DBMS Project Phase-3 Final Report

Project Topic: <u>HOSTEL MESS MANAGEMENT SYSTEM</u>

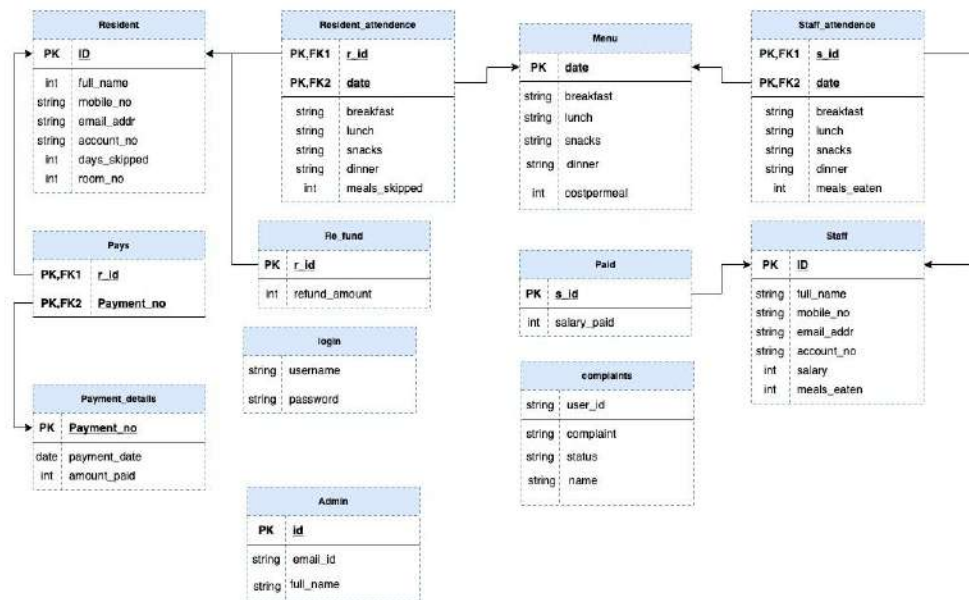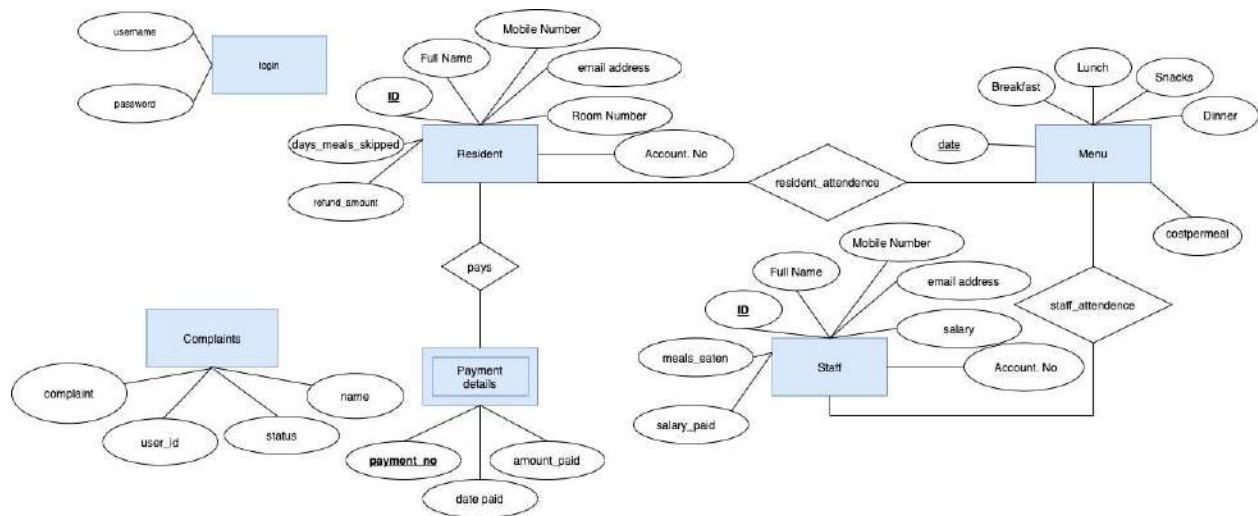<u>Group members:</u>
- Srishti Suman (180010035)
- M. Raghavi Reddy (180010022)
- Singamaneni Meghana (180010034)

