</span>	rajma <span style="color:red">Remove</span>	
Name <span style="color:green">Add</span>	curd/fruit/buttermilk <span style="color:red">Remove</span>	Name <span style="color:green">Add</span>
Extras: maggi, omlette, egg, full fry, <span style="color:red">Remove</span>	Name <span style="color:green">Add</span>	Extras: Name <span style="color:green">Add</span>

- **Extras**

This window contains the list of extras available. Manager can view and edit the list.

**IITK-Mess**

**Extras**

Name: chicken biryani	Price: ₹50/-	<span style="color:red">Remove</span>
Name: matar paneer	Price: ₹40/-	<span style="color:red">Remove</span>
Name: milk batli	Price: ₹16/-	<span style="color:red">Remove</span>
Name: Biryani	Price: ₹70/-	<span style="color:red">Remove</span>

- **Access account**

Manager can enter the roll number of the student and access their accounts. The Manager is capable of creating bills for all students based on specified start and end dates and daily cost. Additionally, manager can view previously generated bills for reference

**IITK-Mess**

**Generated Bills**

**Generate Bill**

Starting date: dd-mm-yyyy   
Ending Date: dd-mm-yyyy   
Daily Cost:

**Find Account**

Roll Number:   
Current Dues: 0  
Current Extras: 0

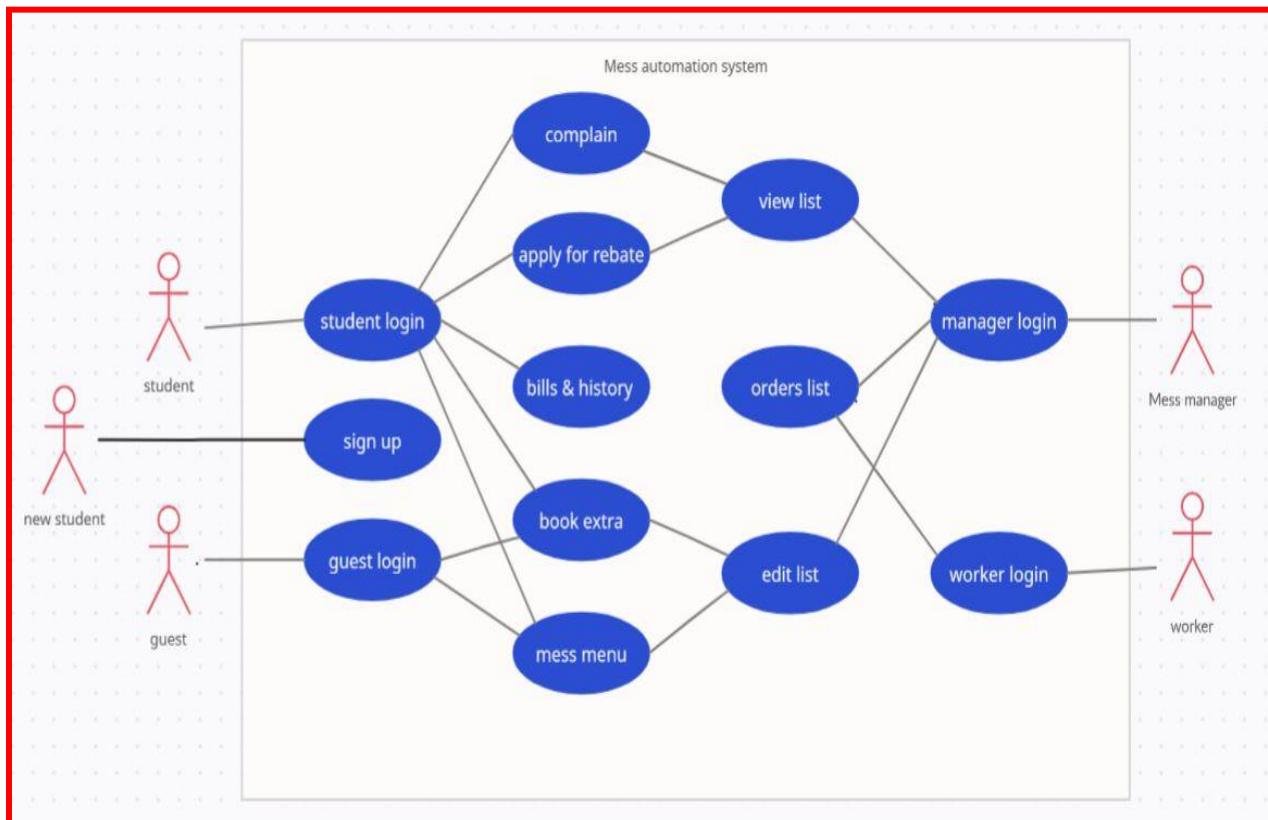
**Update Account**

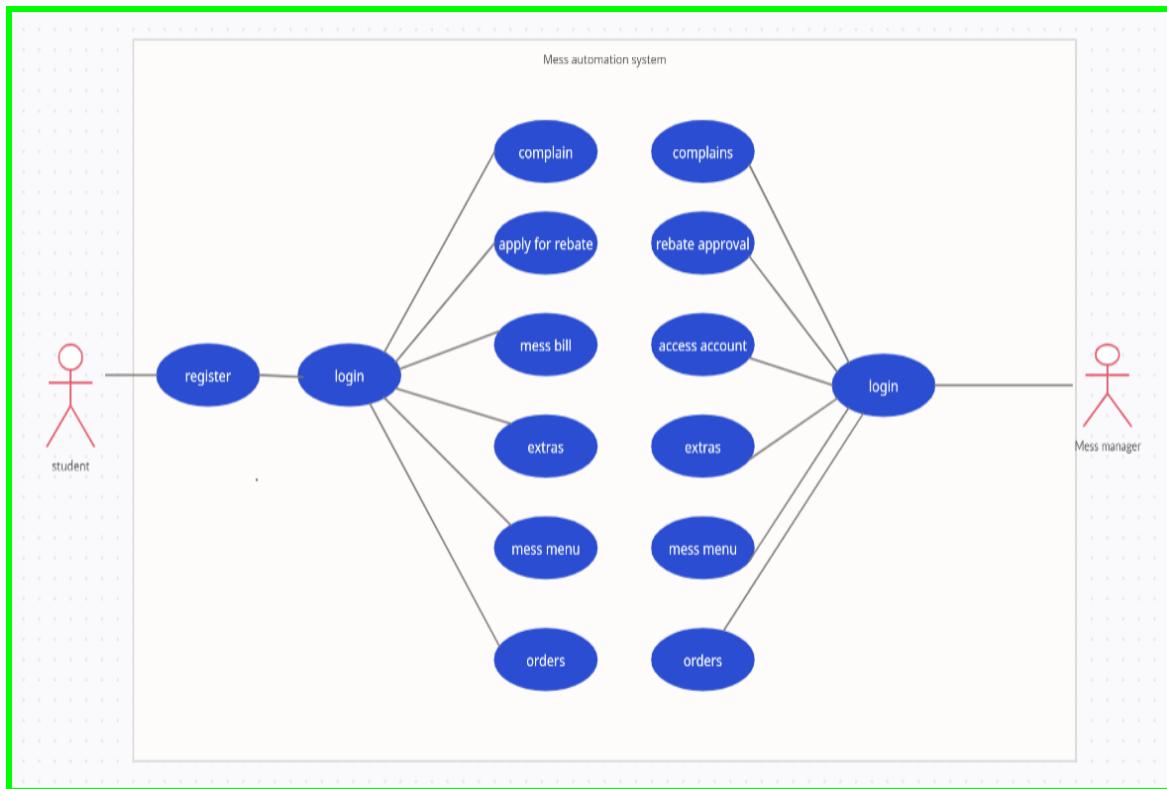
Roll Number:   
New Dues: 0  
New Extras: 0

### 3)3.2 Functional Requirements

1. Hall Manager can make his/her account (manager\_id=create\_account(email-id,pswd))
5. Hall manager can upload mess rebate form. (Upload\_rebate\_form (manager\_id))
15. Other residents can book mess food using guest login(Guest\_login(mobile\_number,))
18. Hall resident can make his/her account (student\_id=create-account(email-id,pswd)).
19. Hall manager can accept or reject the rebate request. (Update\_rebate\_request (manager\_id))
20. Hall residents can see their orders (orders(student\_id)).

