Dairy Management System

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DBIS Course Project

Overview:

This project is a dashboard which manages all the queries that arise in managing a Dairy Farm. We have 5 categories of **users**:

1) Admin
2) Head of Centers
3) Sellers
4) Staff members
5) Buyers

The admin has the supreme privilege to add, edit and remove other users.
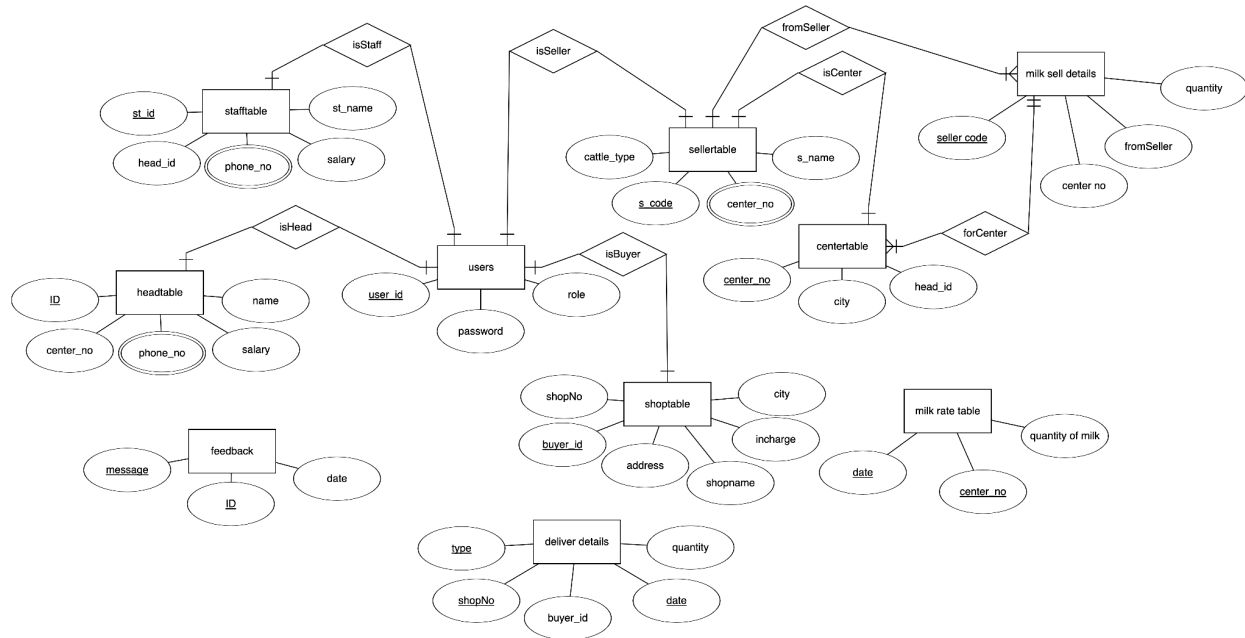
The Head of the center has the power to manage it's center.

Sellers could provide the details for their milk, and from where they purchase.

Staff members are the people working at the centers.

Buyers order milk from the farm.

ER Model:

Integrity Constraints:

- *role* attribute in tables *users*, feedback can only take values (*'Buyer','Seller', 'Head','Staff','Admin'*)
- *cattle_type* attribute in tables sellertable, dairy_milk_sell_table can only take values (*'cow', 'buffalo'*)
- *type* attribute in deliver_milk_details can only take values (*'cow', 'buffalo'*)
- *head_ID* attribute in tables sellertable, *stafftable* references ID column in *headtable*
- *ID* column in *headtable* references user_id in users
- *head_id* attribute in table *centertable* references ID column in *headtable*

Relational Database Design and Database Schema:

There are 10 tables in our database. Each table corresponds to the entity in our ER model. Relationships are established using foreign keys in the table. Primary keys are underlined.

