JAVA SWING BASED –

FOOD QUALITY DATABASE

SQL CONNECTIVITY USING JDBC

A

Report

Submitted in partial fulfillment of the

Requirements for the award of the Degree of

BACHELOR OF ENGINEERING IN INFORMATION TECHNOLOGY

By

D. Leena Reddy (1602-20-737-020)

Under the guidance of Ms B. Leelavathy

Department of Information Technology

Vasavi College of Engineering (Autonomous)

(Affiliated to Osmania University)

Ibrahimbagh, Hyderabad-31

2021-2022

BONAFIDE CERTIFICATE

This is to certify that this project report titled

'Food Quality Database'

is a project work of **D. Leena Reddy** bearing roll no. 1602-20-737-020 who carried out this project under my supervision in the IV semester for the academic year 2021- 2022

Signature
External Examiner

Signature
Internal Examiner

ABSTRACT:

In the present world, “Availability of food is not really the issue, The quality of food is what we recognise is the problem”. By consuming the bad quality of food it might leads to overweight or obese, tooth decay, high blood pressure, heart disease and stroke, type-2 diabetes, osteoporosis and some cancers too. Food can play important role in maintaining your health, improving your mood and giving you an overall sense of wellbeing. So consumption of proper food which consists of lots of nutrients will not only helps you in reducing the risk of physical health problems but also to maintain required energy levels all the time and involves in proper functionality of brain. It can also help people with depression, anxiety and other related disorders.

Firstly, The fruits and the vegetables that are being bought in markets are contaminated with various chemicals which are harmful to living beings. And these products are used in our homes and restaurants. Secondly, some of the food products used to make food recipe are also not made in hygienic atmosphere in many restaurants. So the best way is to have quality check in the presence of food inspector, do choose the food items from those restaurants which are tested and certified by the inspection committee. This might help the people in consuming the food with the better quality percentage of food.

REQUIREMETS ANALYSIS:

List of Tables:

-Customer

-Food_Recipe

-Ingredients

-Chooses

-Quality Check

List of Attributes with their domain types:

CUSTOMER:

>User_id NUMBER(10)

>User_Name VARCHAR2(20)

FOOD RECIPE:

>Food_id NUMBER(10)

>Food_Name VARCHAR2(20)

INGREDIENTS:

>Food_id NUMBER(10)

>Ing_Name VARCHAR2(20)

>Grading NUMBER(10)

CHOOSES:

>User_id NUMBER(10)

>Food_id NUMBER(10)

QUALITY CHECK:

>User_id NUMBER(10)

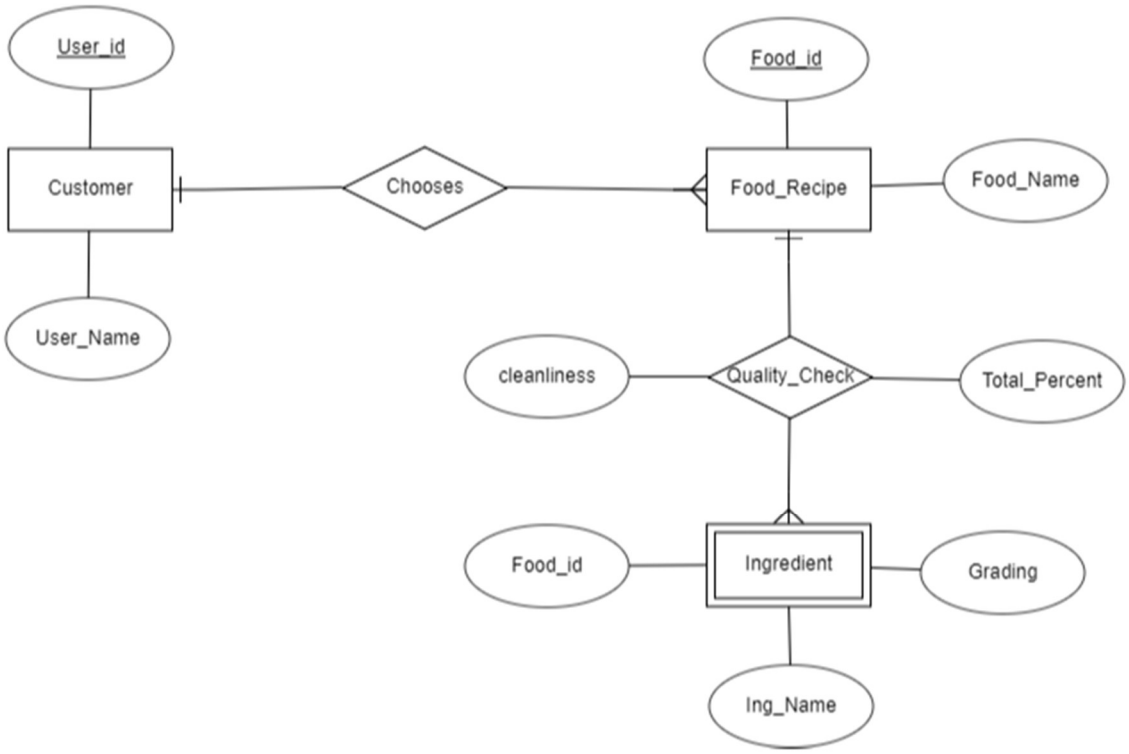
>Food_id NUMBER(10)

>Cleanliness NUMBER(10)

>Tot_Percent NUMBER(10)

DESIGN

ENTITY RELATION DIAGRAM:



DDL OPERATIONS:

1.CREATE TABLE Customer(

user_id number(10),

user_name varchar(20));

Table created.

ALTER TABLE Customer add constraint pk_Customer primary key(user_id);

Table altered.

```
SQL> CREATE TABLE Customer(
  2  user_id number(10),
  3  user_name  varchar(20));

Table created.

SQL> ALTER TABLE Customer add constraint pk_Customer primary key(user_id);

Table altered.

SQL> desc Customer;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 USER_ID                                   NOT NULL NUMBER(10)
 USER_NAME                                          VARCHAR2(20)
```

2.CREATE TABLE Food_Recipe(

Food_id number(10),

user_id number(10),

Food_name varchar(20));

Table created.

ALTER TABLE Food_Recipe add constraint pk_ Food_Recipe primary key(Food_id);

Table altered.