### 4)3.3 Use Case Model





### 5)3.3.1 Use cases

S.No	#3
Author	Sanjay Kumar
Purpose	Mess Manager registration and account creation
Requirement Traceability	Institute Email ID,Hall detail
Priority	High
Preconditions	Institute E-mail ID should be valid/correct
Post Conditions	After email verification,Manager is registered in the database
Actors	Mess Manager's device

Exceptions	Incorrect/ Invalid Email
Includes	None
Notes/Issues	Manager must be able to register with their Institute E-mail ID only

S.No	#6
Author	Chandaka Hemanth Kumar
Purpose	Guest user login using phone number and OTP verification
Requirement Traceability	Phone number
Priority	medium
Preconditions	None
Post Conditions	User is now logged-in and be able to book items
Actors	User's device
Exceptions	phone number should be valid
Includes	none

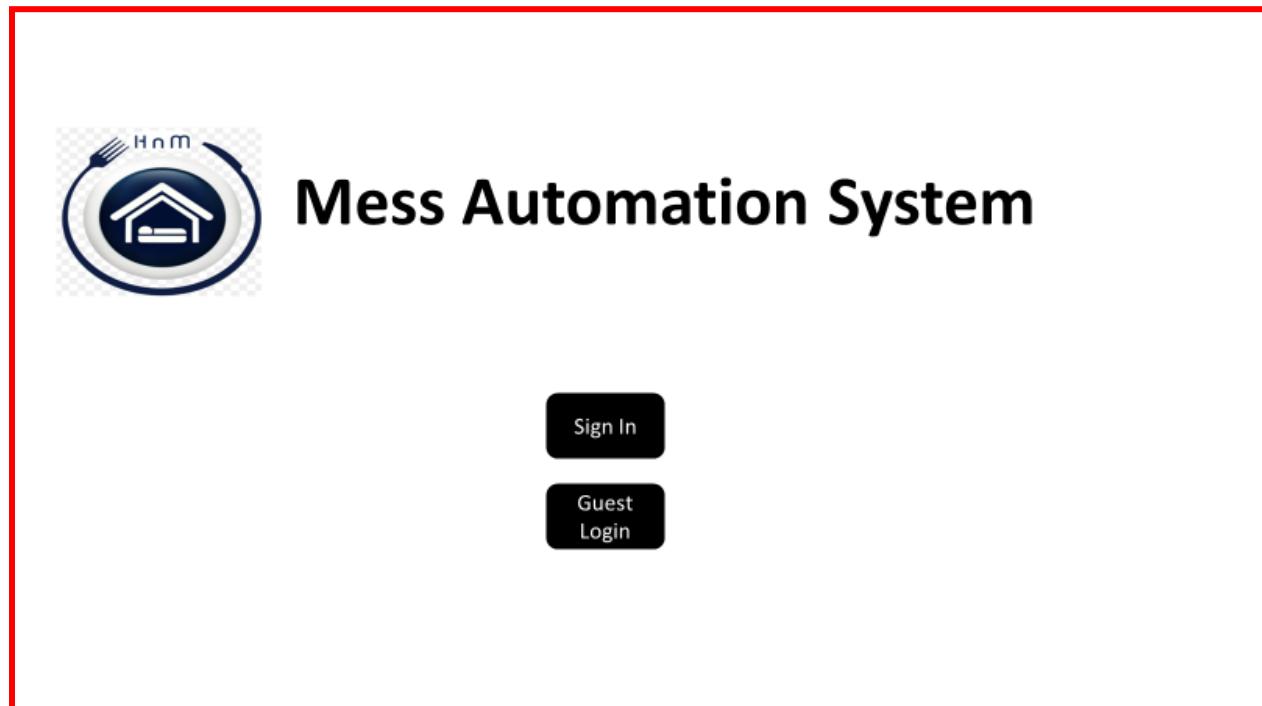
# Software Design Document

The following changes have been made in the SDS. Text/images highlighted in the red has been deleted and replaced by one in green.

The sections along with the changes are listed below:

## 1) 1.2 Human Interface Design

There are **eighteen** **fourteen** interfaces in our web-app, each having its own utility. Each interface is meant to be used for either hall residents or mess manager **or guests** and facilitates a smooth user experience with the clients. The interface design of the mess automation system with all eighteen interfaces is given below.



**Sign in(Manager and Resident's Dashboard)**

**sign\_in(email-id,pswd)**



## Sign In

Email

Password

Sign In

# Mess Automation System IITK

Login

Email address

Password

Sign In

Don't have an account yet? [Register](#)

Guest Login

Guest\_login(mobile\_number,  
OTP)



## Guest Login

**Mobile Number**

**Enter OTP**

**Login**

**Orders(Resident's  
Dashboard)**

**Book\_extras(extra\_item\_name)**

IITK-Mess

[Home](#) [Orders](#) [Complain](#) [Apply For Rebate](#) [Mess Menu](#) [Extras](#) [Mess-Bill](#) [Logout](#)

### My Orders

Name: chicken biryani Price: ₹90/- Quantity: 1 Status: cleared Code: 635210

Name: matar paneer Price: ₹40/- Quantity: 1 Status: cleared Code: 77127

Name: milk barfi Price: ₹16/- Quantity: 2 Status: pending Code: 329560

Total: ₹162/-

Name: matar paneer Price: ₹40/- Quantity: 1 Status: pending Code: 498529

Name: milk barfi Price: ₹16/- Quantity: 3 Status: cleared Code: 315786

Total: ₹88/-

## Complain(Resident's Dashboard)

### Complain(complaint)

The screenshot shows a web application interface for 'IITK-Mess'. At the top, there is a blue header bar with the text 'IITK-Mess' on the left and navigation links: Home, Orders, Complain, Apply For Rebate, Mess Menu, Extras, Mess-Bill, and Logout on the right. Below the header, a text input field is labeled 'Type Your Complaint Below'. A large blue button in the center says 'My Complaints'. To the right of this button is a 'Submit' button. Underneath the 'My Complaints' button, there is a list item containing a red 'X' icon, the text 'Complaint: water quality is very bad', and the text 'Reply: We will look into this'.

## Apply for Rebate(Resident's Dashboard)

**Mess\_Rebate(Roll\_no, Date,  
Start\_Date, End\_Date,  
No\_of\_days)**

[Orders](#)
[Complain](#)
[Apply for Rebate](#)
[History](#)
[Mess Menu](#)
[Extras](#)
[Mess Bill](#)
[Sign Out](#)

Roll number

Date

Number of Days

Starting Date

End Date



IITK-Mess

**Active rebate**

Starting date

Ending Date

Status

**Request rebate**

Starting date

Ending Date

Past Rebate requests

From: April 20, 2023 To: April 20, 2023

Days: 1 Status: Rejected

<b>History(Resident's Dashboard)</b>
<b>History(User_id)</b>



Orders

Complain

Apply for  
Rebate

History

Mess  
Menu

Extras

Mess Bill

Sign Out

Serial No.	Name	Quantity	Price	Date
1				
2				
3				

Total :

### Mess Menu(Resident's and Guest's Dashboard)

get\_menu(User\_id)

[Orders](#)  
[Complain](#)  
[Apply for Rebate](#)  
[History](#)  
**[Mess Menu](#)**  
[Extras](#)  
[Mess Bill](#)  
[Sign Out](#)



	Breakfast	Lunch	Dinner
Daily			
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

## IITK-Mess

[Home](#) [Orders](#) [Complain](#) [Apply For Rebate](#) [Mess Menu](#) [Extras](#) [Mess-Bill](#) [Logout](#)

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

### Monday Menu

#### Breakfast

##### Regular:

milk  
bread  
sandwich  
chai/coffee

##### Extras:

aloo bhujia

#### Lunch

##### Regular:

roti  
mix veg  
rice  
curd/fruit/buttermilk

##### Extras:

red sauce pasta

#### Dinner

##### Regular:

rice  
panner pyaza  
fruit custard/ice-cream  
rajma

##### Extras:

aloo chat

**Extras(Resident's and Guest's Dashboard)**

**Book\_extras(extra\_item\_name)**

[Orders](#)  
[Complain](#)  
[Apply for Rebate](#)  
[History](#)  
[Mess Menu](#)  
**Extras**  
[Mess Bill](#)  
[Sign Out](#)