1) *users (user_id,password,role)*
2) *feedback (feedback,role,name,ID,Date)*
3) *milk_rate_table (Date,center_no,city,quantity_cow_milk,quantity_buffalo_milk,fat_cow_milk,fat_buffalo_milk)*

4) *dairy_milk_sell_table (user_ID,s_code,fat,quantity,cattle_type,submit_date,center_no) : Primary Key is (user_ID, cattle_type, submit_date)*

5) *sellertable (s_code,user_id,s_name,center_no,cattle_type,r_date,head_ID)*

6) *stafftable (st_ID, st_name, salary, phone_no, head_ID)*

7) *headtable (ID, name, salary, phone_no, center_no)*

8) *centertable (center_no,city,head_id)*

9) *deliver_milk_details (shop_no,fat,quantity,type,Date, buyer_id,). Primary Key is: (shop_no, Date,type).*

10) *shoptable (shopNo, city, incharge, shop_name, address,buyer_id)*

Languages and Technologies used:

JDBC with MySQL is used. The project is developed in Eclipse IDE. Apache Tomcat server v9 is used to run the project.

Interface Design:

Internal Cascading is used in formatting the webpages. As for the UI, required forms were created for users to login and insert/add/delete various records for all the tables in the database. When a user submits a form, pages have been created to specify the success/failure for the form submissions as required.

Workflow and Pages:

There are primarily 2 folders that contain the project. (Rest of the files are added by Eclipse IDE itself that are required to run the project)

1) **Java Files:** These are the .java files that execute the required operation on the local MySQL database or fetch the information from the same. These are our back-end files. We have the following Servlet Files:
   - *addCenter*
   - *addHead*
   - *addSeller*
   - *addShop*
   - *addStaff*
   - *buyerServlet*
   - *deleteHead*
   - *deleteSeller*
   - *deleteStaff*

- *feedbackServlet*
- *headaddSeller*
- *headaddStaff*
- *headdeleteSeller*
- *headdeleteStaff*
- *headMilkRate*
- *headServlet*
- *issueServlet*
- *LoginServlet*
- *passwordServlet*
- *sellerServlet*
- *staff_DailyMilk*
- *staffaddseller*
- *staffdeleteseller*
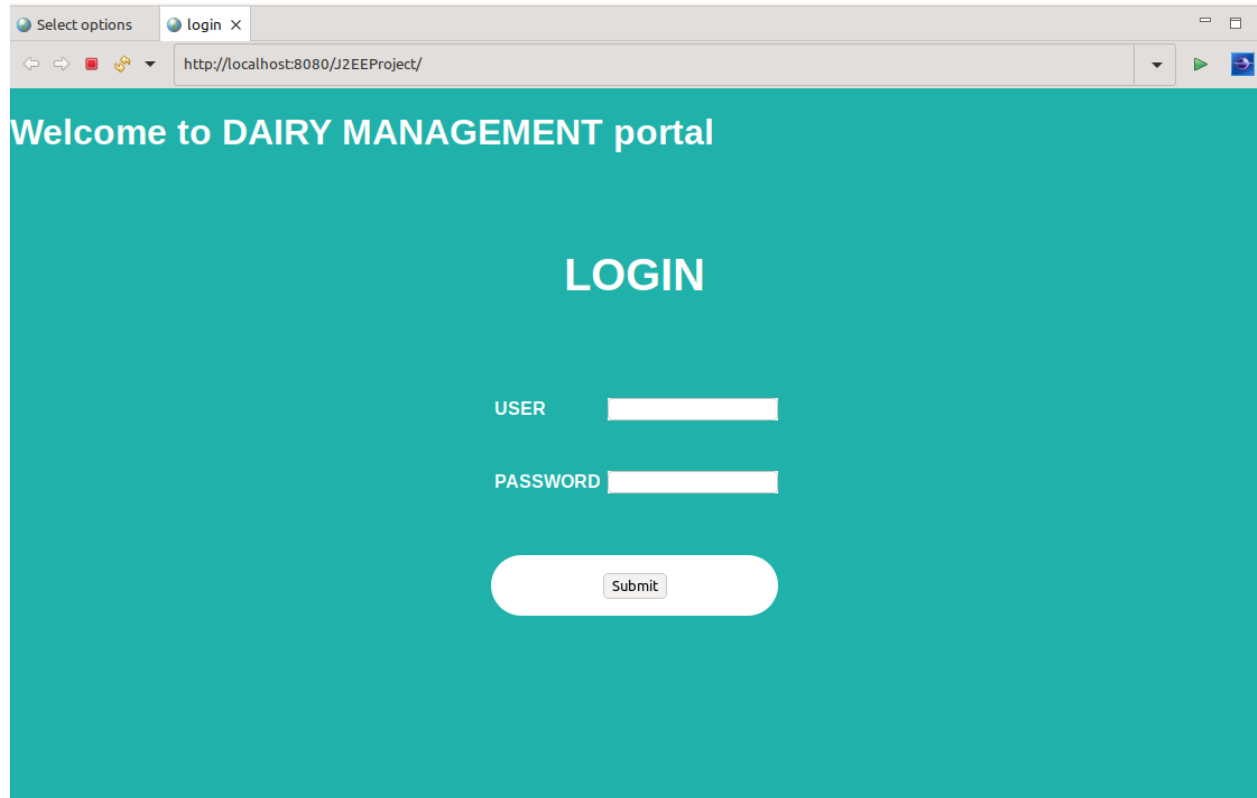- *staffServlet*
- *updatePass*