ALTER TABLE Food_Recipe add constraint fk_Fook_Recipe foreign key(User_id) references Customer(User_id);

Table altered.

```
SQL> CREATE TABLE Food_Recipe
  2  (Food_id number(10),
  3  User_id number(10),
  4  User_Name varchar2(20));

Table created.

SQL> ALTER TABLE Food_Recipe add constraint pk_Food_Recipe primary key(food_id);

Table altered.
```

```
SQL> ALTER TABLE Food_Recipe add constraint fk_Food_Recipe foreign key(User_id) references Customer(User_id);

Table altered.

SQL>
```

3. CREATE TABLE Ingredients

(Food_id number(10),

Ing_Name varchar2(20),

Grading number(10));

Table created.

ALTER TABLE Ingredients add constraint fk_Ingredients foreign key(Food_id) references Food_Recipe(Food_id);

Table altered.

```
SQL> CREATE TABLE Ingredients
  2  (Food_id number(10),
  3  Ing_Name varchar2(20),
  4  Grading number(10));

Table created.

SQL> ALTER TABLE Ingredients add constraint fk_Ingredients foreign key(Food_id) references Food_Recipe(Food_id);


Table altered.

SQL> desc Ingredients;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 FOOD_ID                                            NUMBER(10)
 ING_NAME                                           VARCHAR2(20)
 GRADING                                            NUMBER(10)
```

4. CREATE TABLE chooses

(User_id number(10),

Food_id number(10));

Table created.

ALTER TABLE chooses add constraint fk_chooses foreign key(User_id) references Customer(User_id);

Table altered.

ALTER TABLE chooses add constraint fk_choose foreign key(Food_id) references Food_Recipe(Food_id);

Table altered.

```
SQL> CREATE TABLE chooses
  2  (User_id number(10),
  3  Food_id number(10));

Table created.

SQL> ALTER TABLE chooses add constraint fk_chooses foreign key(User_id) references Customer(User_id);

Table altered.
```

```
SQL> ALTER TABLE chooses add constraint fk_choose foreign key(Food_id) references Food_Recipe(Food_id);

Table altered.

SQL> desc chooses;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 USER_ID                                            NUMBER(10)
 FOOD_ID                                            NUMBER(10)
```

5. CREATE TABLE Quality_Check

(User_id number(10),

Food_id number(10),

Cleanliness number(10),

Tot_Percent number(10));

Table created.

ALTER TABLE quality_check add constraint fk_user_quality foreign key(User_id) references Customer(User_id);

Table altered.

ALTER TABLE quality_check add constraint fk_food_quality foreign key(Food_id) references Food_Recipe(Food_id);

Table altered.

```
SQL> CREATE TABLE Quality_Check
  2  (User_id number(10),
  3  Food_id number(10),
  4  Cleanliness number(10),
  5  Tot_Percent number(10));

Table created.

SQL> ALTER TABLE quality_check add constraint fk_user_quality foreign key(User_id) references Customer(User_id);

Table altered.

SQL> ALTER TABLE quality_check add constraint fk_food_quality foreign key(Food_id) references Food_Recipe(Food_id);

Table altered.

SQL> desc Quality_check;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 USER_ID                                            NUMBER(10)
 FOOD_ID                                            NUMBER(10)
 CLEANLINESS                                        NUMBER(10)
 TOT_PERCENT                                        NUMBER(10)
```

DML OPERATIONS:

>Inserting Values into Customer Table.

INSERT INTO Customer values(&user_id,'&user_name');

```
SQL> INSERT INTO Customer values(&user_id,'&user_name');
Enter value for user_id: 101
Enter value for user_name: Leena
old   1: INSERT INTO Customer values(&user_id,'&user_name')
new   1: INSERT INTO Customer values(101,'Leena')

1 row created.

SQL> /
Enter value for user_id: 102
Enter value for user_name: Pooja
old   1: INSERT INTO Customer values(&user_id,'&user_name')
new   1: INSERT INTO Customer values(102,'Pooja')

1 row created.

SQL> /
Enter value for user_id: 103
Enter value for user_name: Srilatha
old   1: INSERT INTO Customer values(&user_id,'&user_name')
new   1: INSERT INTO Customer values(103,'Srilatha')

1 row created.

SQL> /
Enter value for user_id: 104
Enter value for user_name: Srinivas
old   1: INSERT INTO Customer values(&user_id,'&user_name')
new   1: INSERT INTO Customer values(104,'Srinivas')

1 row created.
```

```
SQL> select * from Customer;

   USER_ID USER_NAME
---------- --------------------
       101 Leena
       102 Pooja
       103 Srilatha
       104 Srinivas
```

> Inserting Values into Food_Recipe Table.

INSERT INTO Food_Recipe values(&Food_id,&user_id,'&FOOD_NAME');

```
SQL> INSERT INTO Food_Recipe values(&Food_id,&user_id,'&FOOD_NAME');
Enter value for food_id: 21
Enter value for user_id: 102
Enter value for food_name: fried rice
old   1: INSERT INTO Food_Recipe values(&Food_id,&user_id,'&FOOD_NAME')
new   1: INSERT INTO Food_Recipe values(21,102,'fried rice')

1 row created.

SQL> /
Enter value for food_id: 22
Enter value for user_id: 101
Enter value for food_name: biryani
old   1: INSERT INTO Food_Recipe values(&Food_id,&user_id,'&FOOD_NAME')
new   1: INSERT INTO Food_Recipe values(22,101,'biryani')

1 row created.

SQL> /
Enter value for food_id: 23
Enter value for user_id: 103
Enter value for food_name: egg puff
old   1: INSERT INTO Food_Recipe values(&Food_id,&user_id,'&FOOD_NAME')
new   1: INSERT INTO Food_Recipe values(23,103,'egg puff')

1 row created.

SQL> /
Enter value for food_id: 24
Enter value for user_id: 104
Enter value for food_name: manchuria
old   1: INSERT INTO Food_Recipe values(&Food_id,&user_id,'&FOOD_NAME')
new   1: INSERT INTO Food_Recipe values(24,104,'manchuria')

1 row created.

SQL> /
Enter value for food_id: 25
Enter value for user_id: 102
Enter value for food_name: noodles
old   1: INSERT INTO Food_Recipe values(&Food_id,&user_id,'&FOOD_NAME')
new   1: INSERT INTO Food_Recipe values(25,102,'noodles')

1 row created.
```

```
SQL> select * from Food_Recipe;

   FOOD_ID    USER_ID FOOD_NAME
---------- ---------- --------------------
        21        102 fried rice
        22        101 biryani
        23        103 egg puff
        24        104 manchuria
        25        102 noodles
```

>Inserting Values into Ingredients Table.

INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING);

```
SQL> INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING);
Enter value for food_id: 21
Enter value for ing_name: Rice
Enter value for grading: 9
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(21,'Rice',9)

1 row created.

SQL> /
Enter value for food_id: 21
Enter value for ing_name: oil
Enter value for grading: 7
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(21,'oil',7)

1 row created.

SQL> /
Enter value for food_id: 21
Enter value for ing_name: spices
Enter value for grading: 8
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(21,'spices',8)

1 row created.

SQL> /
Enter value for food_id: 21
Enter value for ing_name: onions
Enter value for grading: 9
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(21,'onions',9)

1 row created.

SQL> /
Enter value for food_id: 21
Enter value for ing_name: eggs
Enter value for grading: 10
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(21,'eggs',10)

1 row created.
```

```
SQL> 22
SP2-0226: Invalid line number
SQL>
SQL> /
Enter value for food_id: 22
Enter value for ing_name: Basmati Rice
Enter value for grading: 10
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(22,'Basmati Rice',10)

1 row created.

SQL> /
Enter value for food_id: 22
Enter value for ing_name: ghee
Enter value for grading: 10
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(22,'ghee',10)

1 row created.

SQL> /
Enter value for food_id: 22
Enter value for ing_name: spices
Enter value for grading: 9
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(22,'spices',9)

1 row created.

SQL> 22
SP2-0226: Invalid line number
SQL> /
Enter value for food_id: 22
Enter value for ing_name: coriander
Enter value for grading: 10
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(22,'coriander',10)

1 row created.
```

```
SQL> oil
SP2-0042: unknown command "oil" - rest of line ignored.
SQL> /
Enter value for food_id: 22
Enter value for ing_name: oil
Enter value for grading: 7
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(22,'oil',7)

1 row created.
```

```
SQL> /
Enter value for food_id: 23
Enter value for ing_name: eggs
Enter value for grading: 9
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(23,'eggs',9)

1 row created.

SQL> /
Enter value for food_id: 23
Enter value for ing_name: maida
Enter value for grading: 6
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(23,'maida',6)

1 row created.

SQL> /
Enter value for food_id: 23
Enter value for ing_name: chilli powder
Enter value for grading: 7
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(23,'chilli powder',7)

1 row created.
```

```
SQL> /
Enter value for food_id: 24
Enter value for ing_name: Onions
Enter value for grading: 6
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(24,'Onions',6)

1 row created.

SQL> 24
SP2-0226: Invalid line number
SQL>
SQL> /
Enter value for food_id: 24
Enter value for ing_name: Cabbage
Enter value for grading: 6
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(24,'Cabbage',6)

1 row created.

SQL> /
Enter value for food_id: 24
Enter value for ing_name: flour
Enter value for grading: 6
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(24,'flour',6)

1 row created.

SQL> /
Enter value for food_id: 24
Enter value for ing_name: sauces
Enter value for grading: 5
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(24,'sauces',5)

1 row created.
```

```
1 row created.

SQL> /
Enter value for food_id: 25
Enter value for ing_name: onions
Enter value for grading: 7
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(25,'onions',7)

1 row created.

SQL> /
Enter value for food_id: 25
Enter value for ing_name: maida
Enter value for grading: 7
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(25,'maida',7)

1 row created.
```

```
SQL> /
Enter value for food_id: 25
Enter value for ing_name: sauces
Enter value for grading: 5
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(25,'sauces',5)

1 row created.

SQL> /
Enter value for food_id: 25
Enter value for ing_name: carrots
Enter value for grading: 6
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(25,'carrots',6)

1 row created.

SQL> /
Enter value for food_id: 25
Enter value for ing_name: capsicum
Enter value for grading: 7
old   1: INSERT INTO Ingredients values(&FOOD_ID,'&ING_NAME',&GRADING)
new   1: INSERT INTO Ingredients values(25,'capsicum',7)

1 row created.
```

```
SQL> select * from customer;

   USER_ID USER_NAME
---------- --------------------
         4 nakshatra
         1 leena
         2 srinivas
         3 srilatha
         5 sree
         6 sreya

6 rows selected.

SQL> select * from food_recipe;

   FOOD_ID    USER_ID FOOD_NAME
---------- ---------- --------------------
       101          1 Egg Rice
       102          2 kesari
       106          1 sweet
       103          3 plain dosa
       104          6 halwa
       107          4 masala dosa
       105          5 vada

7 rows selected.

SQL> select * from ingredients;

   FOOD_ID ING_NAME               GRADING
---------- -------------------- ----------
       105 chana dal                     8
       102 ravva                         9
       102 water                        10
       101 oil                           7
       101 onion                         9
       104 sugar                         6
       103 rice floor                    9
       104 dal                           9
       107 mustard seeds                 9

9 rows selected.

SQL> _
```

AIM AND PRIORITY OF THE PROJECT: To create a Java GUI-based desktop application that helps the customer to find out the percentage of the quality of food recipe for the entered food recipe through form which are then updated in the database using JDBC connectivity.

ARCHITECTURE AND TECHNOLOGY

Software used: Java Eclipse, Oracle 11g Database, Java SE version 13, SQL*Plus.

Java SWING:

Java SWING is a GUI widget toolkit for Java. It is part of Oracle's Java Foundation Classes (JFC) - an API for providing a graphical user interface (GUI) for Java programs. Swing was developed to provide a more sophisticated set of GUI components than the earlier AWT. Swing provides a look and feel that emulates the look and feel of several platforms, and also supports a pluggable look and feel that allows applications to have a look and feel unrelated to the underlying platform. It has more powerful and flexible components than AWT. In addition to familiar components such as buttons, check boxes and labels, Swing provides several advanced components such as tabbed panel, scroll panes, trees, tables, and lists.

SQL:

Structure Query Language(SQL) is a database query language used for storing and managing data in Relational DBMS. SQL was the first commercial language introduced for E.F Codd's Relational model of database. Today almost all RDBMS (MySql, Oracle, Infomix, Sybase, MS Access) use SQL as the standard database query language. SQL is used to perform all types of data operations in RDBMS.

IMPLEMENTATION:

JAVA-SQL Connectivity using JDBC:

Java Database Connectivity (JDBC) is an application programming interface (API) for the programming language Java, which defines how a client may access a database. It is a Java-based data access technology used for Java database connectivity. It is part of the Java Standard Edition platform, from Oracle Corporation. It provides methods to query and update data in a database and is oriented towards relational databases.