1. <u>INTRODUCTION:</u>

This is a web application used to manage daily mess attendance and the mess management. Objective of the system is to provide a user friendly daily attendance system that is easy to manage, maintain and query. Our primary focus is to develop a paperless system that provides the management a way to facilitate smoother functioning of the mess system. We intend to reduce the work of mess managers who still maintain all the logs in registers and files. It would be of great benefit as all complex calculations are done within seconds and bills are generated on the single click of a button. As the name suggests, it is an application for maintaining any hostel mess but it also enables handling of the information related to the residents/employees who are a part of the organization.

2. <u>IMPLEMENTATION OVERVIEW:</u>

<u>Module diagram and DB diagram</u>:

ER Diagram (top)

login: username, password

Resident: ID, Full Name, Mobile Number, email address, Room Number, Account. No, days_meals_skipped, refund_amount

Menu: Breakfast, Lunch, Snacks, Dinner, date, costpermeal

resident_attendance

pays

Complaints: complaint, user_id, status, name

Payment details: payment_no, amount_paid, date paid

Staff: ID, Full Name, Mobile Number, email address, salary, Account. No, meals_eaten, salary_paid

staff_attendence

Relational Schema (bottom)

Resident
PK	ID
int	full_name
string	mobile_no
string	email_addr
string	account_no
int	days_skipped
int	room_no

Resident_attendence
PK,FK1	r_id
PK,FK2	date
string	breakfast
string	lunch
string	snacks
string	dinner
int	meals_skipped

Menu
PK	date
string	breakfast
string	lunch
string	snacks
string	dinner
int	costpermeal

Staff_attendence
PK,FK1	s_id
PK,FK2	date
string	breakfast
string	lunch
string	snacks
string	dinner
int	meals_eaten

Pays
PK,FK1	r_id
PK,FK2	Payment_no

Re_fund
PK	r_id
int	refund_amount

Paid
PK	s_id
int	salary_paid

Staff
PK	ID
string	full_name
string	mobile_no
string	email_addr
string	account_no
int	salary
int	meals_eaten

Payment_details
PK	Payment_no
date	payment_date
int	amount_paid

login
string	username
string	password

complaints
string	user_id
string	complaint
string	status
string	name

Admin
PK	id
string	email_id
string	full_name

3. DATA USED FOR EXECUTION:

Page Name	Contents Displayed	Database data used	Actual data
login.jsp	Login Form	-	
R_dashboard.jsp, staff_dashboard.jsp, admin_dashboard.jsp	Options	-	
pd_residentServlet.java, pd_staffSerServlet.java	Options & details	Data from resident and staff tables(id, name, mobile number, email address, account number, room number/salary)	Resident table:insert into resident values('R1','9451676215','gcd@gmail.com',39749540,2,'prasanna'); Staff table: insert into staff values('S1','8234579292','keke@gmail.com',265798423 ,9500 ,'suresh');
Menu.jsp	Options & menu display	Data from menu table(Breakfast, lunch, Snacks, dinner)	Menu table: insert into menu values(0,'poha,banana',20,'rice,dal,curd',30,'maggi',10,'rice,cabbage fry,curd',30);
AttServlet.java, StaffRpServlet.java	Options & report display	Data from resident_att and staff_att tables(r_id/s_id, on_date/date, number of meals skipped/eaten and num. Of days absented in that day/number of meals eaten in that month)	Residence_att table: insert into resident_att values('R1','2014-01-22','yes','yes','no','yes',1); Staff_att table: insert into staff_att values('S1','2014-01-01','yes','yes','yes','yes',4);
PaymentdtServlet.java, NetSalaryServlet.java	Options & payment_details for resident/net salary details for	Data from resident_payment_details, staff and staff_att(net salary of	Resident_payment_details table: insert into resident_payment_deta