2) **JSP Files:** These are my front-end files which display the content on the web page. They are linked with java files to fetch or send the information to the local database.
   - *addcenter*
   - *Added*
   - *addhead*
   - *addResult*
   - *addseller*
   - *addshop*
   - *addstaff*
   - *adminDashboard*
   - *adminManageBuyer*
   - *adminManageHead*
   - *adminManageStaff*
   - *adminManageSeller*
   - *bill*
   - *buyer*
   - *buyerBill*
   - *BuyerDashboard*
   - *buyerDetails*

- *Deleted*
- *deletehead*
- *deleteseller*
- *deleteshop*
- *deletestaff*
- *deliver_Milk_Data*
- *feedback_form*
- *feedback*
- *headaddseller*
- *headaddstaff*
- *headDashboard*
- *headdeleteseller*
- *headdeletestaff*
- *headDetails*
- *headManageMilkRate*
- *headManageSeller*
- *headManageStaff*
- *headviewseller*
- *headviewstaff*
- *home*
- *issueResult*
- *receipt*
- *sell_Milk_Data*
- *sellerDashboard*
- *sellerDetails*
- *sellerReceipt*
- *staffaddseller*
- *staffDashboard*
- *staffdeleteseller*
- *staffDetails*
- *staffManageDailyMilk*
- *staffManageSeller*
- *Staffviewseller*
- *updatepassord*
- *viewcenter*
- *viewhead*
- *viewseller*

- *viewshop*
- *viewstaff*
- *viewMilkRate*

Screenshots of the Project:

Home Page

Admin Login Dashboard

Centers

center no	city	head id
2332	Kanpur	190010017
8821	Kanpur	4555
8822	Hyderabad	4556

View of all Centers to Admin

Dairy Management System

Head Details

center no	2332
city	Kanpur
head id	2222

Submit

Adding a new center

Added successfully!!