Serial No.	Extra Items	Price	
1			<a href="#">Order</a>
2			<a href="#">Order</a>
3			<a href="#">Order</a>
4			<a href="#">Order</a>
5			<a href="#">Order</a>
6			<a href="#">Order</a>
7			<a href="#">Order</a>
8			<a href="#">Order</a>

IITK-Mess

[Home](#) [Orders](#) [Complain](#) [Apply For Rebate](#) [Mess Menu](#) [Extras](#) [Mess-Bill](#) [Logout](#)

### Extras

Name:	chicken biryani	Price:	₹90/-	<input type="text" value="0"/>
Name:	matar paneer	Price:	₹40/-	<input type="text" value="0"/>
Name:	milk barfi	Price:	₹16/-	<input type="text" value="0"/>
Name:	Biryani	Price:	₹78/-	<input type="text" value="0"/>

[Order](#)

**Mess Bill(Resident's Dashboard)**

**See\_mess\_menu(User\_id)**

[Orders](#)[Complain](#)[Apply for  
Rebate](#)[History](#)[Mess  
Menu](#)[Extras](#)[Mess Bill](#)[Sign Out](#)

Mess Bill	
Mess Dues	
Extras	
Total	

IITK-Mess

[Home](#) [Orders](#) [Complain](#) [Apply For Rebate](#) [Mess Menu](#) [Extras](#) [Mess-Bill](#) [Logout](#)

## Bills

**From:** February 19, 2023    **To:** February 28, 2023

**Working Days:** 10

**Rebate Days:** 0

**Daily Cost:** ₹80/-    **Extras Cost:** ₹292/-

**Total:** ₹1092/-

### Orders(Guest's Dashboard)

#### Book(meal\_name)



Orders

Mess  
Menu

Extras

Log Out

	Date	Price	
Breakfast			<a href="#">Order</a>
Lunch			<a href="#">Order</a>
Dinner			<a href="#">Order</a>

## Orders(Manager's Dashboard)

[See\\_order\(manager\\_id\)](#)

Orders

Complaints

Rebate Approval

Mess Menu

Extras

Access Account

Sign Out



Serial No.	Extra Item	Quantity	Price	Roll no.
1				
2				
3				

IITK-Mess

Orders Complaints Rebate Approval Mess Menu Extras Access Account Logout

## Orders

Roll:	210279
Name:	chicken biryani
Price:	₹90/-
Quantity:	1
Status:	cleared
Name:	matar paneer
Price:	₹40/-
Quantity:	1
Status:	cleared
● Name:	milk barfi
Price:	₹16/-
Quantity:	2
Status:	pending
Total:	₹162/-
Roll:	210748
Name:	chicken biryani
Price:	₹90/-
Quantity:	2
Status:	cleared
● Name:	matar paneer
Price:	₹40/-
Quantity:	2
Status:	pending
Name:	milk barfi
Price:	₹16/-
Quantity:	2
Status:	cleared
Total:	₹292/-
Roll:	210279
● Name:	matar paneer
Price:	₹40/-
Quantity:	1
Status:	pending
Name:	milk barfi
Price:	₹16/-
Quantity:	3
Status:	cleared
Total:	₹88/-

## Complaints(Manager's Dashboard)

## Reply\_complaints(Reply)

Orders

Complaints

Rebate Approval

Mess Menu

Extras

Access Account

Sign Out



Serial No.	Roll No.	Complaints	Reply
1.			
2.			
3.			

IITK-Mess

Orders Complaints Rebate Approval Mess Menu Extras Access Account Logout

## Complaints

**Roll:** 100010

**Complaint:** food quality is very bad

Reply

Send

**Roll:** 100010

**Complaint:** milk quality is very bad

Reply

Send

**Roll:** 100010

**Complaint:** water quality is very bad

Reply

Send

**Roll:** 210761

**Complaint:** food quality is bad

## Rebate Approval(Manager's Dashboard)

Upload\_rebate\_form (manager\_id)

[Orders](#)[Complaints](#)[Rebate Approval](#)[Mess Menu](#)[Extras](#)[Access Account](#)[Sign Out](#)

Serial No.	Roll No.	Date	Start Date	End Date	No. of days
1					
2					
3					

IITK-Mess

[Orders](#) [Complaints](#) [Rebate Approval](#) [Mess Menu](#) [Extras](#) [Access Account](#) [Logout](#)

## Rebate requests

<input checked="" type="checkbox"/> <input type="checkbox"/>	<b>Roll:</b> 210761	<b>No. of days:</b> 2
	<b>From:</b> April 26, 2023	<b>To:</b> April 27, 2023
<input checked="" type="checkbox"/> <input type="checkbox"/>	<b>Roll:</b> 210748	<b>No. of days:</b> 5
	<b>From:</b> April 23, 2023	<b>To:</b> April 27, 2023
<input checked="" type="checkbox"/> <input type="checkbox"/>	<b>Roll:</b> 210279	<b>No. of days:</b> 10
	<b>From:</b> April 23, 2023	<b>To:</b> May 2, 2023

**Mess\_Menu(Manager's Dashboard)****Upload\_mess\_menu (mess\_menu)**

[Orders](#)  
[Complaints](#)  
[Rebate Approval](#)  
**Mess Menu**  
[Extras](#)  
[Access Account](#)  
[Sign Out](#)



	Breakfast	Lunch	Dinner
Daily			
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

[EDIT](#)

IITK-Mess
Orders Complaints Rebate Approval Mess Menu Extras Access Account
Logout

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Monday Menu</b>						
<b>Breakfast</b>			<b>Lunch</b>		<b>Dinner</b>	
Regular:			Regular:		Regular:	
milk	Remove		roti	Remove	rice	Remove
bread	Remove		mix veg	Remove	panner pyaza	Remove
sandwich	Remove		rice	Remove	fruit custard/i ce-cream	Remove
chai/coffee	Remove		rajma	Remove	Name	Add
Name	Add		curd/fruit/butt ermilk	Remove	Name	Add
Extras:			Extras:		Extras:	
maggi, omlett e, egg, full fry,			Remove			

[Extras\(Manager's Dashboard\)](#)

[Upload\\_extras\(extra\\_name,price\)](#)



Serial No.	Roll No.	Extra Items	Price
1			
2			
3			
4			
5			
6			
7			
8			

[EDIT](#)

Orders
Complaints
Rebate Approval
Mess Menu
Extras
Access Account
Sign Out

IITK-Mess

[Orders](#) [Complaints](#) [Rebate Approval](#) [Mess Menu](#) [Extras](#) [Access Account](#) [Logout](#)

Extras

Name:	chicken biryani	Price:	₹90/-	<a href="#">Remove</a>
Name:	matar paneer	Price:	₹40/-	<a href="#">Remove</a>
Name:	milk barfi	Price:	₹16/-	<a href="#">Remove</a>
Name:	Biryani	Price:	₹78/-	<a href="#">Remove</a>

Add

**Access Account(Manager's Dashboard)**

**Access(Roll\_No)**

[Orders](#)  
[Complaints](#)  
[Rebate Approval](#)  
[Mess Menu](#)  
[Extras](#)  
[Access Account](#)  
[Sign Out](#)



**Student Roll no.**

**ACCESS**

IITK-Mess
Orders Complaints Rebate Approval Mess Menu Extras Access Account
Logout