		staff	staff and payment_no, r_id, ayment_date, amount_paid for residents)	ils(r_id,payment_date,amount_paid) values('R1','2014-02-01',500); Staff table : insert into staff values('S1','8234579292','keke@gmail.com',265798423 ,9500 ,'suresh'); Staff_att table: insert into staff_att values('S1','2014-01-01','yes','yes','yes','yes',4);
complaints.jsp, complaints_status.jsp	Options & box for writing complaints & complaint status display.	Data from complaints table.	Complaints table: insert into complaint('R1','Raju','Food is too salty!!',null);
Resident_att_update.jsp ResidentAttendanceUpdateServlet Updated.jsp	Updates the attendance of resident and displays success message	-	-
Staff_att_update.jsp Staff Attendance Update Servlet	Updates the attendance of staff and displays success message	-	-
MessBill.jsp	Displays the net amount paid to the staff and net payment made by the residents to the mess and their difference which is net mess bill	Data from tables resident_payment_details, refund, paid, staff_att.	resident_payment_details: insert into resident_payment_details(r_id,payment_date,amount_paid) values('R1','2014-02-01',500); refund: insert into refund(r_id,refund_amount) values('R1',190); paid: insert into paid values('S1','2014-02-10',10000); Staff_att: insert into staff_att values('S1','2014-01-01','ye

			s','yes','yes','yes',4);
ResidentRefundServlet Updated.jsp	Inserts the calculated refunds (if there are any) into the refund table for residents.	Data from refund, residance_att tables.	Refund: insert into refund(r_id,refund_am ount) values('R1',190); residance_att insert into resident_att values('R1','2014-01-22','ye s','yes','no','yes',1);
SeeComplaints.jsp	Shows the complaints written by the residents and staff to the admin	Data from complaints table.	Complaints : insert into complaint('R1','Raju','Food is too salty!!',null);
MarkComplaints.jsp MarkComplaintServlet Updated.jsp	After resolving the complaints the admin will update the status values in complaints table	Data from complaints table.	Complaints : insert into complaint('R1','Raju','Food is too salty!!',null);
AddResident.jsp AddResidentServlet Added.jsp	Adds a resident to the database(insert) and it also adds the new resident to the login table where the password is given by the admin(he has a option to change password)	Data from resident, login tables.	resident: insert into resident values('R1','9451676215','gc d@gmail.com',39749540, 2,'prasanna'); Login: insert into login values('R1','raju');
AddStaff.jsp AddStaffServlet Added.jsp	Adds a staff to the database(insert) and it also adds the new staff to the login table where the password is given by the admin(he has a option to change password)	Data from staff, login tables.	Staff: insert into staff values('S1','8234579292' ,'keke@gmail.com',26579 8423 ,9500 ,'suresh'); Login: insert into login values('R1','raju');
AddAdmin.jsp AddAdminServlet	Adds a admin to the database(insert)	Data from admin, login tables.	Admin: insert into admin

Added.jsp	and it also adds the new admin to the login table where the password is given by the admin(he has a option to change password)		values('A1','cake@gmail.com','Chandra Mohan'); Login: insert into login values('R1','raju');
netsalarystaffmembers.jsp	Displays the net salary given to each staff member	Data from staff_att, paid tables.	Staff_att: insert into staff_att values('S1','2014-01-01','yes','yes','yes','yes',4); Paid: insert into paid values('S1','2014-02-10',10000);
menuUpdate.jsp menupServlet Updated.jsp	Updates the menu table	Data from menu table.	Menu: insert into menu values(0,'poha,banana',20,'rice,dal,curd',30,'maggi',10,'rice,cabbage fry,curd',30);
Change.jsp ChangeServlet Updated.java	Updates the password in the login table for a given user	Data from login table.	Login: insert into login values('R1','raju');