Added new center successfully
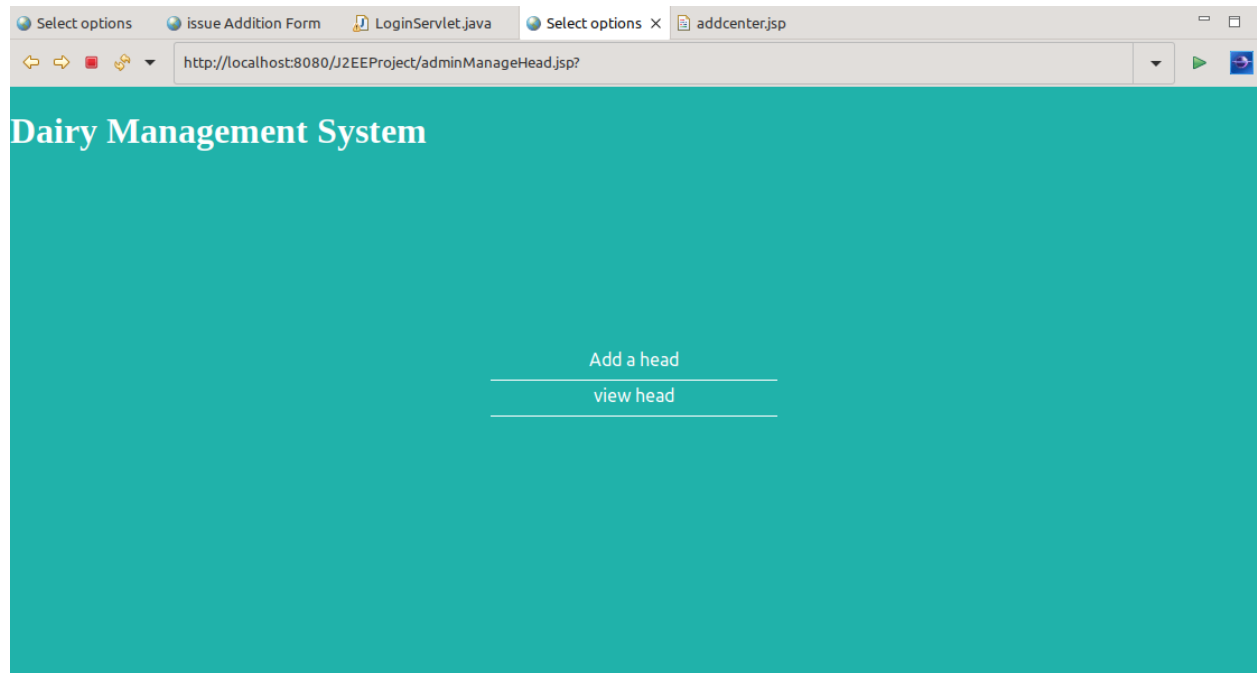