The connection to the database can be performed using Java programming (JDBC API) as:

```
package main;

import java.sql.*;

public class ConnectionManager {

private static String url = "jdbc:oracle:thin:@localhost:1521:xe";

private static String username = "leena";

private static String password = "vasavi";

 private static Connection con;

public static Connection getConnection() throws Exception { con = DriverManager.getConnection(url, username, password);

return con;

}

}
```

FRONT END DEVELOPMENT:

Mainpage1.java:

```
import java.sql.*;

import java.awt.Color;

import java.awt.Container;

public class Mainpage1 extends javax.swing.JFrame {

   public Mainpage1() {

      initComponents();

      Color mycolor=new Color(204,255,255);
```

```
    Container c =getContentPane(); // Container c having the getcontentpane
    c.setBackground(mycolor);
}
private void initComponents() {
    jColorChooser1 = new javax.swing.JColorChooser();
    jLabel1 = new javax.swing.JLabel();
    jMenuBar1 = new javax.swing.JMenuBar();
    jMenu1 = new javax.swing.JMenu();
    jMenuItem1 = new javax.swing.JMenuItem();
    jMenuItem2 = new javax.swing.JMenuItem();
    jMenuItem3 = new javax.swing.JMenuItem();
    jMenuItem4 = new javax.swing.JMenuItem();
    jMenu2 = new javax.swing.JMenu();
    jMenuItem5 = new javax.swing.JMenuItem();
    jMenuItem6 = new javax.swing.JMenuItem();
    jMenuItem7 = new javax.swing.JMenuItem();
    jMenuItem8 = new javax.swing.JMenuItem();
    jMenu3 = new javax.swing.JMenu();
    jMenuItem9 = new javax.swing.JMenuItem();
    jMenuItem10 = new javax.swing.JMenuItem();
    jMenuItem11 = new javax.swing.JMenuItem();
    jMenuItem12 = new javax.swing.JMenuItem();
    jMenu4 = new javax.swing.JMenu();
    jMenuItem13 = new javax.swing.JMenuItem();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
    setTitle("Food Quality Database");
    setBackground(new java.awt.Color(255, 153, 204));

    jLabel1.setFont(new java.awt.Font("Serif", 1, 18));
    jLabel1.setForeground(new java.awt.Color(102, 0, 102));
    jLabel1.setText("TO PERFORM DML OPERATIONS CHOOSE ABOVE MENUITEMS..");

    jMenuBar1.setBackground(new java.awt.Color(204, 204, 255));
    jMenuBar1.setForeground(new java.awt.Color(153, 0, 0));

    jMenu1.setForeground(new java.awt.Color(153, 0, 0));
    jMenu1.setText("Customer");
    jMenu1.setFont(new java.awt.Font("SansSerif", 1, 15));
```

```
jMenuItem1.setForeground(new java.awt.Color(0, 102, 102));
jMenuItem1.setText("insert");
jMenuItem1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem1ActionPerformed(evt);
    }
});
jMenu1.add(jMenuItem1);
jMenuItem2.setForeground(new java.awt.Color(153, 153, 0));
jMenuItem2.setText("delete");
jMenuItem2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem2ActionPerformed(evt);
    }
});
jMenu1.add(jMenuItem2);
jMenuItem3.setText("update");
jMenuItem3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {           }
});
jMenu1.add(jMenuItem3);
jMenuItem4.setForeground(new java.awt.Color(153, 0, 153));
jMenuItem4.setText("view");
jMenuItem4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem4ActionPerformed(evt);
    }
});
jMenu1.add(jMenuItem4);

jMenuBar1.add(jMenu1);
jMenu2.setForeground(new java.awt.Color(204, 0, 51));
jMenu2.setText("Food Recipe");
jMenu2.setFont(new java.awt.Font("SansSerif", 1, 15));
jMenuItem5.setForeground(new java.awt.Color(0, 102, 102));
jMenuItem5.setText("insert");
jMenuItem5.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem5ActionPerformed(evt);
```

```
    }
});
jMenu2.add(jMenuItem5);
jMenuItem6.setForeground(new java.awt.Color(153, 153, 0));
jMenuItem6.setText("delete");
jMenuItem6.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem6ActionPerformed(evt);
    }
});
jMenu2.add(jMenuItem6);
jMenuItem7.setText("update");
jMenuItem7.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
    } });
jMenu2.add(jMenuItem7);
jMenuItem8.setForeground(new java.awt.Color(153, 0, 153));
jMenuItem8.setText("view");
jMenuItem8.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem8ActionPerformed(evt);
    }
});
jMenu2.add(jMenuItem8);
jMenuBar1.add(jMenu2);
jMenu3.setForeground(new java.awt.Color(153, 0, 51));
jMenu3.setText("Indredients");
jMenu3.setFont(new java.awt.Font("SansSerif", 1, 15));
jMenuItem9.setForeground(new java.awt.Color(0, 102, 102));
jMenuItem9.setText("insert");
jMenuItem9.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem9ActionPerformed(evt);
    }
});
jMenu3.add(jMenuItem9);
jMenuItem10.setForeground(new java.awt.Color(153, 153, 0));
jMenuItem10.setText("delete");
jMenu3.add(jMenuItem10);
```

```
jMenuItem11.setText("update");
jMenuItem11.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
    }
});
jMenu3.add(jMenuItem11);
jMenuItem12.setForeground(new java.awt.Color(153, 0, 153));
jMenuItem12.setText("view");
jMenuItem12.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem12ActionPerformed(evt);
    }
});
jMenu3.add(jMenuItem12);
jMenuBar1.add(jMenu3);
jMenu4.setForeground(new java.awt.Color(204, 0, 51));
jMenu4.setText("Food_Percentage");
jMenu4.setFont(new java.awt.Font("SansSerif", 1, 15));

jMenuItem13.setForeground(new java.awt.Color(51, 51, 0));
jMenuItem13.setText("Calculate");
jMenuItem13.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem13ActionPerformed(evt);
    }
});
jMenu4.add(jMenuItem13);
jMenuBar1.add(jMenu4);
setJMenuBar(jMenuBar1);
javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
        .addGap(17, 17, 17)
        .addComponent(jLabel1)
        .addContainerGap(30, Short.MAX_VALUE))
);
layout.setVerticalGroup(
```

```
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(111, 111, 111)
                .addComponent(jLabel1)
                .addContainerGap(166, Short.MAX_VALUE))
        );
        pack();
        setLocationRelativeTo(null);
    }
    private void jMenuItem5ActionPerformed(java.awt.event.ActionEvent evt) {
new foodrecipe_insert().setVisible(true);
}
    private void jMenuItem1ActionPerformed(java.awt.event.ActionEvent evt) {
new cus_insert().setVisible(true);
    }
    private void jMenuItem2ActionPerformed(java.awt.event.ActionEvent evt) {
new cus_delete().setVisible(true);
    }
    private void jMenuItem4ActionPerformed(java.awt.event.ActionEvent evt) {
new cus_view().setVisible(true);
    }
    private void jMenuItem6ActionPerformed(java.awt.event.ActionEvent evt) {
      new foodrecipe_delete().setVisible(true);
    }
    private void jMenuItem8ActionPerformed(java.awt.event.ActionEvent evt) {
    new foodrecipe_view().setVisible(true);
    }
    private void jMenuItem9ActionPerformed(java.awt.event.ActionEvent evt) {
new ingredients_insert().setVisible(true);
    }
    private void jMenuItem12ActionPerformed(java.awt.event.ActionEvent evt) {
new ingredients_view().setVisible(true);
    }
    private void jMenuItem13ActionPerformed(java.awt.event.ActionEvent evt) {
new Calculate().setVisible(true);
    }
    public static void main(String args[]) {
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
```

```
            if ("Nimbus".equals(info.getName())) {
                javax.swing.UIManager.setLookAndFeel(info.getClassName());
                break;
            }    } } catch (ClassNotFoundException ex) {
        java.util.logging.Logger.getLogger(Mainpage1.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (InstantiationException ex) {
        java.util.logging.Logger.getLogger(Mainpage1.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (IllegalAccessException ex) {
        java.util.logging.Logger.getLogger(Mainpage1.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {
        java.util.logging.Logger.getLogger(Mainpage1.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    }
    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new Mainpage1().setVisible(true);
        }
    });
}
private javax.swing.JColorChooser jColorChooser1;
private javax.swing.JLabel jLabel1;
private javax.swing.JMenu jMenu1;
private javax.swing.JMenu jMenu2;
private javax.swing.JMenu jMenu3;
private javax.swing.JMenu jMenu4;
private javax.swing.JMenuBar jMenuBar1;
private javax.swing.JMenuItem jMenuItem1;
private javax.swing.JMenuItem jMenuItem10;
private javax.swing.JMenuItem jMenuItem11;
private javax.swing.JMenuItem jMenuItem12;
private javax.swing.JMenuItem jMenuItem13;
private javax.swing.JMenuItem jMenuItem2;
private javax.swing.JMenuItem jMenuItem3;
private javax.swing.JMenuItem jMenuItem4;
private javax.swing.JMenuItem jMenuItem5;
private javax.swing.JMenuItem jMenuItem6;
private javax.swing.JMenuItem jMenuItem7;
private javax.swing.JMenuItem jMenuItem8;
private javax.swing.JMenuItem jMenuItem9;
}
```