**Generate Bill**

Starting date  
 Calendar icon

Ending Date  
 Calendar icon

Daily Cost

**Generate**

**Find Account**

Roll Number

Current Dues

Current Extras

**Find**

**Update Account**

Roll Number

New Dues

New Extras

**Update**

**Generated Bills**

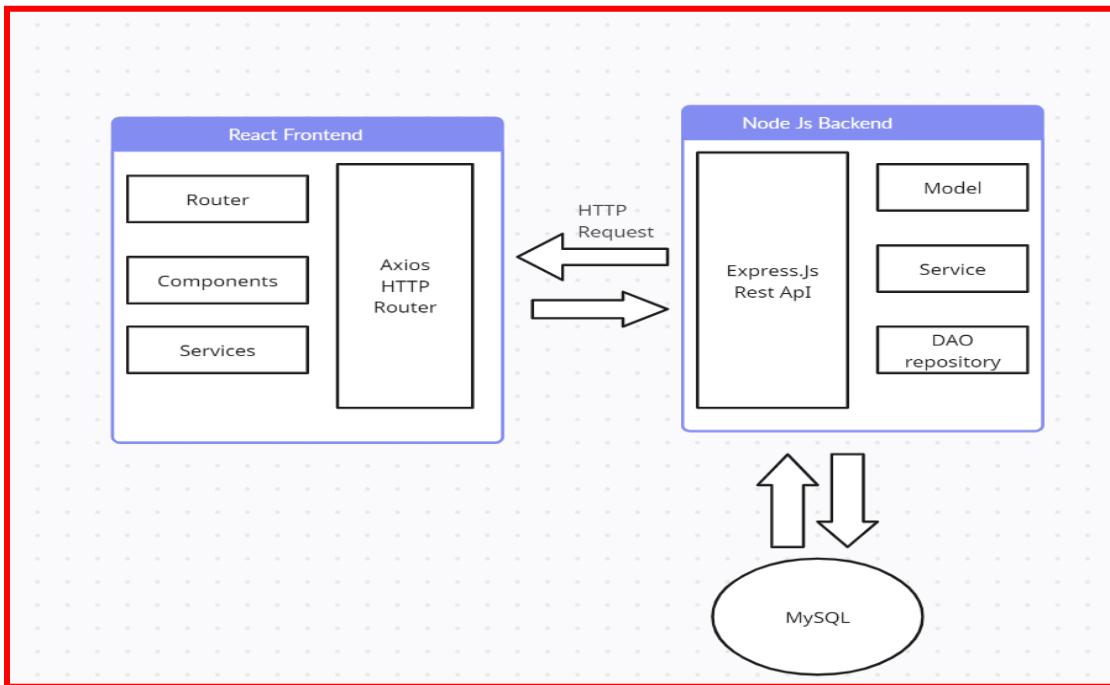
From:
April 6, 2023
To:
April 8, 2023

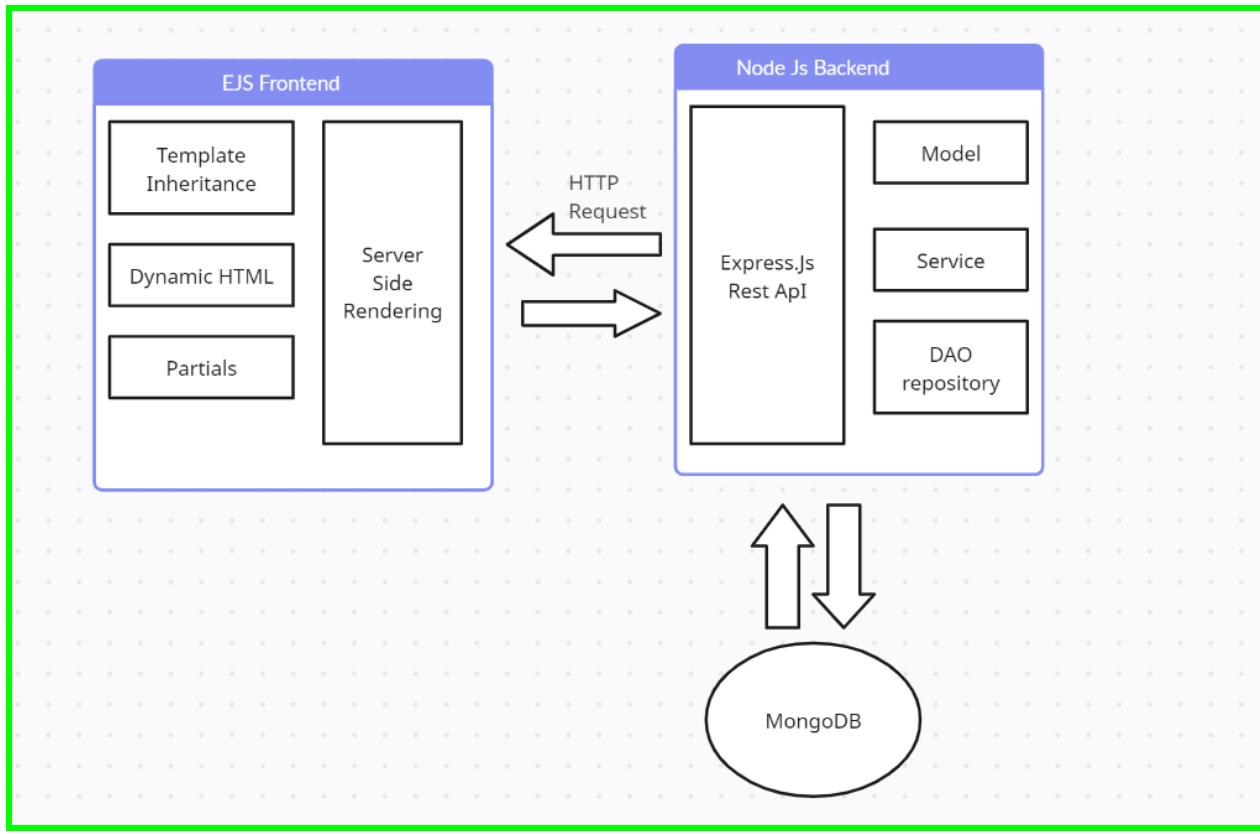
<b>Verify Orders (worker's dashboard)</b>
<b>Edit status</b>

SEARCH CODE

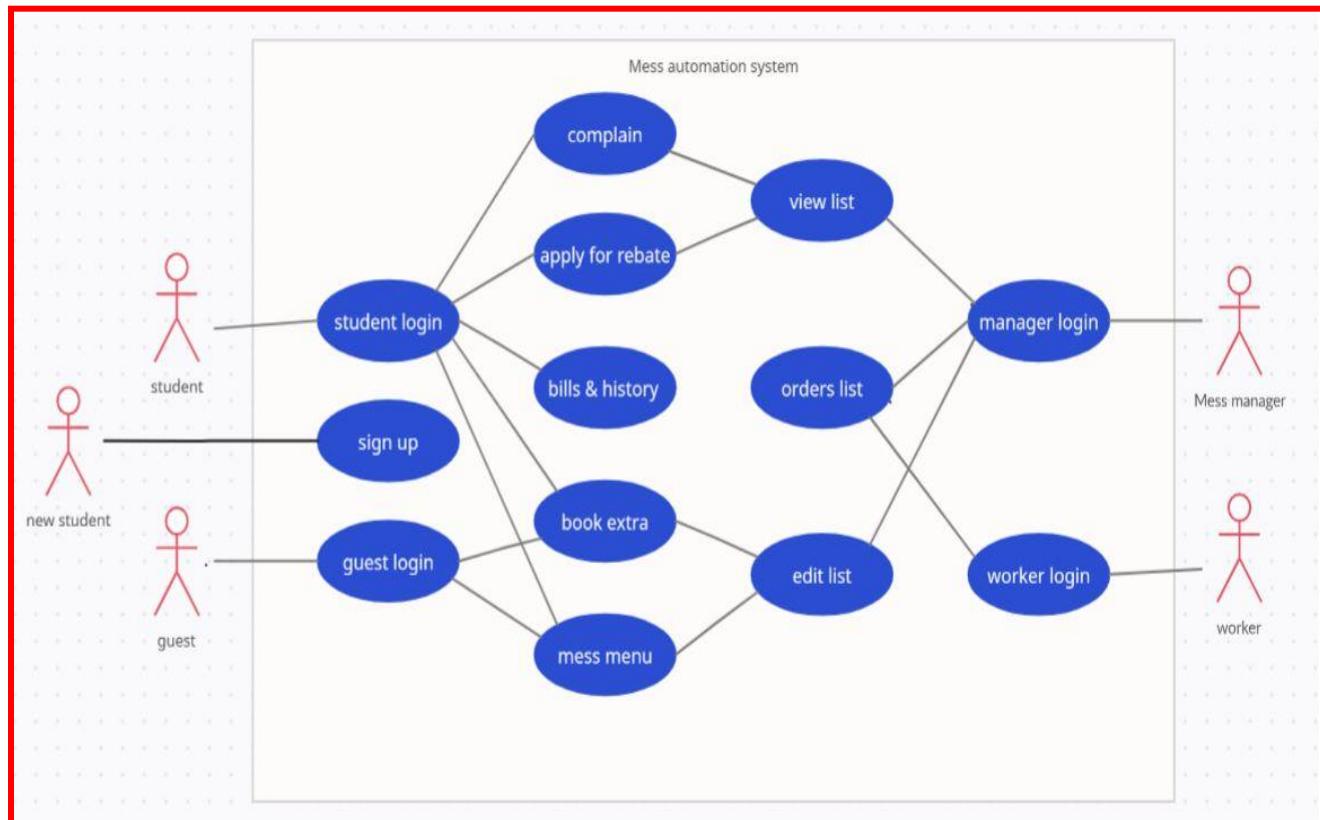
Serial No.	Code	Roll No.	Ordered Items	Status
1				
2				
3				
4				
5				
6				
7				
8				

