Dharmsinh Desai University, Nadiad

Faculty of Technology

Department of Computer Engineering

B. Tech. CE Semester - 4

Subject - Software Enginearing & Practices

Project Title

DAIRY MANAGEMENT

Chovatiya Kaushal K.(CE021)

Gajera Jenil (CE032)

INDEX

Introduction/Project Abstract

It is proposed to develop a software that would be use by every customer and Private Dairy Farms to manage their bills and manage accounts of milk in “Liters” and “Total” of bill amounts.The following is an information description of the requirements of this software as worked out by the marketing department.

A person who is either customer or owner of dairy both have to write daily accounts of milk in terms of liters.They also have to write date price and how many liters the customer took over on that day.All this date,price,liters can be written by customers or by owner of that dairy farm.If they write in physical card then there is some chances to loss that data or that card may be torn.They can write their date,price,how many liters of milk did the customer take on that day.In this software both customer and owner of dairy can enter the values described as above and this software keeps that data for

Software Requirement Specification

1. Login/Password :

R.1.1-Registeration

Description: A customer/worker have to register first. After registration data is entered correctly and based on registered mobile number confirmation message should be displayed with customer_id/worker_id and password

Input: Customer/Worker have to enter his/her details like name, mobile number, address, city name.

Output: Confirmation message with customer_id/ worker_id, password.

R.1.2-Login

Input: Customer_id/Worker_id and password

Output: Details of Customer/Worker.

2. Customer Management:

R.2.1-Update Customer Detail

Description: Worker can update customer details like mobile number, address, etc. If customer want to update his/her information then he/she will inform to worker.

Input: Changes needed

Output: Updated details with confirmation message of changes.

R.2.2-Display Customer details

Input: Customer_id

Output: Information of customer

R.2.3-Delete Customer Record

Description: Delete record of inactive customers

Input: Customer_id

Output: Confirmation message

3. Worker Management:

R.3.1-Update Worker Detail

Description: Owner can update Worker details like Salarymobile number, address, etc. If worker want to update his/her data then he/she can contact to the owner.

Input: Changes needed

Output: Updated details with confirmation message of changes.

R.3.2-Display Worker details

Input: Worker_id

Output: Information of Worker

R.3.3-Delete Worker Record

Description: Delete record of fired worker.

Input: Worker_id

Output: Confirmation message

4. Product Management:

R.4.1-Add Product

Input: Name of Product, Price, Expiry-date

Output: Confirmation message

R.4.2-Update Product

Description: Price and stock can be upadate

Input: Product Name

Output: Confirmation message

R.4.3-Delete Product

Input: Product Name

Output: Confirmation message

R.4.4-Display Product

Input: Product Name

Output: List containing details of each product

5. Inventory Management:

R.5.1-Add stock

Description: Worker can add stock(MILK) which is delivered by the supplier to dairy.

Input: Number of liters

Output: Display updated stock in terms of liters.

R.5.2-Delete stock.

4. Product Management:

R.4.1-Add Product

Input: Name of Product, Price, Expiry-date

Output: Confirmation message

R.4.2-Update Product

Description: Price and stock can be upadate

Input: Product Name

Output: Confirmation message

R.4.3-Delete Product

Input: Product Name

Output: Confirmation message

R.4.4-Display Product

Input: Product Name

Output: List containing details of each product

5. Inventory Management:

R.5.1-Add stock

Description: Worker can add stock(MILK) which is delivered by the supplier to dairy.

Input: Number of liters

Output: Display updated stock in terms of liters.

R.5.2-Delete stock.

Description: Worker can delete stock of milk which is taken by customer.

Input: Number of liters

Output: Display updated stock in terms of liters.

R.5.3-Display the stock

Input: User selection

Output: Display current stock of milk in terms of liter.

6. Manage Statistics:

R.6.1-Display Bill

Description: It displays the list of amount of bill of each customer generated at end of month. Owner can select this option.

Input: User selection

Output: List of amount of bill of each customer

R.6.2-Send reminder of bill

Description: System will send bill reminder SMS to each customer.

Input: Selection

Output: Message sent

R.6.3-Display amount invested

Description: The total amount invested in the dairy.

Input: User Selection

Output: Total amount invested.

R.6.4-Display Salary Status

Description: This option displays the status of salary of each worker whether it is paid or pending

Input: User Selection

Output: Display list of status of salary.

R.6.5-Display bill of supplier

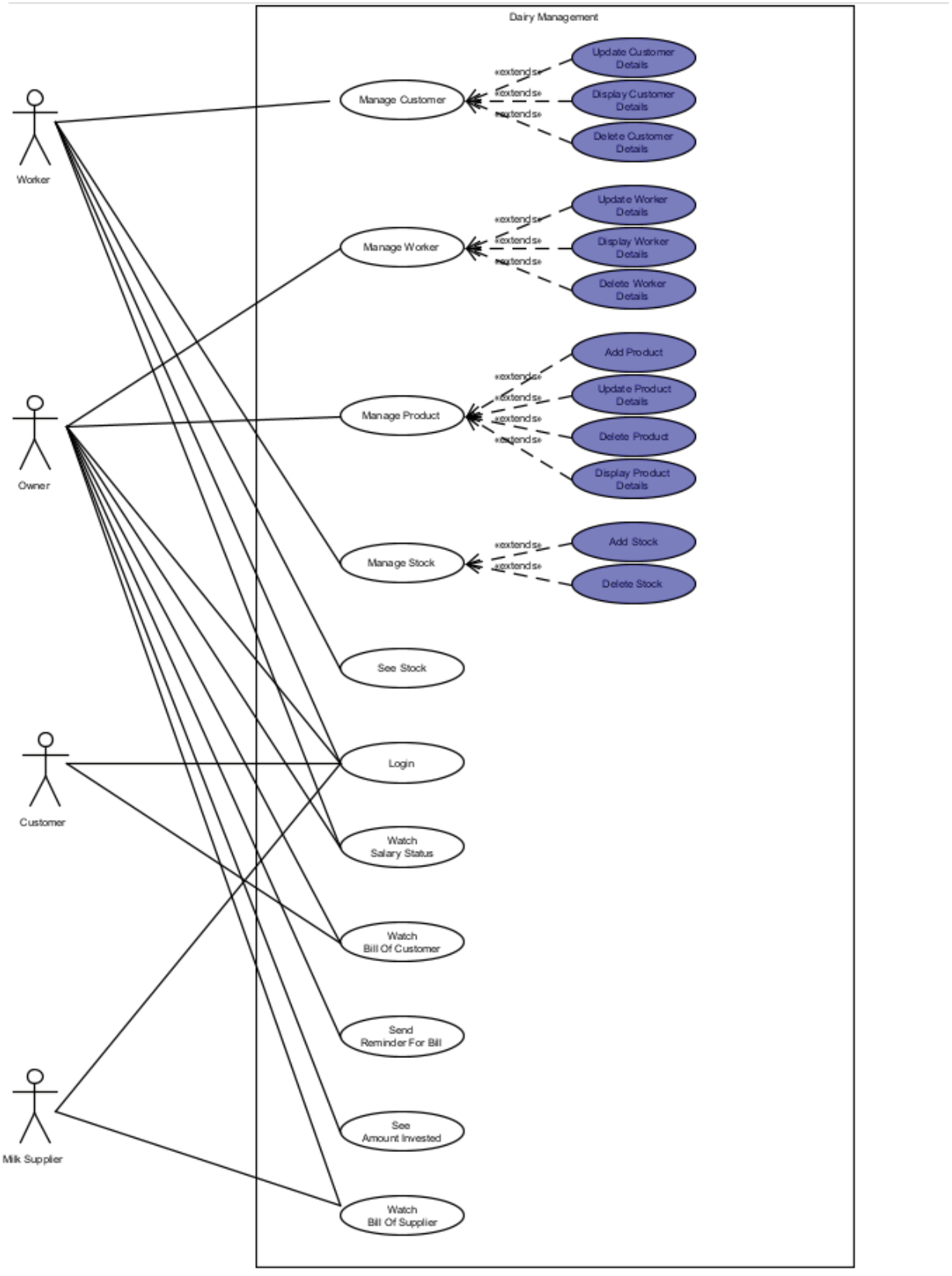
Description: Display amount of bill which we have to pay to milk supplier.