Cus_insert.java:

```
import java.sql.*;
public class cus_insert extends javax.swing.JFrame {
    public cus_insert() {
        initComponents();
    }
    @SuppressWarnings("unchecked")
    private void initComponents() {
        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jButton1 = new javax.swing.JButton();
        jTextField1 = new javax.swing.JTextField();
        jTextField2 = new javax.swing.JTextField();

        setDefaultCloseOperation(javax.swing.WindowConstants.DISPOSE_ON_CLOSE);
        setTitle("insertion of customer details");
        jLabel1.setText("Customer Name:");
        jLabel1.setPreferredSize(new java.awt.Dimension(120, 40));
        jLabel2.setText("Customer id:");
        jLabel2.setPreferredSize(new java.awt.Dimension(120, 40));
        jButton1.setText("Submit");
        jButton1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton1ActionPerformed(evt);
            }
        });

        jTextField1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jTextField1ActionPerformed(evt);
            }
        });
        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(74, 74, 74)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```
                .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 110,
javax.swing.GroupLayout.PREFERRED_SIZE)

                .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))

            .addGap(31, 31, 31)

            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

                .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE, 113,
javax.swing.GroupLayout.PREFERRED_SIZE)

                .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE, 113,
javax.swing.GroupLayout.PREFERRED_SIZE))

            .addContainerGap(62, Short.MAX_VALUE))

        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()

            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

            .addComponent(jButton1)

            .addGap(153, 153, 153))

    );

    layout.setVerticalGroup(

       layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

        .addGroup(layout.createSequentialGroup()

            .addGap(59, 59, 59)

            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

                .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)

                .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))

            .addGap(18, 18, 18)

            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

                .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 34,
javax.swing.GroupLayout.PREFERRED_SIZE)

                .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))

            .addGap(31, 31, 31)

            .addComponent(jButton1)

            .addContainerGap(89, Short.MAX_VALUE))

    );


    pack();

    setLocationRelativeTo(null);

  }

  private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {


  }

  private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
```

```
    try{
                                                                    Class.forName("oracle.jdbc.OracleDriver");
                                    Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","leena","vasavi");
                                        Statement stmt=con.createStatement();
                                        System.out.println("Inserted Successfully..");


        int user_id=Integer.parseInt(jTextField1.getText());
                                        String user_name=jTextField2.getText();
                                        System.out.println(user_id+","+user_name);
                                        stmt.executeQuery("insert into customer values("+user_id+",'"+user_name+"')");
                                        con.close();
                    }
                    catch (Exception e) {
                            System.out.println("Error Occured!!"+e);
                    }
  }
  public static void main(String args[]) {
    try {
      for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
        if ("Nimbus".equals(info.getName())) {
          javax.swing.UIManager.setLookAndFeel(info.getClassName());
          break;
        }
      }
    } catch (ClassNotFoundException ex) {
      java.util.logging.Logger.getLogger(cus_insert.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (InstantiationException ex) {
      java.util.logging.Logger.getLogger(cus_insert.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (IllegalAccessException ex) {
      java.util.logging.Logger.getLogger(cus_insert.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {
      java.util.logging.Logger.getLogger(cus_insert.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    }
    java.awt.EventQueue.invokeLater(() -> {
      new cus_insert().setVisible(true);
    });
  }
  private javax.swing.JButton jButton1;
  private javax.swing.JLabel jLabel1;
```

```
    private javax.swing.JLabel jLabel2;
    private javax.swing.JTextField jTextField1;
    private javax.swing.JTextField jTextField2;
}
```