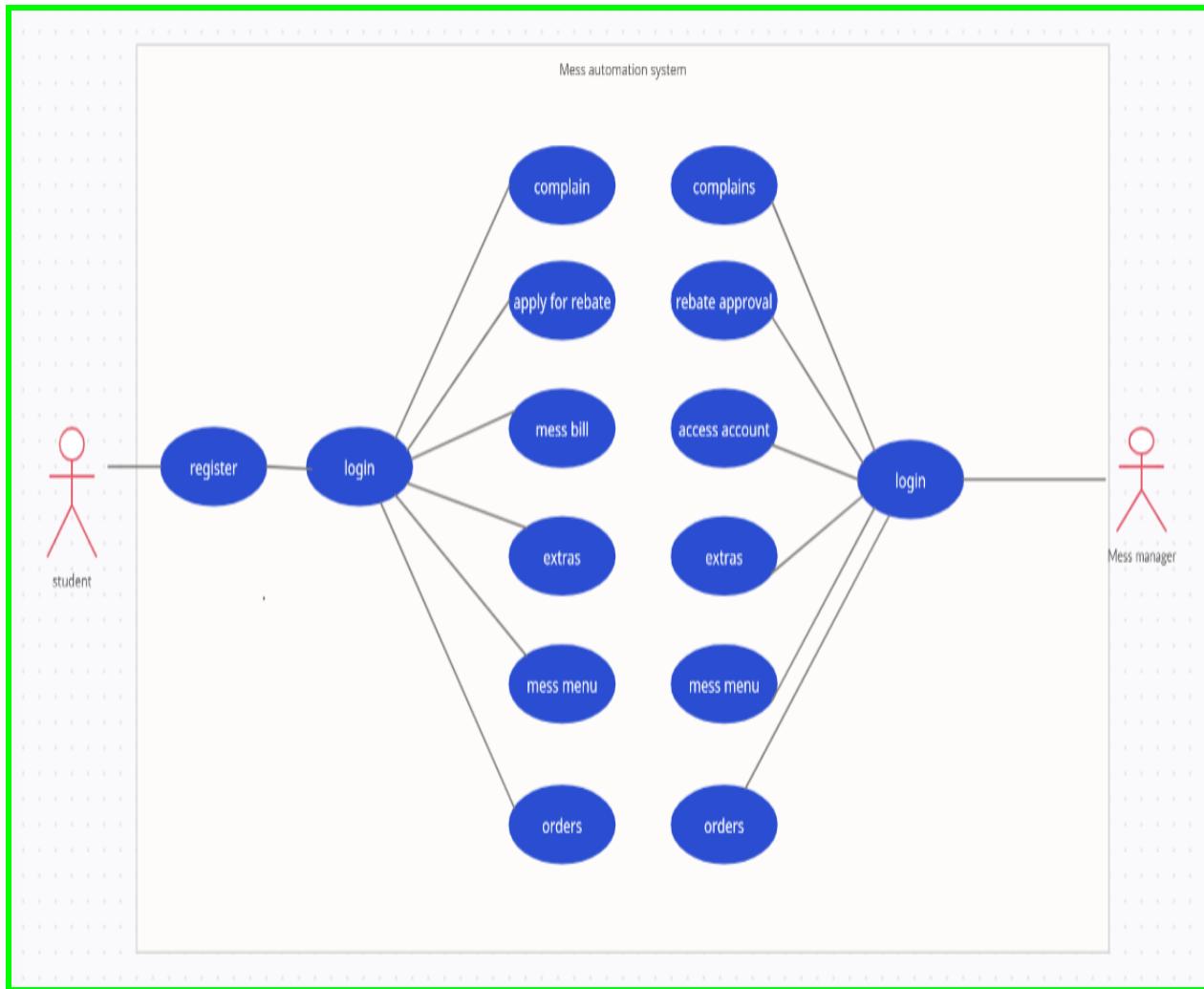
## 2) 2-Architecture Design



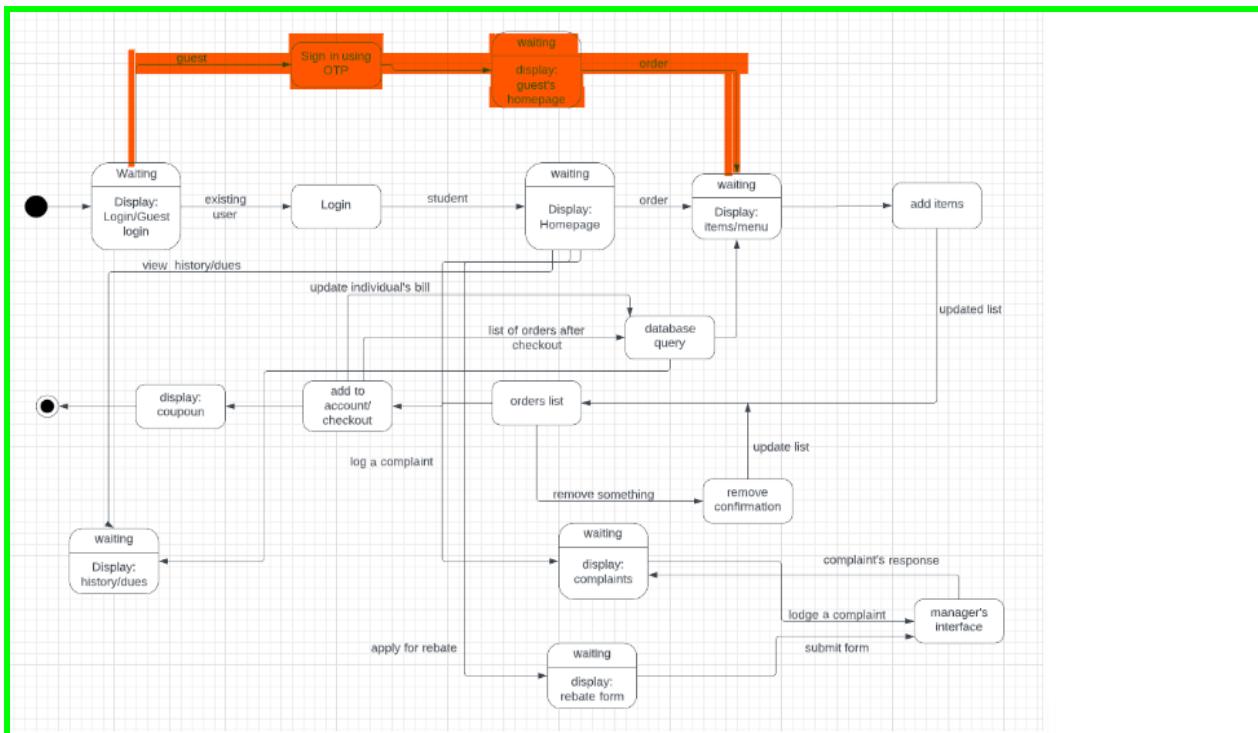
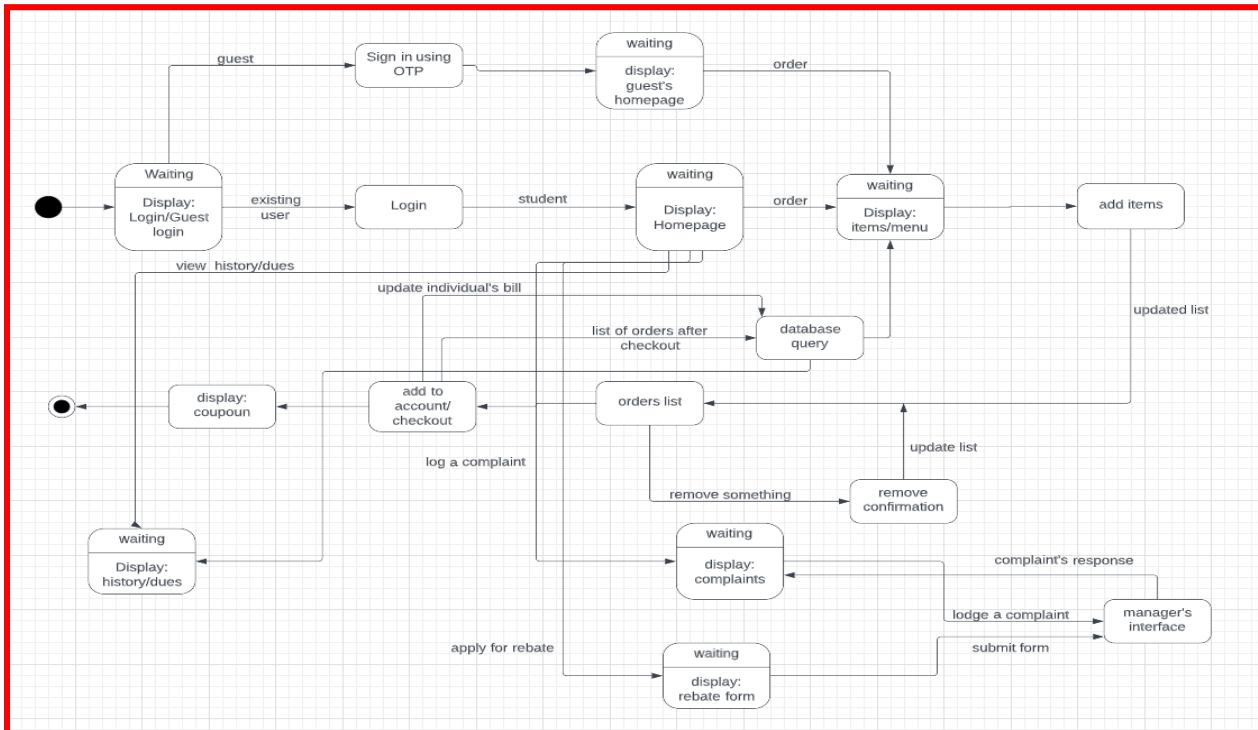