Input: User Selection

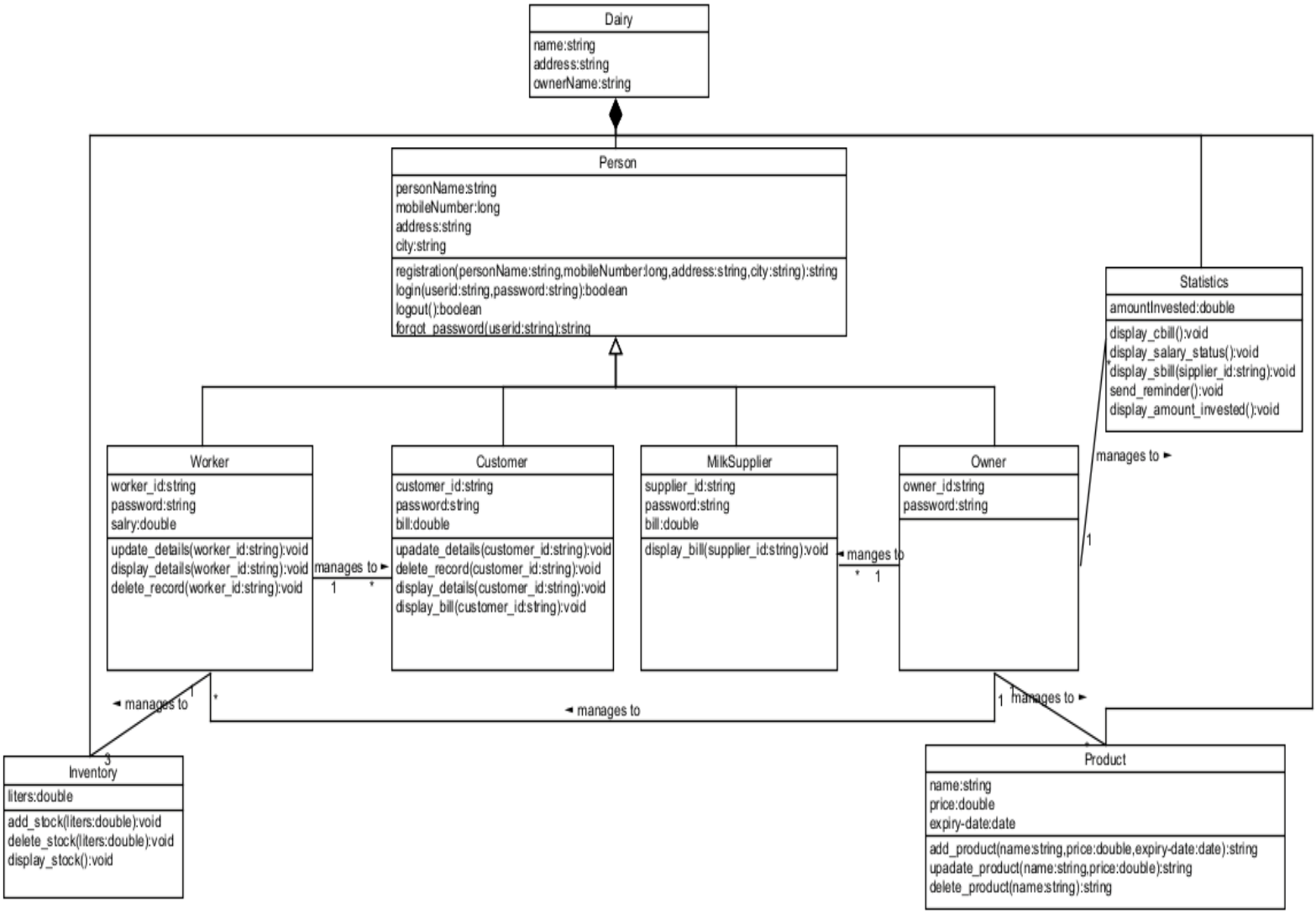
Output: Display bill of supplier.

Design Documents

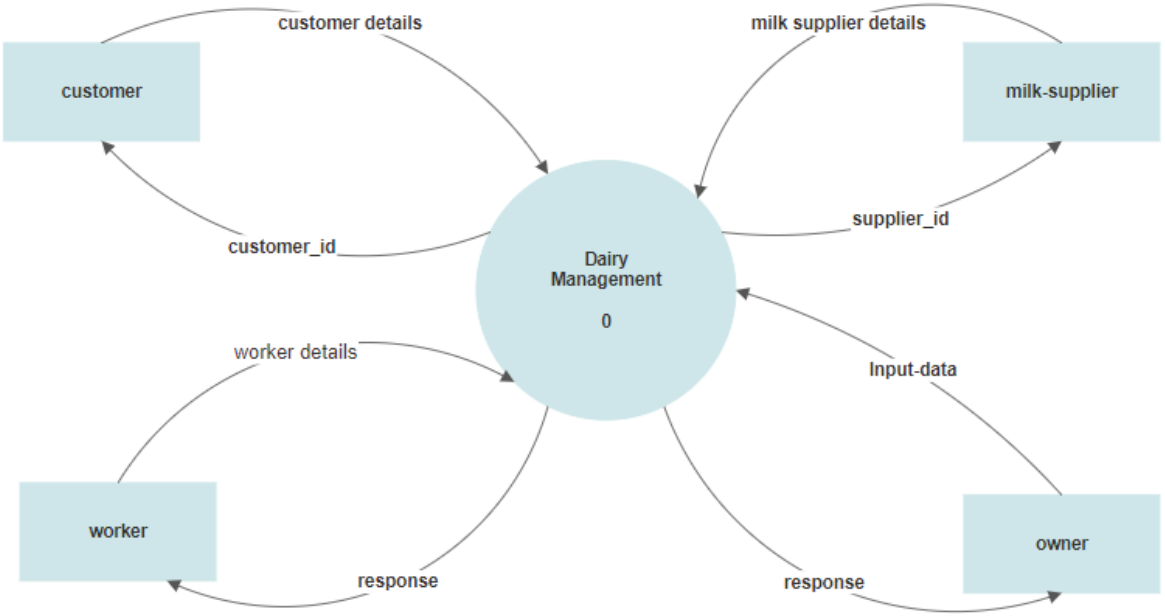
Use Case Diagram:



Class Diagram:

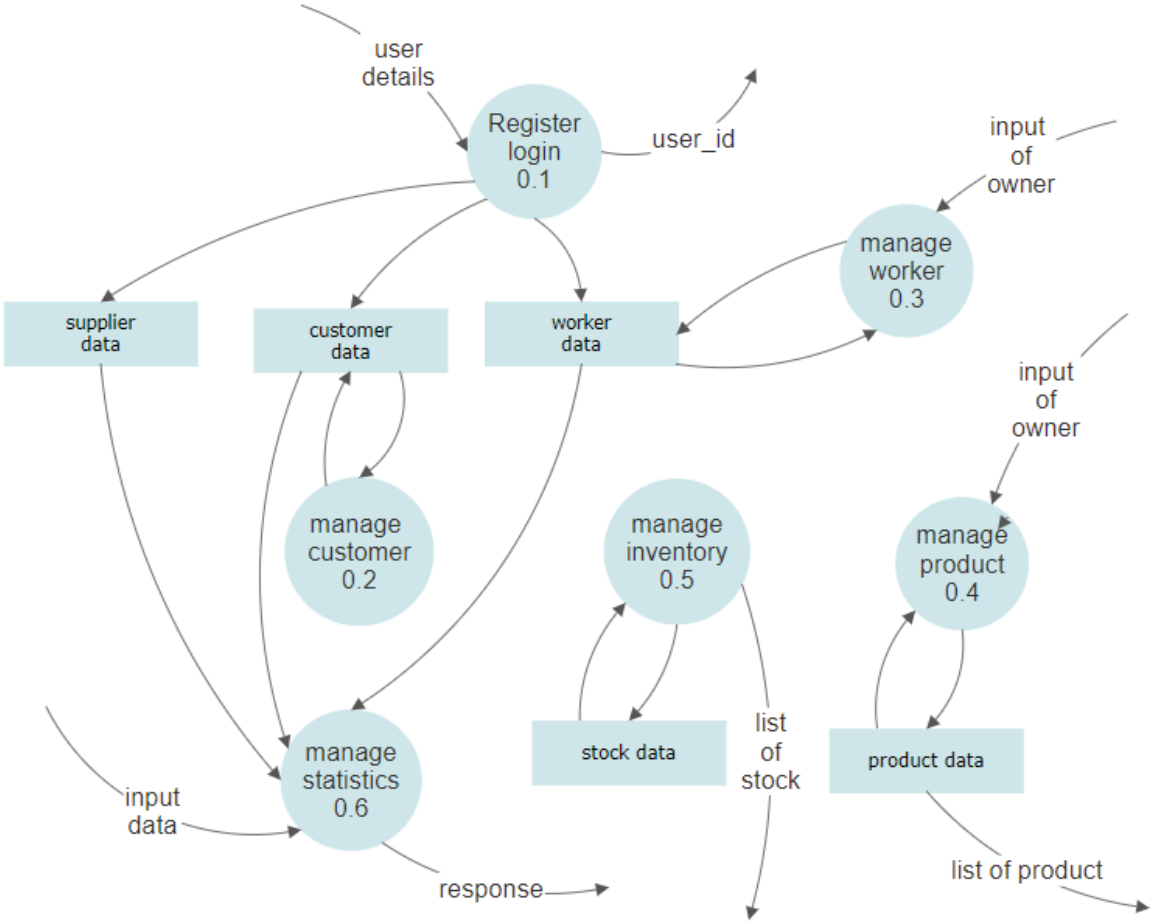


DFD Model:

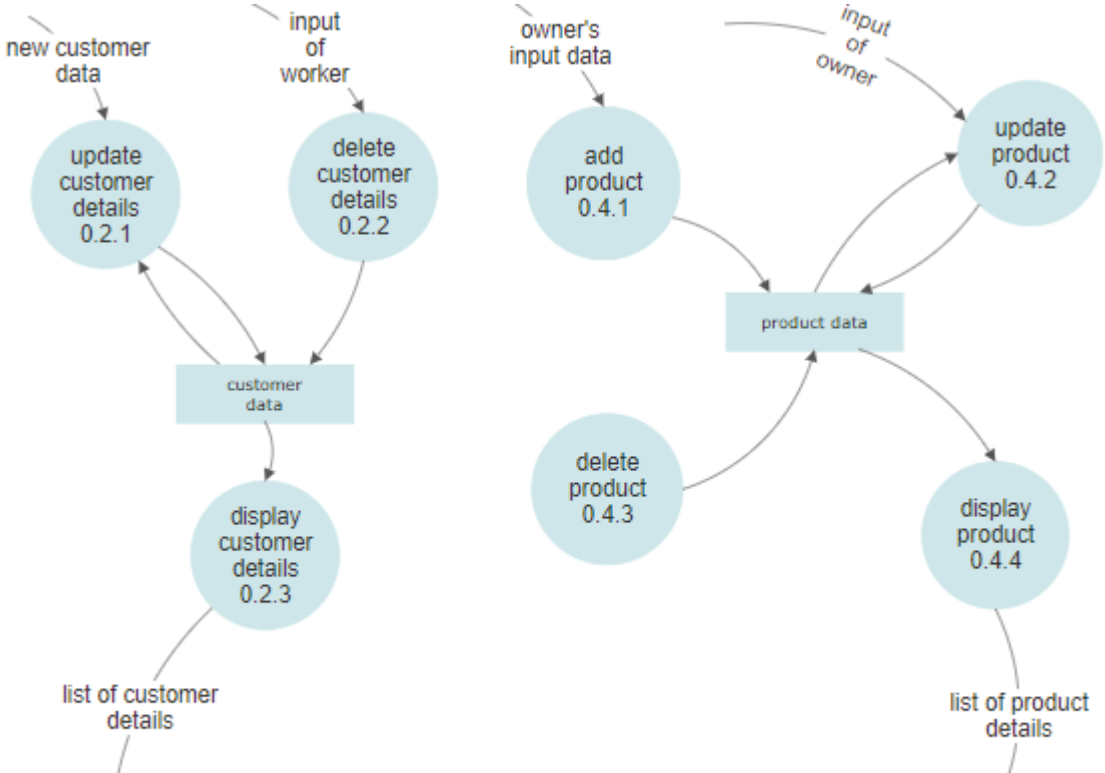


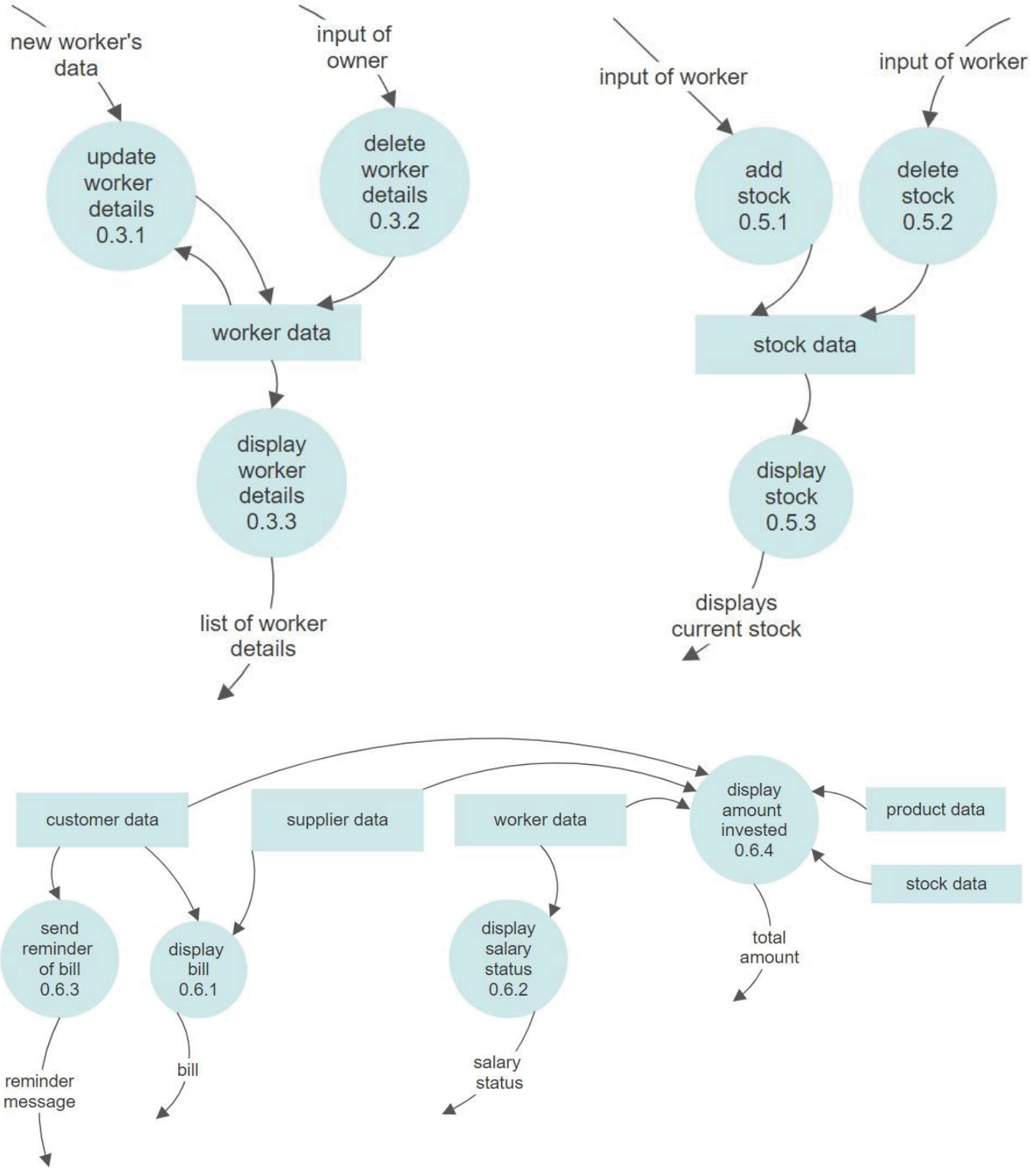
Context Diagram

Level 1

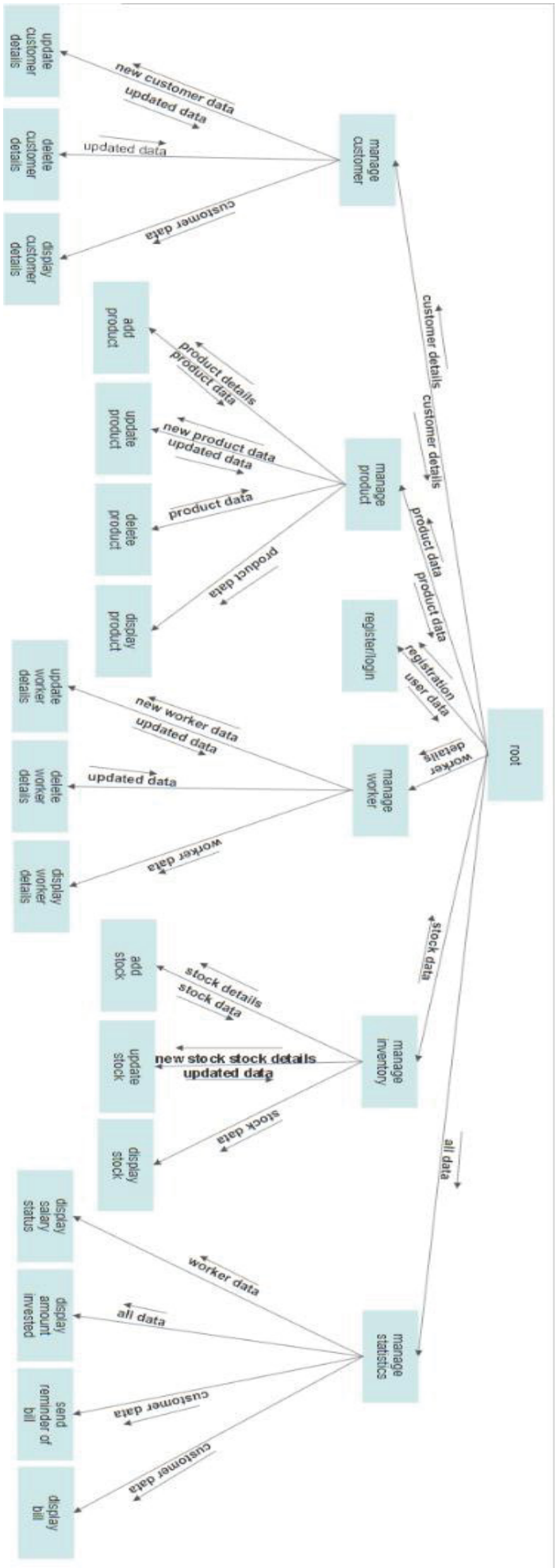


Level 2




new worker's data
input of owner
update worker details 0.3.1
delete worker details 0.3.2
worker data
display worker details 0.3.3
list of worker details
input of worker
input of worker
add stock 0.5.1
delete stock 0.5.2
stock data
display stock 0.5.3
displays current stock
customer data
supplier data
worker data
display amount invested 0.6.4
product data
stock data
send reminder of bill 0.6.3
display bill 0.6.1
display salary status 0.6.2
total amount
reminder message
bill
salary status