Cus_delete.java:

```
import java.sql.*;
public class cus_delete extends javax.swing.JFrame {
    public cus_delete() {
        initComponents();
    }
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();
        jTextField1 = new javax.swing.JTextField();
        jButton1 = new javax.swing.JButton();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        setTitle("deletion of customer details");

        jLabel1.setText("Customer id:");

        jButton1.setText("DELETE");
        jButton1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton1ActionPerformed(evt);
            }
        });
        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(layout.createSequentialGroup()
                        .addGap(74, 74, 74)
                        .addComponent(jLabel1)
                        .addGap(43, 43, 43)
                        .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE, 106,
javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGroup(layout.createSequentialGroup()
```

```
                .addGap(140, 140, 140)
                .addComponent(jButton1)))
            .addContainerGap(94, Short.MAX_VALUE))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(68, 68, 68)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel1)
                    .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(72, 72, 72)
                .addComponent(jButton1)
                .addContainerGap(102, Short.MAX_VALUE))
        );
        pack();
        setLocationRelativeTo(null);
    }
    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        try{
                                    //          t.setText("Deleted 1 row with did "+t3.getText());
                                                Class.forName("oracle.jdbc.OracleDriver");
                                                Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","leena","vasavi");
                                                Statement stmt=con.createStatement();
                                                int user_id=Integer.parseInt(jTextField1.getText());
                        System.out.println("Deleted Successfully..");
                                                stmt.executeQuery("delete from customer where user_id="+user_id+"");
                                    con.close();
                                    }
                                    catch(ClassNotFoundException | NumberFormatException | SQLException e){
                                                System.out.println("Error Occured!!"+e);
                                    }
    }
    public static void main(String args[]) {

        try {
            for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
```

```
                javax.swing.UIManager.setLookAndFeel(info.getClassName());
                break;
              }
            }
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(cus_delete.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(cus_delete.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(cus_delete.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(cus_delete.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        }
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
              new cus_delete().setVisible(true);
            } });    }
    private javax.swing.JButton jButton1;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JTextField jTextField1;
}
```

Cus_update:

```
import java.sql.*;
import javax.swing.JOptionPane;
public class cus_update extends javax.swing.JFrame {
    public cus_update() {
        initComponents();
    }
    private void initComponents() {
        jTextField1 = new javax.swing.JTextField();
        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jTextField2 = new javax.swing.JTextField();
        jButton1 = new javax.swing.JButton();
        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        setTitle("Updation of ingredients details");

        jTextField1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
```

```
        jTextField1ActionPerformed(evt);
    }});
jLabel1.setText("customer id");

jLabel2.setText("customer name");

jButton1.setText("MODIFY");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});
javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(layout.createSequentialGroup()
                        .addGap(72, 72, 72)
                        .addComponent(jLabel1))
                    .addGroup(layout.createSequentialGroup()
                        .addGap(62, 62, 62)
                        .addComponent(jLabel2)))
                .addGap(42, 42, 42)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                    .addComponent(jTextField2, javax.swing.GroupLayout.DEFAULT_SIZE, 95, Short.MAX_VALUE)
                    .addComponent(jTextField1)))
            .addGroup(layout.createSequentialGroup()
                .addGap(122, 122, 122)
                .addComponent(jButton1)))
        .addContainerGap(92, Short.MAX_VALUE))
);
layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
        .addGap(54, 54, 54)
```

```
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel1)
                .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(45, 45, 45)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jLabel2)
                .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(46, 46, 46)
            .addComponent(jButton1)
            .addContainerGap(54, Short.MAX_VALUE))
        );
        pack();
        setLocationRelativeTo(null);
    }
    private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {                                    }
    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        String user_name=jTextField2.getText();
        int user_id=Integer.parseInt(jTextField1.getText());
       // String y=year.getSelectedItem().toString();
        try{
            Class.forName("oracle.jdbc.OracleDriver");
            Connection con = DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","leena","vasavi");
            Statement stmt=con.createStatement();
            stmt.executeUpdate("update customer set user_name='"+user_name+"' where user_id="+user_id+"");
            JOptionPane.showMessageDialog(this,"Update Successful!");
        }
        catch(ClassNotFoundException | SQLException e)
        {
            System.out.println(e);
            JOptionPane.showMessageDialog(this,"There must be some problem!");
        }
        //action();
        jTextField1.setText("");
        jTextField2.setText("");
    }
    public static void main(String args[]) {
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
```

```
            if ("Nimbus".equals(info.getName())) {
                javax.swing.UIManager.setLookAndFeel(info.getClassName());
                break;
            }
        }
    } catch (ClassNotFoundException ex) {
        java.util.logging.Logger.getLogger(cus_update.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (InstantiationException ex) {
        java.util.logging.Logger.getLogger(cus_update.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (IllegalAccessException ex) {
        java.util.logging.Logger.getLogger(cus_update.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {
        java.util.logging.Logger.getLogger(cus_update.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    }

    java.awt.EventQueue.invokeLater(() -> {
        new cus_update().setVisible(true);
    });
}
  private javax.swing.JButton jButton1;
  private javax.swing.JLabel jLabel1;
  private javax.swing.JLabel jLabel2;
  private javax.swing.JTextField jTextField1;
  private javax.swing.JTextField jTextField2;}
```

Cus_view.java:

```
import java.sql.*;
import javax.swing.table.DefaultTableModel;
public class cus_view extends javax.swing.JFrame {
  ResultSet rs;
  public cus_view() {
    //database connection
    dbconnect();
    initComponents();
    putData();
    //table insert values
  }
  @SuppressWarnings("unchecked")
  private void initComponents() {
```

```
        jScrollPane1 = new javax.swing.JScrollPane();
        customerTable = new javax.swing.JTable();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        setTitle("View of customer details");

        customerTable.setModel(new javax.swing.table.DefaultTableModel(
            new Object [][] {
            },
            new String [] {
                "Customer ID", "Name"
            }
        ) {
            boolean[] canEdit = new boolean [] {
                false, false
            };
            public boolean isCellEditable(int rowIndex, int columnIndex) {
                return canEdit [columnIndex];
            }
        });
        customerTable.setShowHorizontalLines(true);
        customerTable.setShowVerticalLines(true);
        jScrollPane1.setViewportView(customerTable);
        if (customerTable.getColumnModel().getColumnCount() > 0) {
            customerTable.getColumnModel().getColumn(0).setResizable(false);
            customerTable.getColumnModel().getColumn(1).setResizable(false);
        }

        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(72, 72, 72)
                .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 463,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addContainerGap(110, Short.MAX_VALUE))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```
            .addGroup(layout.createSequentialGroup()
                .addGap(30, 30, 30)
                .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 298,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addContainerGap(53, Short.MAX_VALUE))
        );

        pack();
        setLocationRelativeTo(null);
    }
    void dbconnect()
    {
                try{

                                        Class.forName("oracle.jdbc.OracleDriver");
                                        Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","leena","vasavi");
                                        Statement stmt=con.createStatement();


                        rs = stmt.executeQuery("select * from customer");
                                }
                                catch(ClassNotFoundException | NumberFormatException | SQLException e){
                                        System.out.println("Error Occured!!"+e);
                                }
    }
    void putData(){
        try
        {
        DefaultTableModel model = (DefaultTableModel) customerTable.getModel();
        String id,name;
        while(rs.next())
        {
            id = rs.getString(1);
            name = rs.getString(2);
            String rowData[]={id,name};
            model.addRow(rowData);
        }}
        catch(Exception e)
        {
```

```
        }
    }

    public static void main(String args[]) {

        try {
            for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(cus_view.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(cus_view.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(cus_view.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(cus_view.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        }
        java.awt.EventQueue.invokeLater(() -> {
            new cus_view().setVisible(true);
        });
    }
    private javax.swing.JTable customerTable;
    private javax.swing.JScrollPane jScrollPane1;
}
```