### 3) 3.1 Use Case Diagrams





#### 4) 3.4 State Diagrams



# Software Implementation Document

The following changes have been made in the Software Implementation Document. Sections in red has been deleted and is replaced by sections in green

## 1)1.2 Logic Tier

The logic tier is implemented in Java, one of the most widely used programming languages in the world.

The advantages of using Java are as follows:

- **Simplicity:** Java has been used by developers for more than 20 years and is considered to be one of the simplest languages to learn due to its less ambiguous syntax terminology.
- **Cross-platform:** Being an object-oriented compiled language, Java allows you to write the code once and run it anywhere on any platform (Windows, Mac OS, and Linux)
- **Multi-threading:** Java uses a multi-threaded web server that processes each request in a separate thread. That enables it to perform several tasks simultaneously without querying the events.
- **Robust & scalable:** The automatic memory management and garbage collection make Java highly scalable and speed up the development of web applications.

The framework used on the top of Java is Spring Boot. Spring Boot is an open-source Java-based framework used to create web services, especially microservices.

Spring Boot offers the following advantages to its developers –

- Easy to understand and develop spring applications
- It provides a flexible way to configure Java Beans, XML configurations, and Database Transactions.
- It provides powerful batch processing and manages REST endpoints.
- In Spring Boot, everything is auto-configured; no manual configurations are needed.
- It offers annotation-based spring application
- Eases dependency management
- It includes Embedded Servlet Container

The logic tier is implemented in Javascript, one of the most widely used programming languages in the world.

The advantages of using JavaScript are as follows:

- **Simplicity:** JavaScript is a widely-used programming language with a syntax that is easy to understand and use. It has a low learning curve and is beginner-friendly.
- **Cross-platform:** JavaScript is a browser-based language that can be executed on any platform, including Windows, Mac OS, Linux, and mobile devices.
- **Asynchronous programming:** JavaScript is a single-threaded language that uses asynchronous programming to execute multiple tasks simultaneously, resulting in faster and more efficient code.

- **Versatility:** JavaScript can be used to create web and mobile applications, as well as server-side applications using frameworks like Node.js. It is also used in game development and desktop application development.
- **Large community:** JavaScript has a large and active community of developers who regularly contribute to open-source projects, provide support, and share knowledge.

The framework used on the top of Javascript is Node Js. Node.js is a popular runtime that can be used to develop web services and microservices.

Node.js offers the following advantages to its developers:

- Easy to learn and develop web applications with JavaScript
- It provides a flexible way to configure modules, packages, and dependencies using Node Package Manager (NPM).
- It offers powerful event-driven and non-blocking I/O processing.
- Node.js has a built-in HTTP module for creating and managing RESTful APIs.
- It offers a lightweight and fast web server, with options for customizing server configurations.
- Node.js has a large and active community of developers, with a wealth of open-source packages and libraries available for use.

## 1.5 Hosting Service

We have planned to use Heroku, a platform as a service (PaaS) that enables developers to build, run, and operate applications entirely in the cloud. All three tiers of our application, the frontend, the backend and the database run on the Heroku cloud.

Here are the pros/benefits of using Heroku:

- Allows the developer to focus on code instead of infrastructure
- Generous free-tier is useful for students.
- Enhance the productivity of cloud app development team
- Simple Horizontal & Vertical Scalability
- Offers a powerful dashboard and CLI
- Integrates with familiar developer workflows
- Beginner and startup-friendly

We have used Render, a platform as a service (PaaS) that enables developers to build, run, and operate applications entirely in the cloud. All three tiers of our application, the frontend, the backend and the database run on the Render cloud.

Here are the benefits of using Render:

- Enables developers to focus on code by providing a simple and intuitive platform for deploying applications.
- Offers a free tier with generous resource limits, which is helpful for students and small projects.
- Enhances the productivity of development teams with automated build and deployment processes.
- Provides simple horizontal and vertical scalability with no downtime.
- Offers a powerful web dashboard and command-line interface (CLI) for managing applications and services.
- Integrates with familiar developer workflows, including Git and Docker.
- Beginner and startup-friendly with clear documentation and excellent customer support.