4. <u>CONCLUSION:</u>

This small database management project can help in managing a mess system. It gives all important facilities to residents(who are consuming meals), staff(members who are working at mess and consume meals as well) and admin. Objective of the system is to provide a user friendly daily attendance system that is easy to manage, maintain and query and this has been achieved here.In this way we are reducing the work of mess managers(here they are admins) who still maintain all the logs in registers and files. This is indeed a benefit as all complex calculations are done within seconds and bills are generated on the single click of a button.

Screenshots:
Login Page
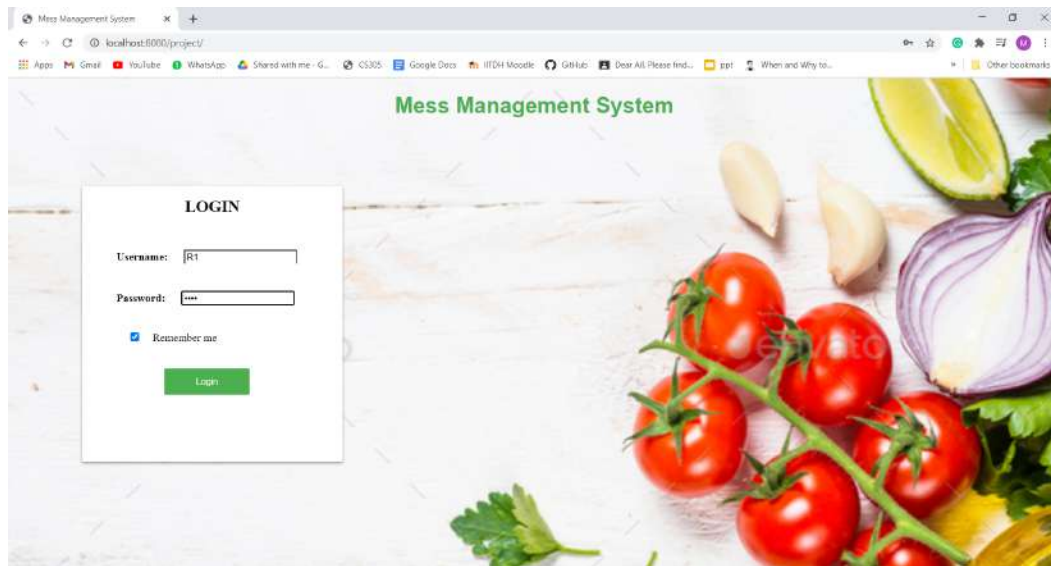
Resident pages
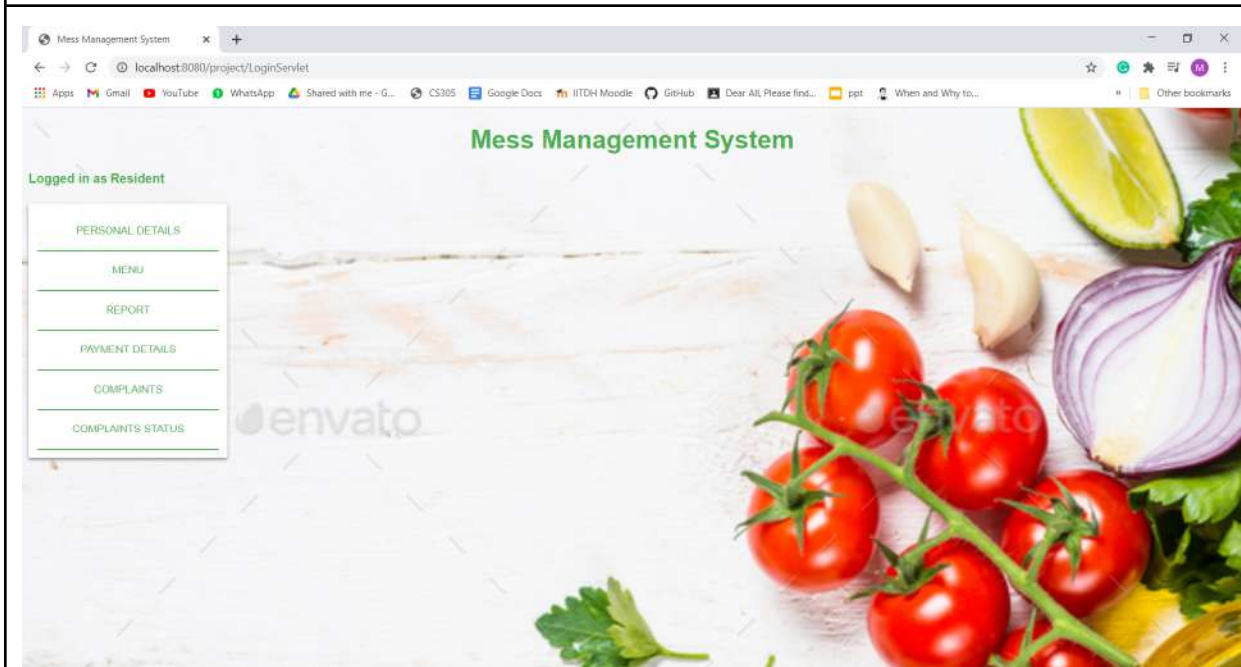
Mess Management System