Foodreipe_insert.java:

```
import java.sql.*;
public class foodrecipe_insert extends javax.swing.JFrame {
    public foodrecipe_insert() {
        this.initComponents();
    }
    @SuppressWarnings("unchecked")
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();
```

```
jLabel2 = new javax.swing.JLabel();
jTextField1 = new javax.swing.JTextField();
jTextField2 = new javax.swing.JTextField();
jButton1 = new javax.swing.JButton();
jLabel3 = new javax.swing.JLabel();
jTextField3 = new javax.swing.JTextField();

setDefaultCloseOperation(javax.swing.WindowConstants.DISPOSE_ON_CLOSE);
setTitle("insertion of food  recipe details");

jLabel1.setText("Food Recipe id:");

jLabel2.setText("Food Recipe Name:");

jButton1.setText("SUBMIT");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});
jLabel3.setText("Customer id:");
javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(74, 74, 74)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel1)
                    .addComponent(jLabel2)
                    .addComponent(jLabel3))
                .addGap(30, 30, 30)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                    .addComponent(jTextField1, javax.swing.GroupLayout.DEFAULT_SIZE, 102, Short.MAX_VALUE)
                    .addComponent(jTextField2)
                    .addComponent(jTextField3)))
            .addGroup(layout.createSequentialGroup()
```

```
                .addGap(167, 167, 167)
                .addComponent(jButton1)))
            .addContainerGap(114, Short.MAX_VALUE))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(54, 54, 54)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel1)
                    .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 20, Short.MAX_VALUE)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel3)
                    .addComponent(jTextField3, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(18, 18, 18)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel2)
                    .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(35, 35, 35)
                .addComponent(jButton1)
                .addGap(57, 57, 57))
        );
        pack();
        setLocationRelativeTo(null);
    }
    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
try{
                                        Class.forName("oracle.jdbc.OracleDriver");
                                    Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","leena","vasavi");
                                        Statement stmt=con.createStatement();
                                        System.out.println("Inserted Successfully...");
                    int food_id=Integer.parseInt(jTextField1.getText());
                    int user_id=Integer.parseInt(jTextField3.getText());
                                        String food_name=jTextField2.getText();
```

```
                stmt.executeQuery("insert into food_recipe values("+food_id+","+user_id+",'"+food_name+"')");



                                        con.close();
                        }
                        catch (ClassNotFoundException | NumberFormatException | SQLException e) {
                                System.out.println("Error Occured!!"+e);
                        }
    }
    public static void main(String args[]) {
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_insert.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_insert.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_insert.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_insert.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        }
        java.awt.EventQueue.invokeLater(() -> {
            new foodrecipe_insert().setVisible(true);
        });
    }
    private javax.swing.JButton jButton1;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JTextField jTextField1;
    private javax.swing.JTextField jTextField2;
    private javax.swing.JTextField jTextField3;
    private static class jTextField3 {
```

```
    private static String getText() {
        throw new UnsupportedOperationException("Not supported yet.");
    }
    public jTextField3() {
    }   }}
```

Foodrecipe_delete.java:

```
import java.sql.*;
public class foodrecipe_delete extends javax.swing.JFrame {
   public foodrecipe_delete() {
      initComponents();
   }
   private void initComponents() {
      jLabel2 = new javax.swing.JLabel();
      jTextField1 = new javax.swing.JTextField();
      jButton1 = new javax.swing.JButton();
      jLabel1 = new javax.swing.JLabel();
      jTextField2 = new javax.swing.JTextField();
      setDefaultCloseOperation(javax.swing.WindowConstants.DISPOSE_ON_CLOSE);
      setTitle("deletion of food recipe ");
      jLabel2.setText("Food Recipe id:");
      jButton1.setText("DELETE");
      jButton1.addActionListener(new java.awt.event.ActionListener() {
         public void actionPerformed(java.awt.event.ActionEvent evt) {
            jButton1ActionPerformed(evt);
         }
      });

      jLabel1.setText("customer id:");
      javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
      getContentPane().setLayout(layout);
      layout.setHorizontalGroup(
         layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
         .addGroup(layout.createSequentialGroup()
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
               .addGroup(layout.createSequentialGroup()
                  .addGap(120, 120, 120)
                  .addComponent(jButton1))
               .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)
                  .addGroup(layout.createSequentialGroup()
```

```
                    .addGap(60, 60, 60)

                    .addComponent(jLabel1)

                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

                    .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE, 95,
javax.swing.GroupLayout.PREFERRED_SIZE))

                .addGroup(layout.createSequentialGroup()

                    .addGap(52, 52, 52)

                    .addComponent(jLabel2)

                    .addGap(48, 48, 48)

                    .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE, 96,
javax.swing.GroupLayout.PREFERRED_SIZE))))

            .addContainerGap(284, Short.MAX_VALUE))

        );

        layout.setVerticalGroup(

          layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

          .addGroup(layout.createSequentialGroup()

            .addGap(67, 67, 67)

            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

              .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

              .addComponent(jLabel2))

            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

              .addComponent(jLabel1)

              .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))

            .addGap(11, 11, 11)

            .addComponent(jButton1)

            .addContainerGap(123, Short.MAX_VALUE))

        );


        pack();

        setLocationRelativeTo(null);

    }

    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

 try{

                                            Class.forName("oracle.jdbc.OracleDriver");

                                            Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","leena","vasavi");

                                            Statement stmt=con.createStatement();

                                            int food_id=Integer.parseInt(jTextField1.getText());
```

```
                int user_id=Integer.parseInt(jTextField2.getText());
                  System.out.println("Deleted Successfully...");
                                        stmt.executeQuery("delete from food_recipe where food_id='"+food_id+"'and
user_id='"+user_id+"'");

                                    con.close();
                                }
                                catch(ClassNotFoundException | NumberFormatException | SQLException e){
                                        System.out.println("Error Occured!!"+e);
                                }
    }


    public static void main(String args[]) {

        try {
            for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_delete.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_delete.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_delete.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_delete.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        }
        java.awt.EventQueue.invokeLater(() -> {
            new foodrecipe_delete().setVisible(true);
        });
    }
    private javax.swing.JButton jButton1;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JTextField jTextField1;
    private javax.swing.JTextField jTextField2;
```

```
}
```