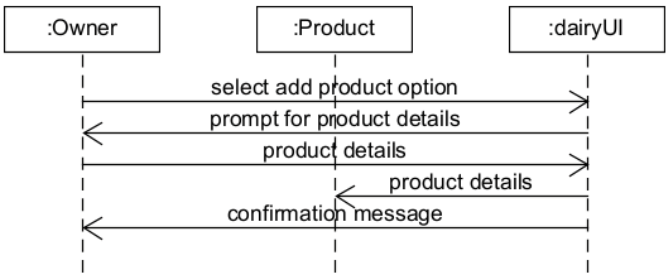
Structure chart



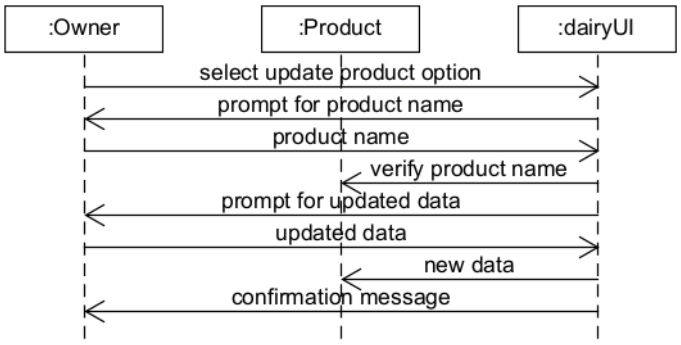
Sequence diagrams

▶ For Manage Product UseCase:

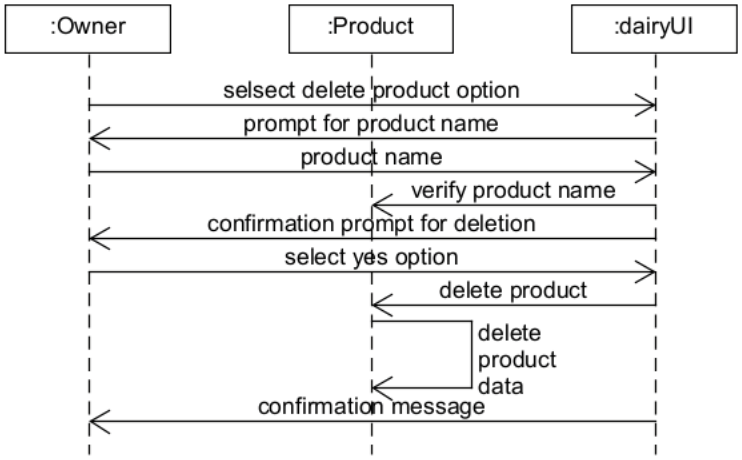
- Add product:



- Update product:

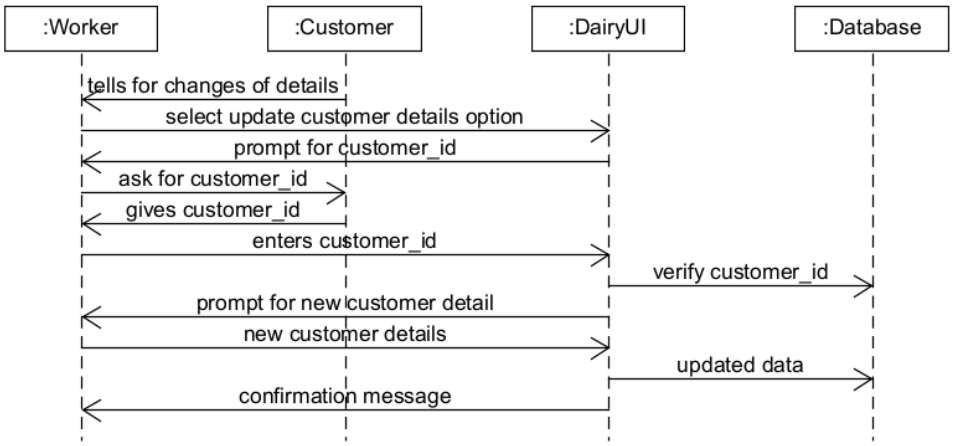


- Delete product:

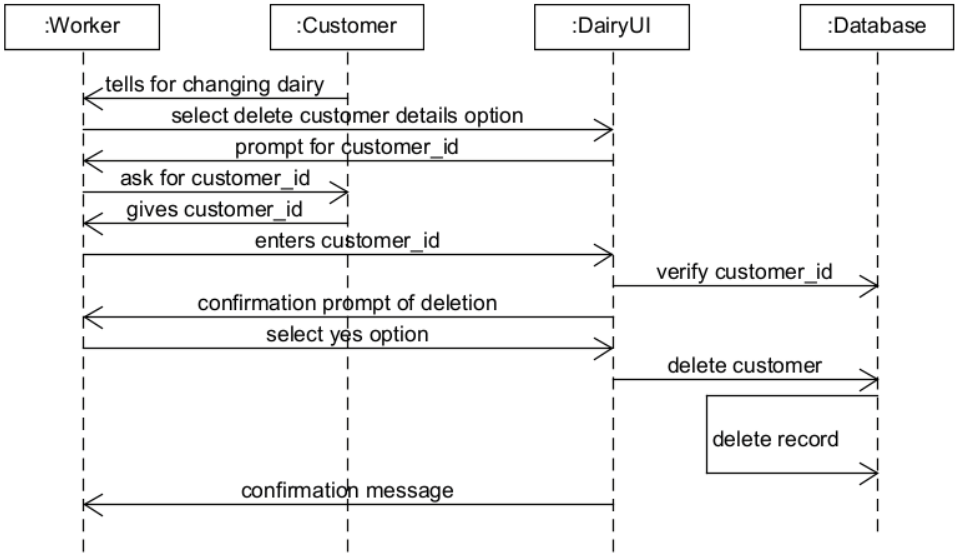


▶ For ManageCustomerUseCase:

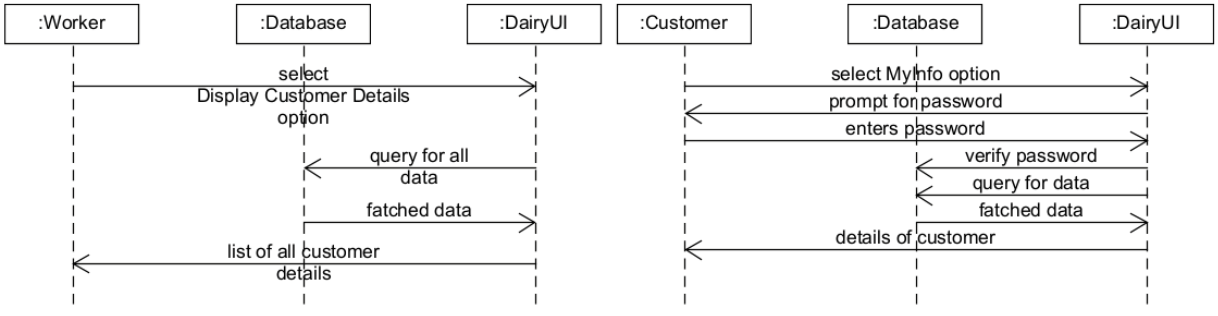
- Update Customer Details:



- Delete Customer Details:

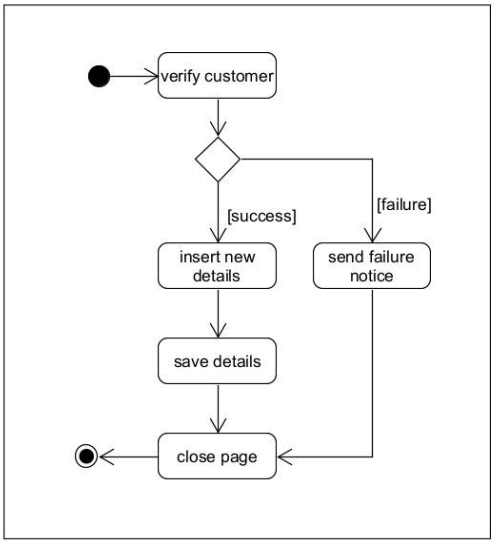


- Display Customer Details:

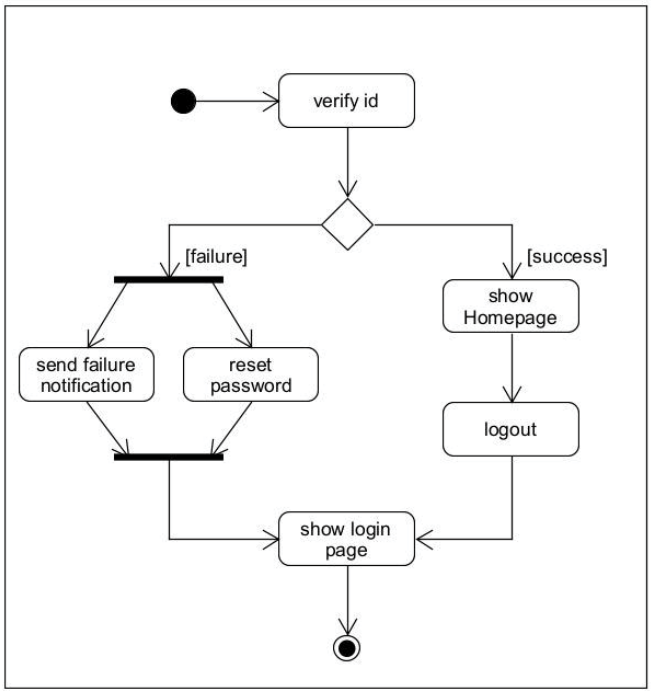


Activity diagrams

- Update Customer Details:



- Login:



Implements Details

- **Register Module:**

  In Register Module Customers and Admin User can register themselves.If Customer is registering then He/She have to mention rate of milk that they are going to buy from that dairy on regular basis. In this register module if user tries to register themselves with existing username then it will give error message.

```
<?php
    require_once ("connection.php");
    if (isset ($_SESSION["is_login"]) &&$_SESSION['is_login'] == true)
    {
        header ("Location: index.php");
    }

?>
<?php
    if (isset ($_REQUEST['message']))
    {
        echo $_REQUEST["message"];
    }
?>

<html>
    <head>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>My Dairy</title>
        <link rel="stylesheet" href="style.css">
    </head>
    <body>
        <header>
            <h4> Registration </h4>
            <hr>
        </header>
        <main>
            <form action="" method="POST">
                <lable>Name:</lable>
                <input type="text" name="name" required />
                <lable>Username:</lable>
                <input type="text" name="username" required />
                <lable>Enter Password:</lable>
```

```
                <input type="password" name="password" required/>
                <lable>Email:</lable>
                <input type="email" name="email" required/>
                <lable>Mobile:</lable>
                <input type="text" name="mobile" required/>
                <lable>Address:</lable>
                <input type="text" name="address" required/>
                <p>
                    Role:
                    <lable>
                        <input type="radio" name="role" id="admin" value="0" />
                        Admin
                    </lable>
                    <lable>
                        <input type="radio" name="role" id="user" value="1" />
                        User
                    </lable>
                </p>
                <lable>Rate:</lable>
                <input type="number" name="rate" required/>
                <input type="submit" name="submit" value="Register"/>
                Or
                <a href="login.php">Login</a>
            </form>
        <main>
        <footer>
            <?php
                try
                {
                    if(isset($_POST['submit']))
                    {
                        $name=$_POST["name"];
                        $username=$_POST["username"];
                        $password=$_POST["password"];
                        $email=$_POST["email"];
                        $mobile=$_POST["mobile"];
                        $address=$_POST["address"];
                        $role=$_POST["role"];
                        $rate=$_POST["rate"];
                        $stmt = $dbhandler->prepare("
                                                SELECT * FROM table_user
                                                WHERE username=:username
                                                LIMIT 1
                        ");
                        $stmt->bindParam(':username', $username);
                        $stmt->execute();
                        $row = $stmt->fetch();
                        if($row)
                        {
                            header("Location: registration.php?message=Username Already Taken Please
 Resubmit Form");
                        }
                        else{
                            $stmt = $dbhandler->prepare("
                                INSERT INTO table_user (name, username, password, email, mobile, add
ress, role, rate)
```

```
                                    VALUES(:name, :username, :password, :email, :mobile, :address, :rol
e, :rate)
                                ");
                                $stmt->bindParam(':name', $name);
                                $stmt->bindParam(':username', $username);
                                $stmt->bindParam(':password', $password);
                                $stmt->bindParam(':email', $email);
                                $stmt->bindParam(':mobile', $mobile);
                                $stmt->bindParam(':address', $address);
                                $stmt->bindParam(':role', $role);
                                $stmt->bindParam(':rate', $rate);
                                $stmt->execute();
                                echo "<br><br>";
                                //echo "You are registered Now you can login ";
                                header("Location: registration.php?message=You are registered Now you ca
n login ");
                                echo "<a href='login.php'>Login</a>";
                            }
                        }
                    }
                    catch(PDOException $e)
                    {
                        echo $e->getMessage();
                        die();
                    }
                ?>

            </footer>
        </body>
</html>
```

- **Login Module:**

  Users are able to login themselves. System logs user in, then and only then user can use other functionalities of system.

```
<?php
                    try
                    {
                        if(isset($_POST['login']))
                        {
                            $username=$_POST["username"];
                            $password=$_POST["password"];
                            $stmt = $dbhandler->prepare("
                                SELECT * FROMtable_user
                                WHEREusername=:username
                                ANDpassword=:password
                                LIMIT 1
```

```
                    ");
                    $stmt->bindParam(':username', $username);
                    $stmt->bindParam(':password', $password);
                    $stmt->execute();
                    $row = $stmt->fetch();
                    if ($row)
                    {
                        $id = $row['id'];
                        $role = $row['role'];
                        $name = $row['name'];
                        $rate = $row['rate'];
                        $_SESSION["is_login"] = true;
                        $_SESSION["session_id"] = $id;
                        $_SESSION["session_role"] = $role;
                        $_SESSION["session_name"] = $name;
                        $_SESSION["session_rate"] = $rate;
                        header("Location: index.php");
                        exit();
                    }
                    else
                    {
                        echo "Invalid Credentials";
                    }
                }
            }
            catch(PDOException $e)
            {
                echo $e->getMessage();
                die();
            }
        ?>
```