Screen 1 — pd_residentServlet

PERSONAL DETAILS		
MENU		
REPORT		
PAYMENT DETAILS		
COMPLAINTS		
COMPLAINTS STATUS		

id	R1
mobile no.	9451676215
email_id	gcd@gmail.com
acc_no	39749540
room no.	2
Full name	prasanna

Screen 2 — AttServlet

Mess Management System

| PERSONAL DETAILS |
| MENU |
| REPORT |
| PAYMENT DETAILS |
| COMPLAINTS |
| COMPLAINTS STATUS |

Number of days resident visited mess in this month are: 31
Number of days resident did not visit mess:0

ID	Date	Number of meals skipped
R1	2014-01-01	1
R1	2014-01-02	0
R1	2014-01-03	1
R1	2014-01-04	1
R1	2014-01-05	2
R1	2014-01-06	3
R1	2014-01-07	3
R1	2014-01-08	2
R1	2014-01-09	3
R1	2014-01-10	2
R1	2014-01-11	1
R1	2014-01-12	0
R1	2014-01-13	1
R1	2014-01-14	2
R1	2014-01-15	3
R1	2014-01-16	2

← → C   ① localhost:8080/project/PaymentdtServlet?

Mess Management System

	payment_no	r_id	payment_date	amount_paid
PERSONAL DETAILS	1	R1	2014-02-01	500
MENU	2	R1	2014-03-01	450
REPORT				
PAYMENT DETAILS				
COMPLAINTS				
COMPLAINTS STATUS				

← → C   ① localhost:8080/project/Menu.jsp?