# Software Test Document

## 3. Extras: Tests related to seeing extras from resident to manager and adding extras from manager to resident

IITK-Mess

Orders Complaints Rebate Approval Mess Menu Extras Access Account Logout

### Extras

Vada Pav	60	Add
----------	----	-----

IITK-Mess

Orders Complaints Rebate Approval Mess Menu Extras Access Account Logout

### Extras

Name:	chicken biryani	Price:	₹90/-	Remove
Name:	matar paneer	Price:	₹40/-	Remove
Name:	milk barfi	Price:	₹16/-	Remove
Name:	Biryani	Price:	₹78/-	Remove
Name:	Mango shake	Price:	₹45/-	Remove

Name  Price

## Extras

Name: Vada Pav Price: ₹60/-

[Order](#)

## Extras

Name: chicken biryani Price: ₹90/-

Name: matar paneer Price: ₹40/-

Name: milk barfi Price: ₹16/-

Name: Biryani Price: ₹78/-

Name: Mango shake Price: ₹45/-

[Order](#)

#### 4. Bill : Tests related to seeing bill from resident to manager and generating bill from manager to resident

IITK-Mess

Orders Complaints Rebate Approval Mess Menu Extras Access Account Logout

**Generate bill**

**Starting date**  
01-04-2023

**Ending Date**  
30-04-2023

**Daily Cost**  
78

**Update dues**

IITK-Mess

Orders Complaints Rebate Approval Mess Menu Extras Access Account Logout

**Generate Bill**

Starting date  
25-03-2023

Ending Date  
31-03-2023

Daily Cost  
89

**Find Account**

Roll Number

Current Dues

Current Extras

**Update Account**

Roll Number

New Dues

New Extras

**Generated Bills**

From: April 6, 2023 To: April 8, 2023

Working Days: 3 Daily Cost: ₹100/-

IITK-Mess

Orders Complaints Rebate Approval Mess Menu Extras Access Account Logout

### Generate Bill

Starting date

Ending Date

Daily Cost

### NOTE

Bill has been generated

### Update Account

Roll Number

New Dues

New Extras

### Generated Bills

From: April 6, 2023 To: April 8, 2023

Working Days: 3 Daily Cost: ₹100/-

IITK-Mess

Home Orders Complain Apply For Rebate Mess Menu Extras Mess-Bill Logout

### Bills

From: April 1, 2023 To: April 30, 2023

Working Days: 29

X Rebate Days: 4

Daily Cost: ₹78/- Extras Cost: ₹0/-

Total: ₹1950/-

From:	February 19, 2023	To:	February 20, 2023
<b>Working Days:</b>	10		
<b>Rebate Days:</b>	0		
<b>Daily Cost:</b>	₹80/-	<b>Extras Cost:</b>	₹0/-
<b>Total:</b>	₹800/-		
From:	February 19, 2023	To:	February 28, 2023
<b>Working Days:</b>	10		
<b>Rebate Days:</b>	0		
<b>Daily Cost:</b>	₹80/-	<b>Extras Cost:</b>	₹0/-
<b>Total:</b>	₹800/-		
From:	April 21, 2023	To:	April 24, 2023
<b>Working Days:</b>	4		
<b>Rebate Days:</b>	0		
<b>Daily Cost:</b>	₹89/-	<b>Extras Cost:</b>	₹454/-
<b>Total:</b>	₹810/-		
From:	March 25, 2023	To:	March 31, 2023
<b>Working Days:</b>	7		
<b>Rebate Days:</b>	0		
<b>Daily Cost:</b>	₹89/-	<b>Extras Cost:</b>	₹0/-
<b>Total:</b>	₹623/-		

## 5. Extras: Tests related to extras from the extras section to the home section and the orders section of the resident's interface.

## Extras

Name: Vada Pav Price: ₹60/-

[Order](#)

## Extras

Name: chicken biryani Price: ₹90/-

Name: matar paneer Price: ₹40/-

Name: milk barfi Price: ₹16/-

Name: Biryani Price: ₹78/-

Name: Mango shake Price: ₹45/-

[Order](#)

**Name** : Mansi Singh  
**RollNo** : 100010  
**Extras** : ₹60/-  
**Dues** : ₹1950/-  
**Rebate Days** : 0

**Name** : Mansi  
**RollNo** : 100010  
**Extras** : ₹180/-  
**Dues** : ₹3092/-

## My Orders

Name: Paneer Bhujia Price: ₹35/- Quantity: 1

Total: ₹35/-

Name: Vada Pav Price: ₹60/- Quantity: 1

Total: ₹60/-

## My Orders

Name: chicken biryani Price: ₹90/- Quantity: 2 Status: cleared Code: 799380

Total: ₹180/-

Name: chicken biryani Price: ₹90/- Quantity: 2 Status: cleared Code: 412626

Name: milk barfi Price: ₹16/- Quantity: 1 Status: cleared Code: 677591

Name: Biryani Price: ₹78/- Quantity: 1 Status: cleared Code: 478396

Total: ₹274/-

Name: chicken biryani Price: ₹90/- Quantity: 2 Status: pending Code: 219674

Total: ₹180/-

Total:	₹292/-
Roll:	210279
● Name:	matar paneer Price: ₹40/- Quantity: 1 Status: pending
Name:	milk barfi Price: ₹16/- Quantity: 3 Status: cleared
Total:	₹88/-
Roll:	100010
Name:	chicken biryani Price: ₹90/- Quantity: 2 Status: cleared
Total:	₹180/-
Roll:	100010
Name:	chicken biryani Price: ₹90/- Quantity: 2 Status: cleared
Name:	milk barfi Price: ₹16/- Quantity: 1 Status: cleared
Name:	Biryani Price: ₹78/- Quantity: 1 Status: cleared
Total:	₹274/-
Roll:	100010
● Name:	chicken biryani Price: ₹90/- Quantity: 2 Status: pending
Total:	₹180/-
Roll:	100010
● Name:	matar paneer Price: ₹40/- Quantity: 2 Status: pending
Total:	₹80/-

IITK-Mess

Orders Complaints Rebate Approval Mess Menu Extras Access Account Logout

**CODE VERIFICATION**

Close
Submit

Roll:	210279
Name:	chicken biryani Price: ₹90/- Quantity: 1 Status: cleared
Name:	matar paneer Price: ₹40/- Quantity: 1 Status: cleared
Name:	milk barfi Price: ₹16/- Quantity: 2 Status: cleared
Total:	₹162/-
Roll:	210748
Name:	chicken biryani Price: ₹90/- Quantity: 2 Status: cleared
● Name:	matar paneer Price: ₹40/- Quantity: 2 Status: pending
Name:	milk barfi Price: ₹16/- Quantity: 2 Status: cleared
Total:	₹292/-
Roll:	210279
● Name:	matar paneer Price: ₹40/- Quantity: 1 Status: pending
Name:	milk barfi Price: ₹16/- Quantity: 3 Status: cleared
Total:	₹88/-
Roll:	100010

## NOTE

The code entered is incorrect. Please double-check and try again.

[Close](#)

Roll: 210279  
Name: chicken biryani Price: ₹90/- Quantity: 1 Status: cleared  
Name: matar paneer Price: ₹40/- Quantity: 1 Status: cleared  
Name: milk barfi Price: ₹16/- Quantity: 2 Status: cleared  
Total: ₹162/-

Roll: 210748  
Name: chicken biryani Price: ₹90/- Quantity: 2 Status: cleared  
● Name: matar paneer Price: ₹40/- Quantity: 2 Status: pending  
Name: milk barfi Price: ₹16/- Quantity: 2 Status: cleared  
Total: ₹292/-

Roll: 210279  
● Name: matar paneer Price: ₹40/- Quantity: 1 Status: pending  
Name: milk barfi Price: ₹16/- Quantity: 3 Status: cleared  
Total: ₹88/-

## CODE VERIFICATION

219674

[Close](#) [Submit](#)

Roll: 210279  
Name: chicken biryani Price: ₹90/- Quantity: 1 Status: cleared  
Name: matar paneer Price: ₹40/- Quantity: 1 Status: cleared  
Name: milk barfi Price: ₹16/- Quantity: 2 Status: cleared  
Total: ₹162/-

Roll: 210748  
Name: chicken biryani Price: ₹90/- Quantity: 2 Status: cleared  
● Name: matar paneer Price: ₹40/- Quantity: 2 Status: pending  
Name: milk barfi Price: ₹16/- Quantity: 2 Status: cleared  
Total: ₹292/-

Roll: 210279  
● Name: matar paneer Price: ₹40/- Quantity: 1 Status: pending  
Name: milk barfi Price: ₹16/- Quantity: 3 Status: cleared  
Total: ₹88/-

## NOTE

Code matches with the generated code. The status of the extra item has been successfully updated from 'pending' to 'cleared'.