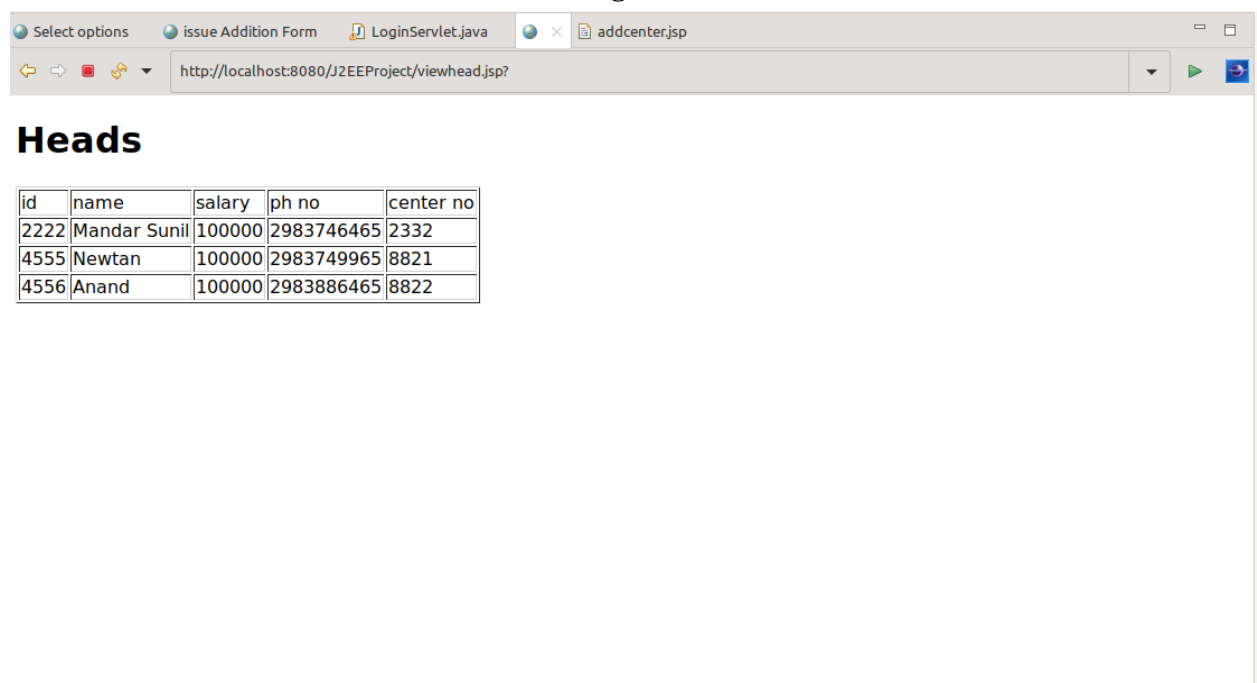
Dairy Management System