- **View_ledger Module:**

  In view_ledger module customers can see their daily ledger and they can also see previous ledgers also with total bill. And Also admin can see ledger of all customers.

```
<?php
    require_once("connection.php");
    if(!isset($_SESSION["is_login"]) || $_SESSION['is_login'] != true)
    {
        header("Location: login.php");
    }
    if(isset($_REQUEST['id']))
    {
        $id = $_REQUEST['id'];
        $name = $_REQUEST['name'];
```

```
        $rate = $_REQUEST['rate'];
    }
    else if($_SESSION['role'] = 1)
    {
        $id = $_SESSION['session_id'];
        $name = $_SESSION['session_name'];
        $rate = $_SESSION['session_rate'];
    }

    if(isset($_POST['search']))
    {
        $o_month=$_POST["o_month"];
        $o_year=$_POST["o_year"];
    } else {
        $o_month=date('m');
        $o_year=date('Y');
    }

?>

<html>
    <head>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>My Dairy</title>
        <link rel="stylesheet" href="style.css">
    </head>
    <body>
        <header>
            <nav>
                <a href="index.php">Home</a>
                <a href="logout.php">Log Out</a>
            </nav>
            Ledger for <b> <?php echo $name ?> </b>
            <hr>
        </header>
        <main>
            <form action="" method="POST">
                Select Month
                <select id="o_month" name="o_month">
                    <option value="01" <?php echo $o_month == '01' ? ' selected' : ''; ?>>January</o
ption>
                    <option value="02" <?php echo $o_month == '02' ? ' selected' : ''; ?>>February</
option>
                    <option value="03" <?php echo $o_month == '03' ? ' selected' : ''; ?>>March</opt
ion>
                    <option value="04" <?php echo $o_month == '04' ? ' selected' : ''; ?>>April</opt
ion>
                    <option value="05" <?php echo $o_month == '05' ? ' selected' : ''; ?>>May</optio
n>
                    <option value="06" <?php echo $o_month == '06' ? ' selected' : ''; ?>>June</opti
on>
                    <option value="07" <?php echo $o_month == '07' ? ' selected' : ''; ?>>July</opti
on>
                    <option value="08" <?php echo $o_month == '08' ? ' selected' : ''; ?>>August</op
tion>
```

```
                    <option value="09" <?php echo $o_month == '09' ? ' selected' : ''; ?>>September<
/option>
                    <option value="10" <?php echo $o_month == '10' ? ' selected' : ''; ?>>October</o
ption>
                    <option value="11" <?php echo $o_month == '11' ? ' selected' : ''; ?>>November</
option>
                    <option value="12" <?php echo $o_month == '12' ? ' selected' : ''; ?>>December</
option>
                </select>
                Select Year
                <select id="o_year" name="o_year">
                    <option value="2021" <?php echo $o_year == '2021' ? ' selected' : ''; ?>>2021</o
ption>
                    <option value="2022" <?php echo $o_year == '2022' ? ' selected' : ''; ?>>2022</o
ption>
                    <option value="2023" <?php echo $o_year == '2023' ? ' selected' : ''; ?>>2023 </
option>
                    <option value="2024" <?php echo $o_year == '2024' ? ' selected' : ''; ?>>2024</o
ption>
                    <option value="2025" <?php echo $o_year == '2025' ? ' selected' : ''; ?>>2025</o
ption>
                </select>
                <input type="submit" name="search" value="Search"/>
            </form>
            <?php
                if(!isset($id)){
                    echo "Please Select User <a href='index.php'>HOME</a>";
                } else {
                    echo '<a href="add_ledger.php?id='.$id.'&name='.$name.'&rate='.$rate.'">Add</a>
<br>'
            ?>
                <table>
                    <thead>
                        <tr>
                            <th>Date</th>
                            <th>Qty</th>
                            <th>Rate</th>
                            <th>Total</th>
                        </tr>
                    </thead>
                    <tbody>
                        <?php
                            $stmt = $dbhandler->prepare("
                                SELECT * FROM table_ledger
                                WHERE user_id=:user_id
                                AND MONTH(o_date) = :o_month
                                AND YEAR(o_date) = :o_year
                                ORDER BY o_date DESC
                            ");
                            $stmt->bindParam(':user_id', $id);
                            $stmt->bindParam(':o_month', $o_month);
                            $stmt->bindParam(':o_year', $o_year);
                            $stmt->execute();
                            $data = $stmt->fetchAll();
                            $total_qty = 0;
                            $total_rate = 0;
```

```
                                foreach ( $data as $row ) {
                                    echo '<tr>' ;
                                        echo '<td>' . $row['o_date' ]. '</td>' ;
                                        echo '<td>' . $row['qty' ]. '</td>' ;
                                        echo '<td>' . $row['rate' ]. '</td>' ;
                                        echo '<td >' . $row['qty' ] * $row['rate' ]. '</td>' ;
                                    echo '</tr>' ;
                                    $total_qty += $row['qty' ];
                                    $total_rate += $row['qty' ] * $row['rate' ];
                                }
                            ?>
                        </ tbody >
                        </ tfoot >
                            <tr >
                                <th ><b> TOTAL</ b></ th >
                                <th ><?php echo $total_qty ; ?></ th >
                                <th ></ th >
                                <th ><?php echo $total_rate ; ?></ th >
                            </ tr >
                        </ tfoot >
                    </ table >
                <?php
                    }
                ?>

            <main >
            <footer > </ footer >
        </ body >
</ html >
```

- **Add_ledgerModule:**

  Add ledger module allows admin and customer to add ledger for perticuler day with quantity and date. This takes details as mentioned for whatever quentity of milk customer has taken on that day.

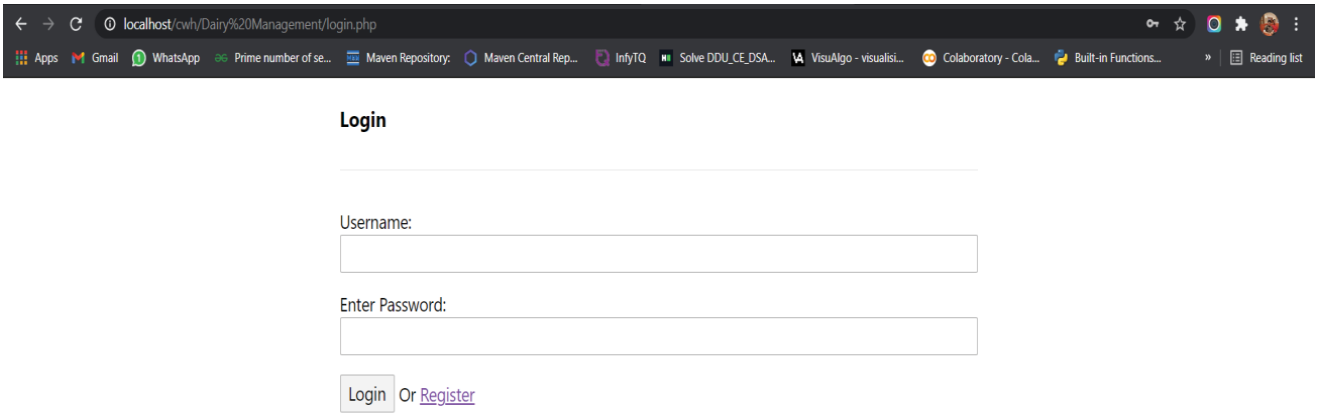
```
<?php
    require_once ( "connection.php" ) ;
    if (! isset ( $_SESSION[ "is_login" ]) || $_SESSION[ 'is_login' ] != true )
    {
        header ( "Location: login.php" );
    }
    if ( isset ( $_REQUEST['id' ]))
    {
        $id = $_REQUEST['id' ];
```

```
        $name = $_REQUEST['name'];
        $rate = $_REQUEST['rate'];
    }

?>

<html>
    <head>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>My Dairy</title>
        <link rel="stylesheet" href="style.css">
    </head>
    <body>
        <header>
            <nav>
                <a href="index.php">Home</a>
                <a href="logout.php">Log Out</a>
            </nav>
            Add Ledger for <b> <?php echo $name ?> </b>
            <hr>
        </header>
        <main>
            <?php
                if(!isset($id)){
                    echo "Please Select User <a href='index.php'>HOME</a>";
                } else {
            ?>
                <form action="" method="POST">
                    <lable>Date:</lable>
                    <input type="date" name="o_date" required/>
                    <lable>Quantity:</lable>
                    <input type="number" name="qty" required/>
                    <input type="submit" name="submit" value="Submit"/>
                </form>
            <?php
                }
            ?>

        <main>
        <footer>
            <?php
                try
                {
                    if(isset($_POST['submit']))
                    {
                        $o_date=$_POST["o_date"];
                        $qty=$_POST["qty"];
                        $stmt = $dbhandler->prepare("
                            INSERT INTO table_ledger (user_id, o_date, qty, rate)
                            VALUES (:user_id, :o_date, :qty, :rate)
                        ");
                        $stmt->bindParam(':user_id', $id);
                        $stmt->bindParam(':o_date', $o_date);
                        $stmt->bindParam(':qty', $qty);
                        $stmt->bindParam(':rate', $rate);
```

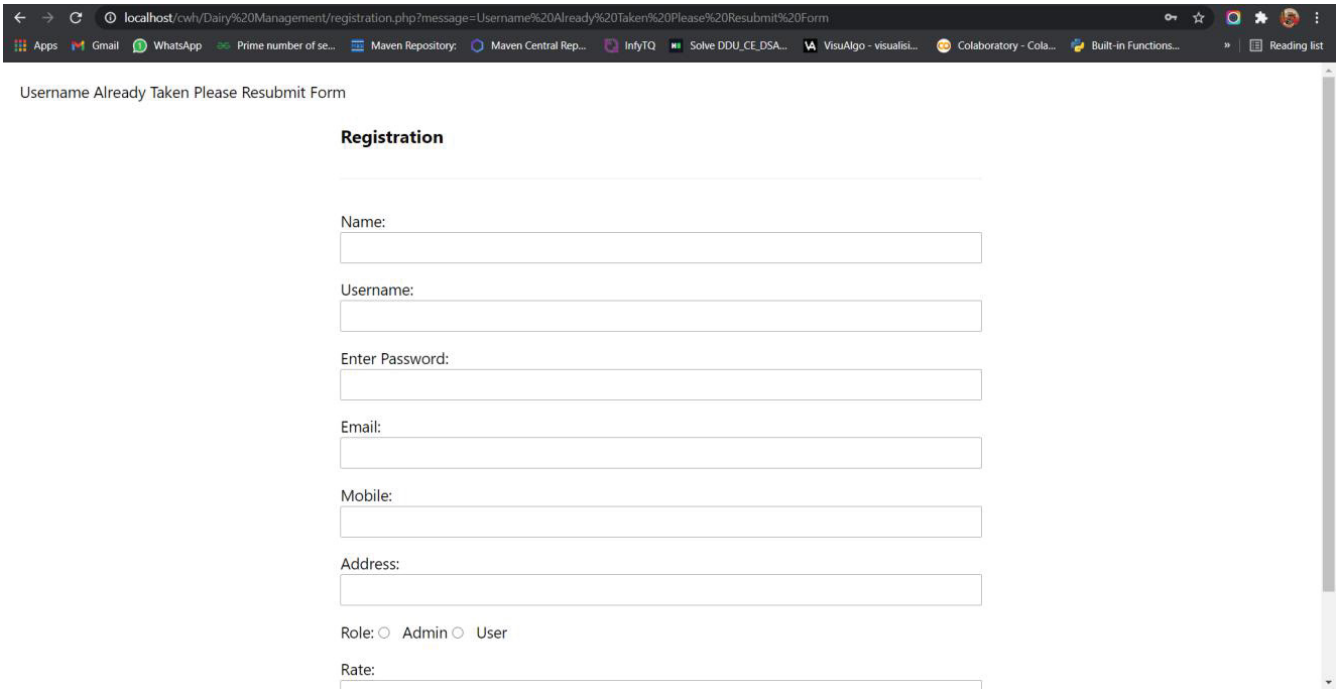
```
                        $stmt->execute();
                        echo header("Location: view_ledger.php?id=".$id."&name=".$name."&rate=".$rat
e);
                    }
                }
                catch(PDOException $e)
                {
                    echo $e->getMessage();
                    die();
                }
            ?>

        </footer>
    </body>
</html>
```