Mess Management System
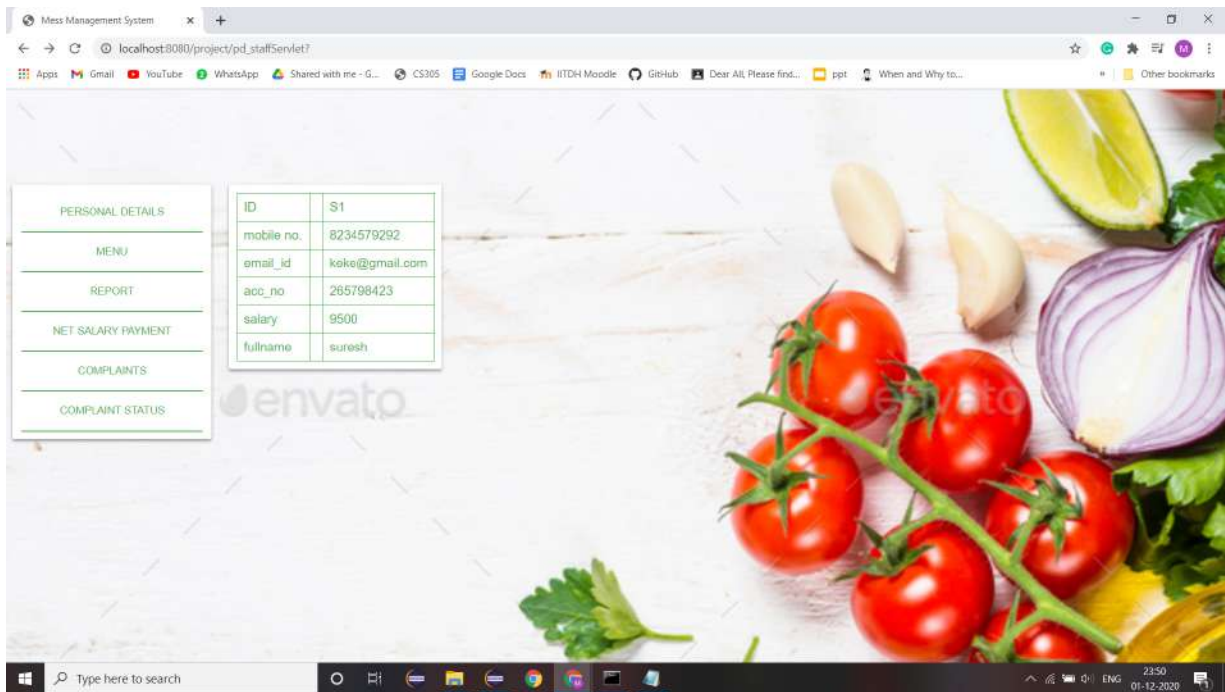
Mess menu:

Day	Breakfast	Lunch	Snacks	Dinner
Sunday	poha,banana	rice,dal,curd	maggi	rice,cabbage fry,curd
Monday	roti,curry	rice,bhendi fry,curd	vadapav	Lemon rice,curd,roti
Tuesday	idli,chutney	Banana,rice,curd	Watermelon	rice,dal,curd
Wednesday	dosa,chutney	rice,cabbage fry,curd	Banana,	rice,bhendi fry,curd
Thursday	vada,chutney	gherkins curry,rice,curd	Mixture	Potato fry,rice,curd
Friday	savai upma,mixture	Potato fry,rice,curd	maggi	Banana,rice,curd
Saturday	puri,potato curry	Lemon rice,curd,roti	pavbaji	gherkins curry,rice,curd
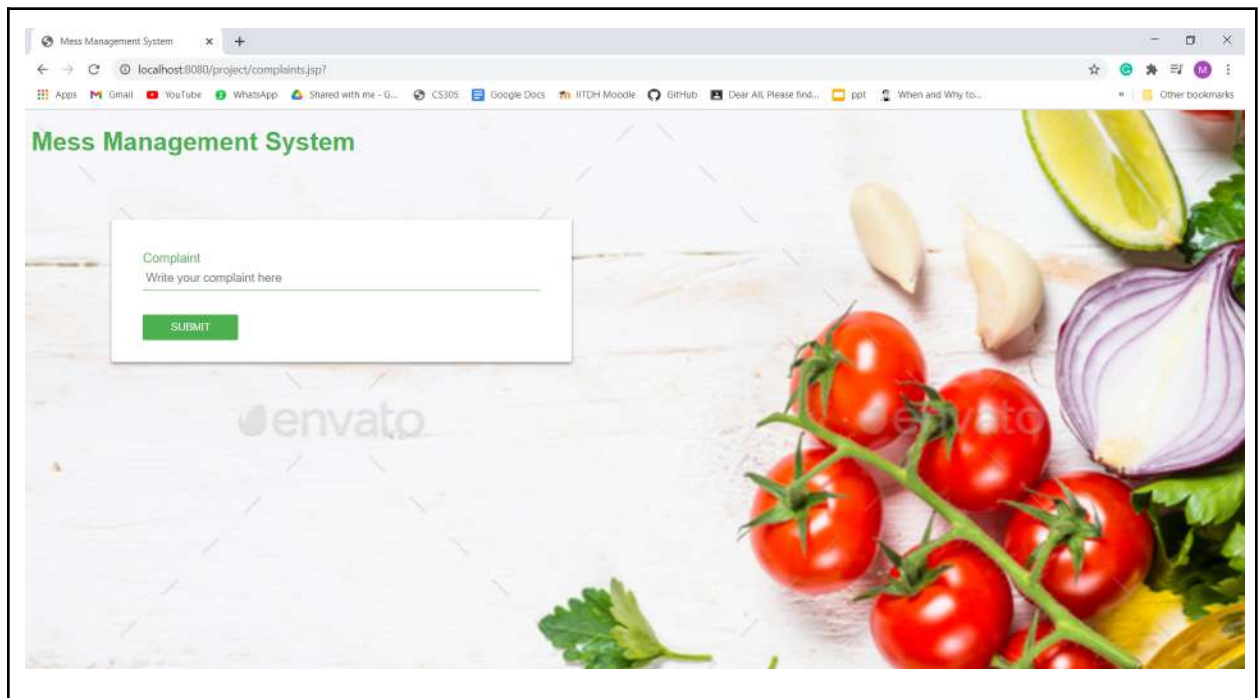
Staff members pages