Add a head

view head

Manage Head

Heads

id	name	salary	ph no	center no
2222	Mandar Sunil	100000	2983746465	2332
4555	Newtan	100000	2983749965	8821
4556	Anand	100000	2983886465	8822

View Head

http://localhost:8080/J2EEProject/addhead.jsp?

Dairy Management System

Head Details

Id	4551
name	Harish
Salary	10000
phone no	464684
center no	2124

Submit

Add New Head

http://localhost:8080/J2EEProject/addHead

Added successfully!!

Added New Head Successfully

http://localhost:8080/J2EEProject/adminManageStaff.jsp?

Dairy Management System

Add staff

view staff

delete staff
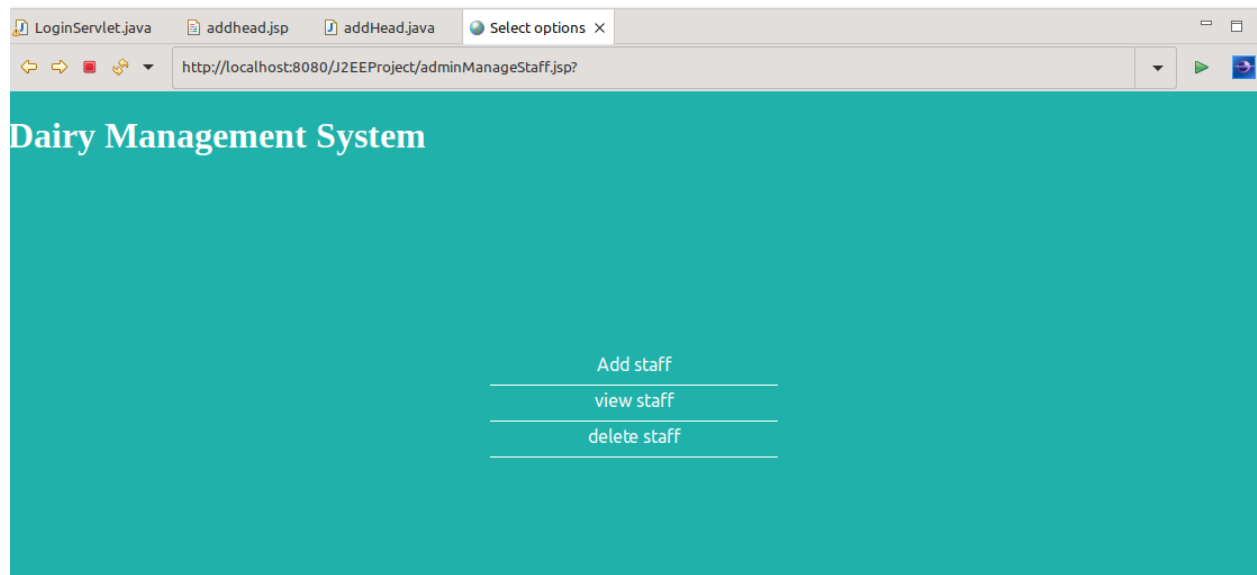
Manage Staff by Admin

All staff

id	name	salary	ph no	head no
1118	Neville	100000	3209494493	2222
4557	Gopal	100000	2309494493	4555
4558	Narayan	100000	5609494493	4556
4559	Shilpa	100000	7709494493	4555
4560	Gnani	100000	9009494493	4556

View all Staff members

Dairy Management System

Staff Details

Id	1246
name	Akshay
Salary	120
phone no	4741547
head no	2222

Submit

Add New Staff member

http://localhost:8080/J2EEProject/addStaff
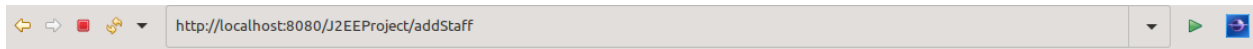
Added successfully!!

Added Staff member successfully

http://localhost:8080/J2EEProject/deletestaff.jsp?

DELETE STAFF

STAFF Id 1246

NAME Akshay

Submit

Delete Staff member

http://localhost:8080/J2EEProject/deleteStaff
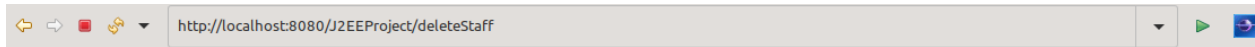
Deleted successfully!!

Deleted Staff Successfully

LoginServlet.java   addhead.jsp   addHead.java   Select options ×

http://localhost:8080/J2EEProject/adminManageSeller.jsp?
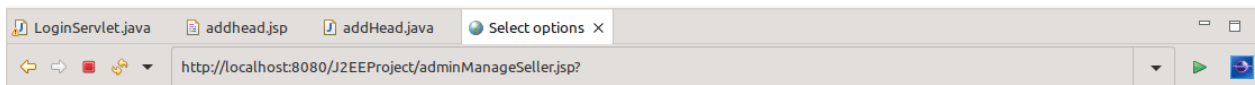
DAIRY MANAGEMENT portal
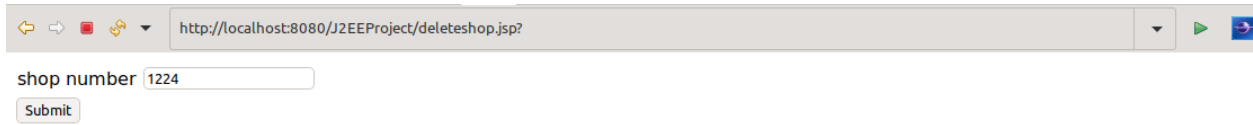
Add a seller