Work Flow/Layouts

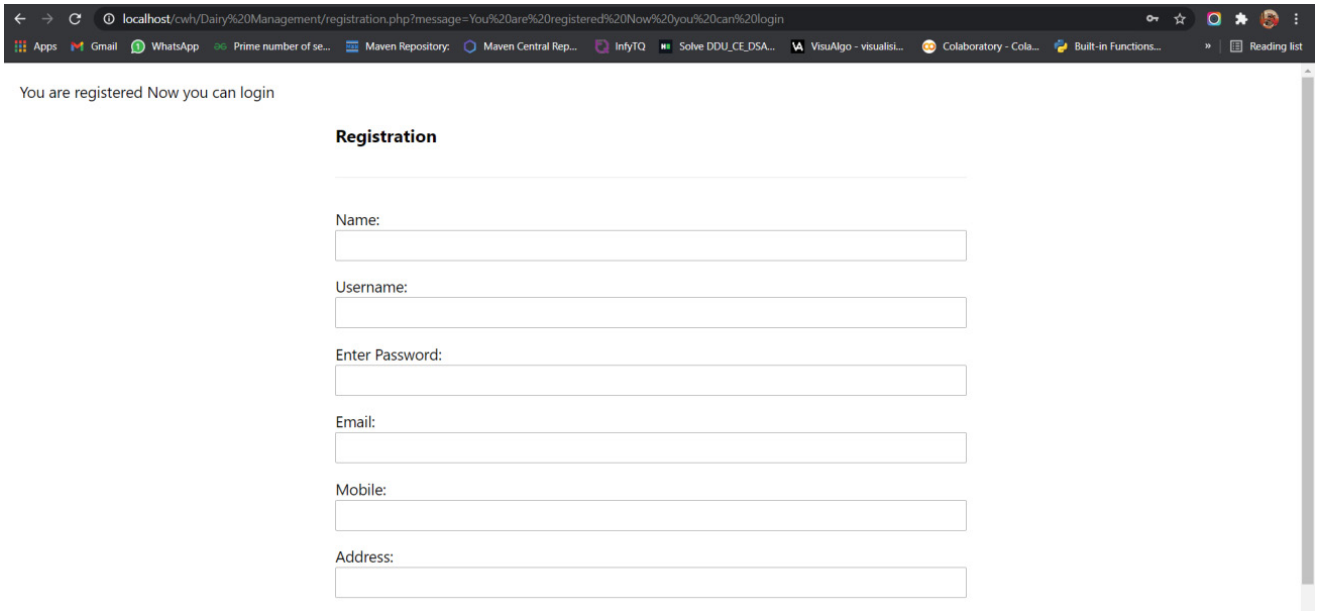
- Whenever User opens Application Login page will be loaded.



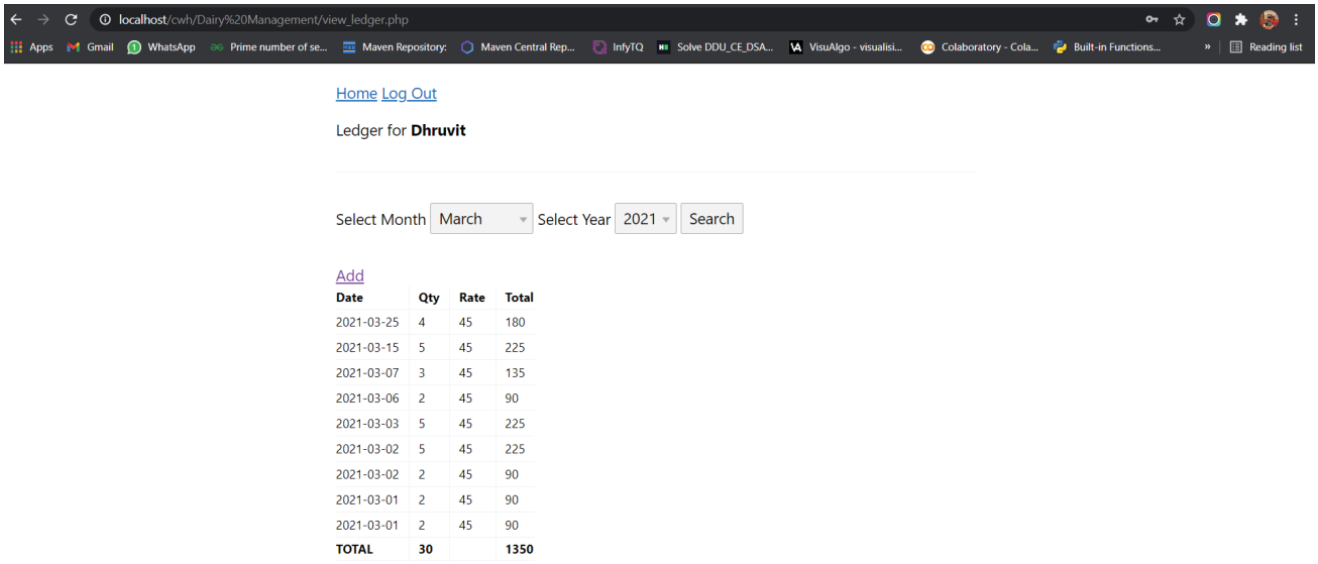
- If any new user comes and he/she want to register. Then he/she go to register page by clicking hyperlink showed in login page.
- If any user is trying to register with existing username then Error message is displayed.



- Else Successful Registration message will be displayed.

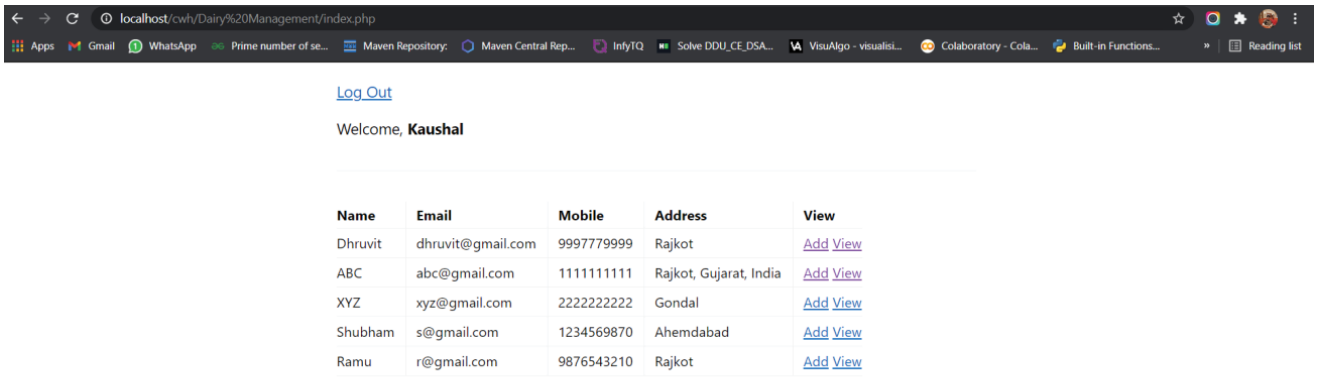


- For Customers home page is of view ledger.Customer can see their ledger and can add ledger.By default current mo nth's and year's ledger is displayed.User can see any month's and year's ledger.
- If admin is watching ledger than that perticuler customer's data will be in url.