[Close](#)

Roll: 210279  
Name: chicken biryani Price: ₹90/- Quantity: 2 Status: cleared  
Name: matar paneer Price: ₹40/- Quantity: 1 Status: cleared  
Name: milk barfi Price: ₹16/- Quantity: 2 Status: cleared  
Total: ₹162/-

Roll: 210748  
Name: chicken biryani Price: ₹90/- Quantity: 2 Status: cleared  
● Name: matar paneer Price: ₹40/- Quantity: 2 Status: pending  
Name: milk barfi Price: ₹16/- Quantity: 2 Status: cleared  
Total: ₹292/-

Roll: 210279  
● Name: matar paneer Price: ₹40/- Quantity: 1 Status: pending  
Name: milk barfi Price: ₹16/- Quantity: 3 Status: cleared  
Total: ₹88/-

Roll: 100010

Total: ₹292/-  
Roll: 210279  
● Name: matar paneer Price: ₹40/- Quantity: 1 Status: pending  
Name: milk barfi Price: ₹16/- Quantity: 3 Status: cleared  
Total: ₹88/-

Roll: 100010

Name: chicken biryani Price: ₹90/- Quantity: 2 Status: cleared

Total: ₹180/-

Roll: 100010

Name: chicken biryani Price: ₹90/- Quantity: 2 Status: cleared

Name: milk barfi Price: ₹16/- Quantity: 1 Status: cleared

Name: Biryani Price: ₹78/- Quantity: 1 Status: cleared

Total: ₹274/-

Roll: 100010

Name: chicken biryani Price: ₹90/- Quantity: 2 Status: cleared

Total: ₹180/-

Roll: 100010

● Name: matar paneer Price: ₹40/- Quantity: 2 Status: pending

Total: ₹80/-

## 6. Dues: Tests related to viewing dues from resident to manager and dues paid from manager to resident

Starting date  
 [Calendar icon]

Ending Date  
 [Calendar icon]

Daily Cost

Submit

**Update dues**

100010  1950/- Update

IITK-Mess

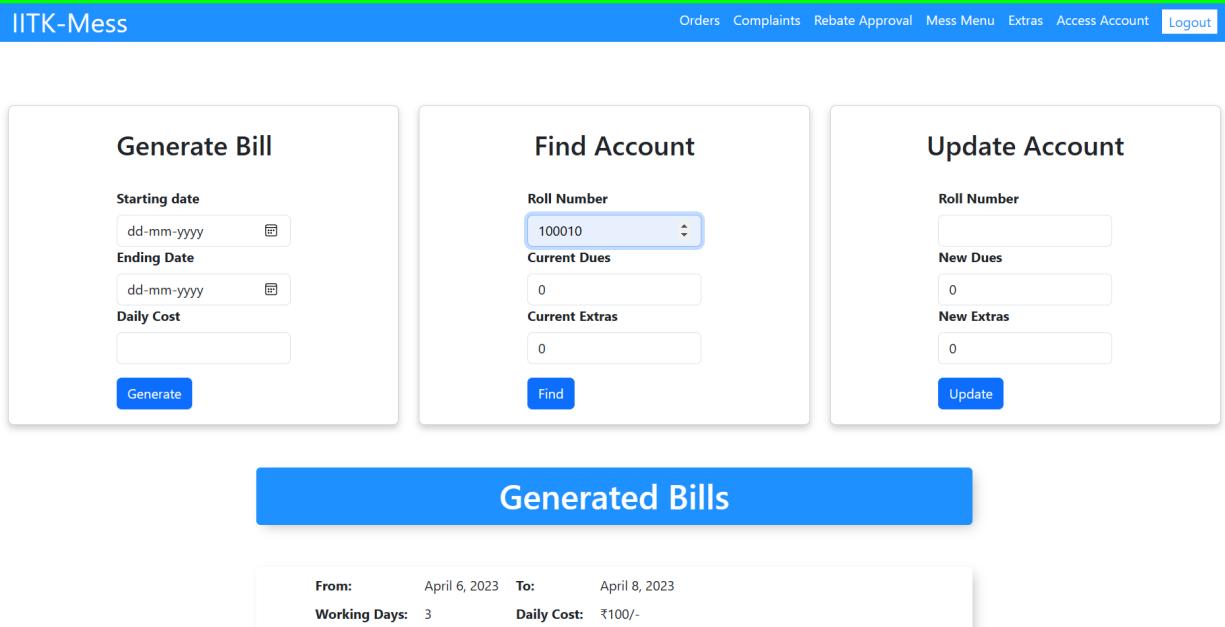
Home Orders Complain Apply For Rebate Mess Menu Extras Mess-Bill Logout

Name : Mansi Singh  
RollNo : 100010  
Extras : ₹0/-  
Dues : ₹1950/-  
Rebate Days : 0

**Name** : Mansi Singh  
**RollNo** : 100010  
**Extras** : ₹60/-  
**Dues** : ₹0/-  
**Rebate Days** : 0

**Additional Comments:** Manager can easily update the dues of a student.

**7. Find Account** - Manager can access the account details of residents by entering roll no.



The screenshot shows the IITK-Mess application interface with a blue header bar containing the logo and navigation links: Home, Orders, Complain, Apply For Rebate, Mess Menu, Extras, Mess-Bill, and Logout.

The main content area is divided into three panels:

- Generate Bill:** Contains fields for Starting date (dd-mm-yyyy), Ending Date (dd-mm-yyyy), Daily Cost, and a Generate button.
- Find Account:** Contains a Roll Number dropdown set to "100010", Current Dues input field (0), Current Extras input field (0), and a Find button.
- Update Account:** Contains fields for Roll Number, New Dues, New Extras, and an Update button.

A large blue banner at the bottom center displays the text "Generated Bills". Below this banner, there is a summary table with the following data:

From:	April 6, 2023	To:	April 8, 2023
Working Days:	3	Daily Cost:	₹100/-

**IITK-Mess**

Orders Complaints Rebate Approval Mess Menu Extras Access Account Logout

### Generate Bill

Starting date  Ending Date  Daily Cost   
**Generate**

### NOTE

Please enter new dues and new extras dues in the Update Account section to update this account.

### Find

Current Dues  Current Extras   
**Find**

### Update Account

Roll Number  New Dues  New Extras   
**Update**

### Generated Bills

From: April 6, 2023 To: April 8, 2023  
Working Days: 3 Daily Cost: ₹100/-

**IITK-Mess**

Orders Complaints Rebate Approval Mess Menu Extras Access Account Logout

### Generate Bill

Starting date  Ending Date  Daily Cost   
**Generate**

### Find Account

Roll Number  Current Dues  Current Extras   
**Find**

### Update Account

Roll Number  New Dues  New Extras   
**Update**

### Generated Bills

From: April 6, 2023 To: April 8, 2023  
Working Days: 3 Daily Cost: ₹100/-

**Name** : Mansi  
**RollNo** : 100010  
**Extras** : ₹260/-  
**Dues** : ₹3092/-

**Additional Comments:** Manager can easily access and update the dues of a student.

# Software User Manual

The following changes have been done in the user manual. Sections are also listed in which the changes have been made. Only those lines of the paragraph are shown where there is a change, either deletion (highlighted in red) or addition(highlighted in green)

## 4.3.1 Home page Tab

They can see their Name, RollNo, Total amount of Extra(s) if they ordered or else zero(0), Dues and **Rebate Days**.

## 5.2 Orders

Upon delivery of the order to the student, the manager can update the status by removing it from the orders list, provided they have confirmed the code assigned to the order during booking.

## 5.3 Complaints

After crafting a response, they can click on the "**Send**" button to send the reply directly to the student who filed the complaint.

## 5.4 Rebate Requests

Students who are approved for Rebate Requests are available under the Rebate Requests tab and the Manager can approve the requests by clicking on the "+" "✓" button . As soon as a request is approved, the request will disappear from the list.The manager can remove the request by clicking "X" .

## 5.5 Generate bill

Additionally, the manager can update student dues by entering the student's roll number and the amount of dues paid, and then clicking the "+" **update**" button to automatically reflect the updated information.

## 5.6 Extras

Within this tab, the manager can perform two additional functions:

- **Add Extras:** The manager can add additional items or services to the bill by entering the name and price of the extra item, and then clicking on the "+" **Add**" button. **Remove Extras:** If the manager needs to remove an extra item or service from a student's bill, they can do so by clicking on the "-" **Remove**" button.

## 5.7 Mess menu

By entering the name and clicking the "**Add**" button, the selected item will be added to the mess menu. Similarly, clicking the "**Remove**" button will remove the item from the mess menu and automatically update all student accounts accordingly.