view seller

delete seller

Manage Seller

Welcome to DAIRY MANAGEMENT portal

Manage Buyer

Add a buyer

view buyer

delete buyer

Manage Buyer

All shops

shopNo	city	incharge	shop name	address	buyer_id
4561	Hyderabad	Kaveri	Amul	100 Ft road	6781
4562	Kanpur	Rahul	Mishra Pedha	Jubilee Circle	6782
4563	Hyderabad	Harsha	Sankappa	100 Ft road	6783
4564	Hyderabad	Ram	Gokul Milk	100 Ft road	6784
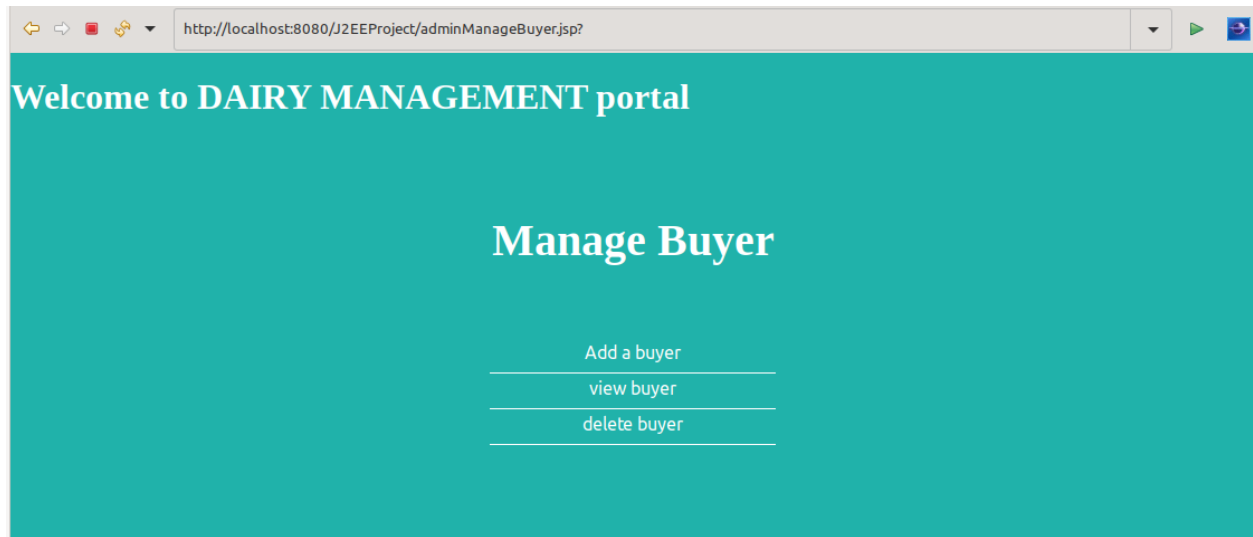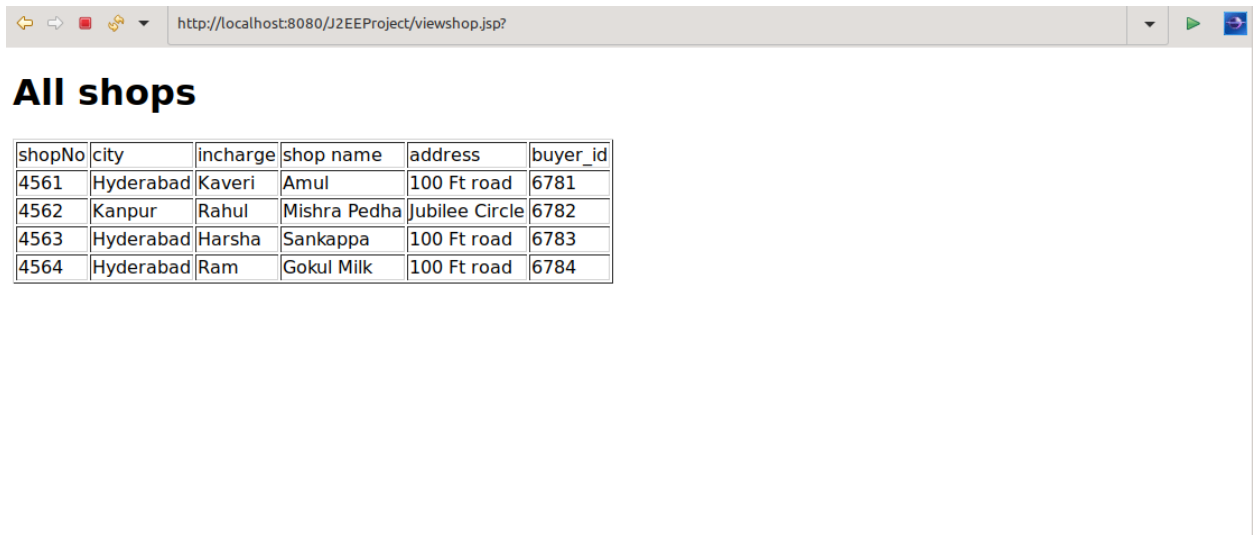
View all shops