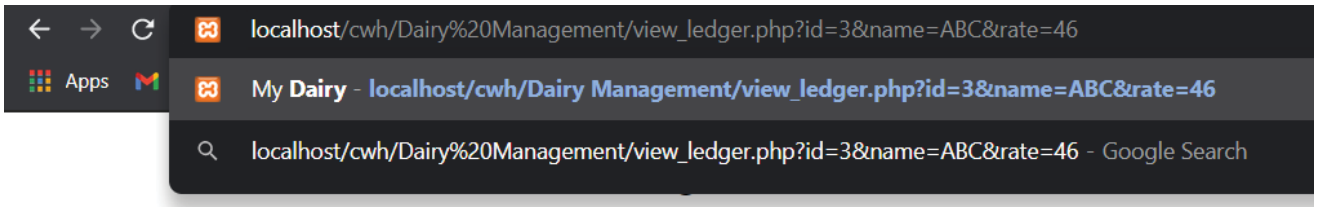


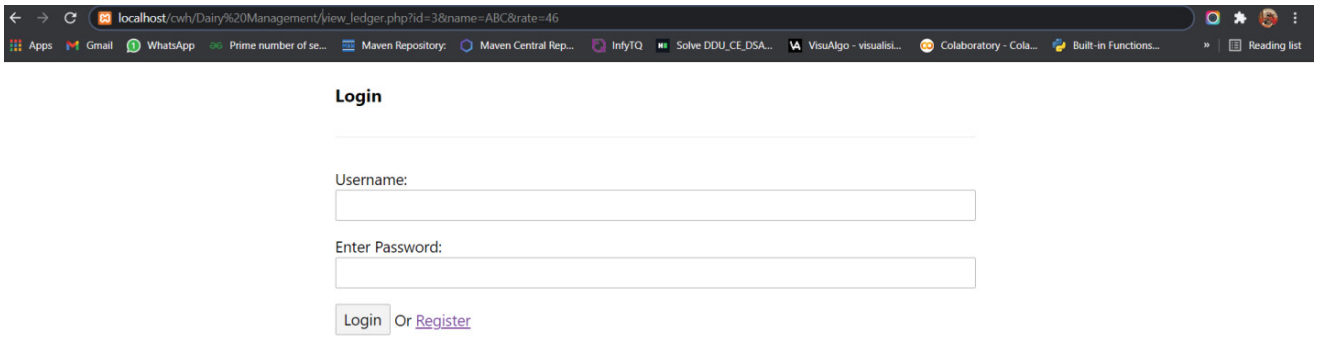
Date	Qty	Rate	Total
2021-03-25	4	45	180
2021-03-15	5	45	225
2021-03-07	3	45	135
2021-03-06	2	45	90
2021-03-03	5	45	225
2021-03-02	5	45	225
2021-03-02	2	45	90
2021-03-01	2	45	90
2021-03-01	2	45	90
TOTAL	**30**		**1350**

- For Admin home page is of details of all customers. From that admin can watch ledger of any customer and also can add ledger of any customer.

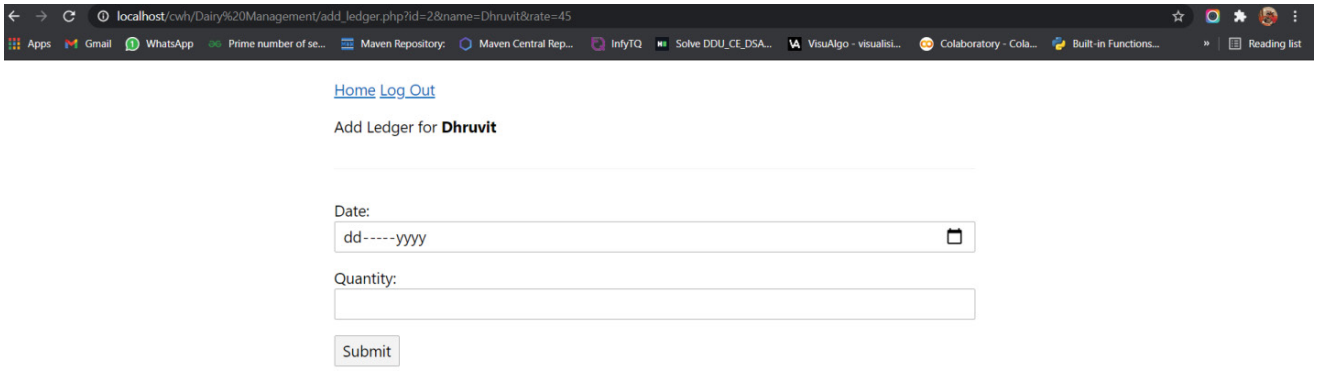


- If any user trying to enter any page without login than it will automatically displaies login page.





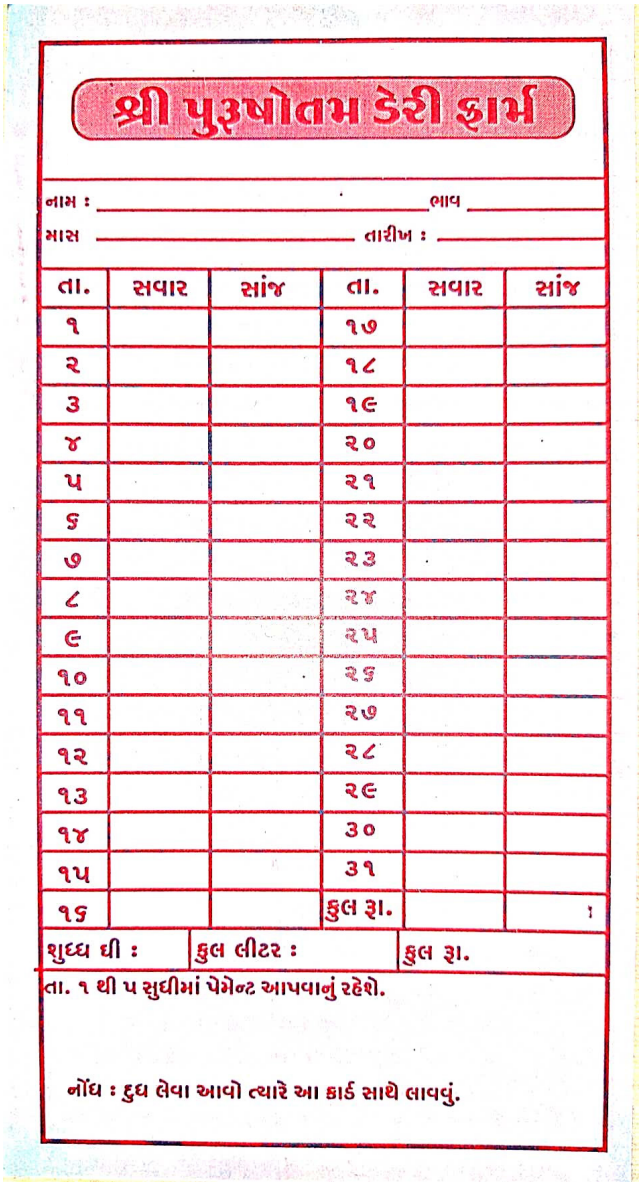
- Admin/Customer both can add ledger.



- Logout link leads user to login page and all sessions and connections will be closed.

Conclusion

By using this app it becomes easier to maintain recordes of customers and also it becomes easier to maintain all ledger details and bills of all customer. Also customer can see their previous bills and ledger.



શ્રી પુરૂષોતમ ડેરી ફાર્મ

નામ : _____ ભાવ _____

માસ _____ તારીખ : _____

તા.	સવાર	સાંજ	તા.	સવાર	સાંજ
૧			૧૭		
૨			૧૮		
૩			૧૯		
૪			૨૦		
૫			૨૧		
૬			૨૨		
૭			૨૩		
૮			૨૪		
૯			૨૫		
૧૦			૨૬		
૧૧			૨૭		
૧૨			૨૮		
૧૩			૨૯		
૧૪			૩૦		
૧૫			૩૧		
૧૬			કુલ રૂા.		

શુધ્ધ ઘી :	કુલ લીટર :	કુલ રૂા.

તા. ૧ થી ૫ સુધીમાં પેમેન્ટ આપવાનું રહેશે.

નોંધ : દુધ લેવા આવો ત્યારે આ કાર્ડ સાથે લાવવું.

This application is very practical. So that it can be replaced with this physical card.

Limitations and Future Extensions:

- **Limitations:**
  - Once ledger is added we can not change it.
  - Admin can not send mail of bill to customer.
  - Customer can contact admin(Dairy Owner) Customer can contact by milk supplier to customers.
  - Can not update data of customer.

- **Future Extensions:**
  - Update ledger feature can be added.
  - Update customer details feature can be added.
  - Map feature can be added so that customer can track to supplier and also supplire can tr ack to customer(Since it is meant for daily customer this map is not required).
  - Feature of mail of bill can be added.

Bibliography:

- Fully self maded only one readymade css file is used for proper indentation.
- Link for readymade css file: https://igoradamenko.github.io/awsm.css/css/awsm.css