Staff details:

Mess Management System

r_id	Net_Salary
S1	9300

PERSONAL DETAILS

MENU

REPORT

PAYMENT DETAILS

COMPLAINTS

COMPLAINTS STATUS

Admin Pages

LOGGED IN AS ADMIN:

UPDATE ATTENDANCE FOR RESIDENTS

UPDATE ATTENDANCE FOR STAFFS

NET MESS BILL

HANDLE REFUNDS

VIEW TO RESOLVE THE COMPLAINTS

MARK A COMPLAINT AS RESOLVED

ADD A RESIDENT

ADD A STAFF MEMBER

ADD AN ADMIN

NET SALARY OF STAFFMEMBERS

UPDATE MENU

CHANGE PASSWORD

Update the attendance!!!

Resident ID   R3

Date   2014-02-01

Breakfast   no

Lunch   yes

Snacks   yes

Dinner   no

Meals Skipped today   2

Submit

Update the attendance!!!

Staff ID   S7

Date   2014-02-01

Breakfast   yes

Lunch   no

Snacks   no

Dinner   no

Meals Had today   3

Submit

Give the id of the user whose complaint has been solved to mark it as RESOLVED!!

USER ID:

Submit

Please fill the below to add the resident!!

Resident ID

Mobile Number

Email ID

Account Number

Room Number

Full Name

Password

Submit

Please fill the below to add the staff!!

Staff ID

Mobile Number

Email ID

Account Number

Salary

Full Name

Password

Submit

Please fill the below to add the admin!!

Admin ID [＿＿＿＿＿＿＿＿＿]
Email ID [＿＿＿＿＿＿＿＿＿]
Full Name [＿＿＿＿＿＿＿＿]
[Submit]

Net salary of staff members

Staff ID	Net Salary
S1	9800
S2	9840
S3	9880
S4	9920
S5	9900
S6	9840
S7	9980
S8	9960
S9	9940

Mess Bill:

Monthly Mess Bill

Net Mess Bill = 28220
Net Salary Paid = 27540
Net Payment paid by Residents = 55760

Update Menu

Day

Breakfast

Lunch

Snacks

Dinner

Cost Per meal

Submit