Added successfully!!
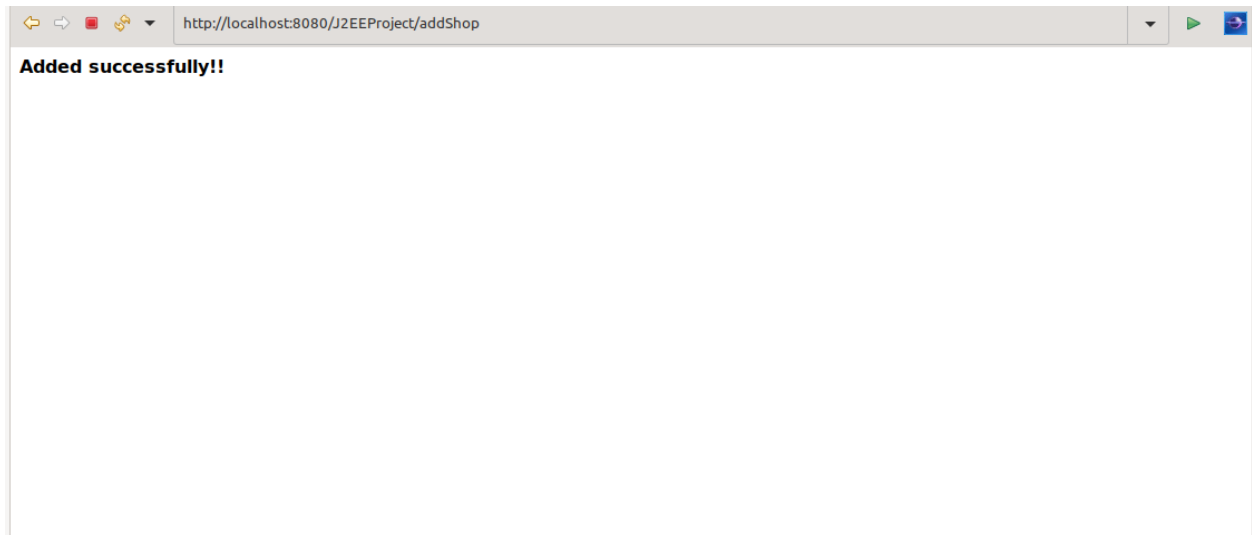
Added new buyer successfully

ADD SHOP

shop number	1224
city	Dharwad
incharge	2222
shop name	Malabar
address	Near RotiGhar
buyer id	1245

Submit

Add a new shop

shop number 1224

Submit

Delete a shop

Deleted successfully!!

Deleted Shop Successfully

Sellers

code	id	name	cattle type	reg date
4551	1190	Jessi	cow	2021-10-21
4552	1191	Havmore	buffalo	2021-10-22
4553	1192	Arun	cow	2021-10-04
4554	1193	Vijaya	buffalo	2021-10-10
9889	yamete	AyushGupta	cow	2020-11-27

View all sellers

Seller Details

code	007
id	1454
name	Ajay
center number	2124
cattle type	cow
reg date	2020-12-12
head_no	2222

Submit

Add new seller

http://localhost:8080/J2EEProject/addSeller

Added successfully!!

Added Seller successfully

http://localhost:8080/J2EEProject/deleteseller.jsp?
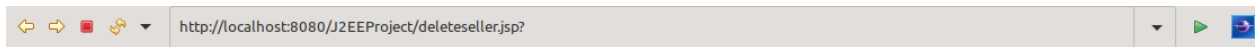
DAIRY MANAGEMENT portal

DELETE SELLER

Seller ID 1454

Submit

Delete a seller

Deleted a seller successfully

Conclusion:

A dashboard with users of different categories was created which allowed them to perform different levels of actions on each other.