Foodrecipe_update.java:

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
import java.sql.Statement;
import javax.swing.JOptionPane;
public class foodrecipe_update extends javax.swing.JFrame {

    public foodrecipe_update() {
        initComponents();
    }

    @SuppressWarnings("unchecked")
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();
        jTextField1 = new javax.swing.JTextField();
        jLabel2 = new javax.swing.JLabel();
        jTextField2 = new javax.swing.JTextField();
        jLabel3 = new javax.swing.JLabel();
        jTextField3 = new javax.swing.JTextField();
        jButton1 = new javax.swing.JButton();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        setTitle("updation of foodrecipe details");

        jLabel1.setText("food id");

        jLabel2.setText("user id");

        jTextField2.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jTextField2ActionPerformed(evt);
            }
        });

        jLabel3.setText("food name");
```

```
        jButton1.setText("MODIFY");
        jButton1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton1ActionPerformed(evt);
            }
        });

        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(90, 90, 90)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                    .addComponent(jLabel3)
                    .addComponent(jLabel2)
                    .addComponent(jLabel1))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 86, Short.MAX_VALUE)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                    .addComponent(jTextField1, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, 99, Short.MAX_VALUE)
                    .addComponent(jTextField2, javax.swing.GroupLayout.Alignment.TRAILING)
                    .addComponent(jTextField3, javax.swing.GroupLayout.Alignment.TRAILING))
                .addGap(60, 60, 60))
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()
                .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(jButton1)
                .addGap(149, 149, 149))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(56, 56, 56)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel1)
                    .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(24, 24, 24)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel2)
```

```
                .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(22, 22, 22)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel3)
                .addComponent(jTextField3, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(34, 34, 34)
            .addComponent(jButton1)
            .addContainerGap(64, Short.MAX_VALUE))
        );

        pack();
        setLocationRelativeTo(null);
    }

    private void jTextField2ActionPerformed(java.awt.event.ActionEvent evt) {
    }
    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
          String fname=jTextField3.getText();
        int user_id=Integer.parseInt(jTextField2.getText());
        int food_id=Integer.parseInt(jTextField1.getText());
        try{
            Class.forName("oracle.jdbc.OracleDriver");
            Connection con = DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","leena","vasavi");
            Statement stmt=con.createStatement();
              stmt.executeQuery("update food_recipe set user_id="+user_id+",fname='"+fname+"' where food_id="+food_id+"");
            JOptionPane.showMessageDialog(this,"Update Successful!");
        }
        catch(ClassNotFoundException | SQLException e)
        {
            System.out.println(e);
            JOptionPane.showMessageDialog(this,"There must be some problem!");
        }
        jTextField1.setText("");
        jTextField2.setText("");
jTextField3.setText("");        }
    public static void main(String args[]) {

        try {
```

```
            for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;} }
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_update.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_update.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_update.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_update.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        }
        java.awt.EventQueue.invokeLater(() -> {
            new foodrecipe_update().setVisible(true);
        });
    }
    private javax.swing.JButton jButton1;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JTextField jTextField1;
    private javax.swing.JTextField jTextField2;
    private javax.swing.JTextField jTextField3;
}
```

Foodrecipe_view.java:

```
import java.sql.*;
import javax.swing.table.DefaultTableModel;

public class foodrecipe_view extends javax.swing.JFrame {
ResultSet rs;

    public foodrecipe_view() {
        dbconnect();
        initComponents();
        putData();
    }
```

```
@SuppressWarnings("unchecked")

private void initComponents() {

  jScrollPane1 = new javax.swing.JScrollPane();
  FoodrecipeTable = new javax.swing.JTable();

  setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
  setTitle("View of food recipe details");

  FoodrecipeTable.setModel(new javax.swing.table.DefaultTableModel(
    new Object [][] {

    },
    new String [] {
      "Food_id", "Customer_id", "Food Name"
    }
  ) {
    boolean[] canEdit = new boolean [] {
      false, false, false
    };

    public boolean isCellEditable(int rowIndex, int columnIndex) {
      return canEdit [columnIndex];
    }
  });
  jScrollPane1.setViewportView(FoodrecipeTable);
  if (FoodrecipeTable.getColumnModel().getColumnCount() > 0) {
    FoodrecipeTable.getColumnModel().getColumn(0).setResizable(false);
    FoodrecipeTable.getColumnModel().getColumn(1).setResizable(false);
    FoodrecipeTable.getColumnModel().getColumn(2).setResizable(false);
  }

  javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
  getContentPane().setLayout(layout);
  layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
      .addContainerGap()
```

```
            .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 344,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addContainerGap(19, Short.MAX_VALUE))
        );
        layout.setVerticalGroup(
           layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
           .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()
              .addContainerGap(19, Short.MAX_VALUE)
              .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 225,
javax.swing.GroupLayout.PREFERRED_SIZE)
              .addContainerGap())
        );

        pack();
        setLocationRelativeTo(null);
    }
void dbconnect()
    {
                try{

                                        Class.forName("oracle.jdbc.OracleDriver");
                                        Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","leena","vasavi");
                                        Statement stmt=con.createStatement();


                        rs = stmt.executeQuery("select * from food_recipe");
                                }
                                catch(ClassNotFoundException | NumberFormatException | SQLException e){
                                        System.out.println("Error Occured!!"+e);
                                }
    }
void putData()
    {
        try
        {
        DefaultTableModel model = (DefaultTableModel) FoodrecipeTable.getModel();
        String fid,uid,fname;
        while(rs.next())
        {
           fid = rs.getString(1);
```

```
            uid = rs.getString(2);
            fname = rs.getString(3);

            String rowData[]={fid,uid,fname};
            model.addRow(rowData);
        }
        }
        catch(Exception e)
        {
        }
    }
    public static void main(String args[]) {
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_view.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_view.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_view.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(foodrecipe_view.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        }
        java.awt.EventQueue.invokeLater(() -> {
            new foodrecipe_view().setVisible(true);
        });
    }
    private javax.swing.JTable FoodrecipeTable;
    private javax.swing.JScrollPane jScrollPane1;
}
```

Ingredients_insert.java:

```
import java.sql.*;
public class ingredients_insert extends javax.swing.JFrame {
  public ingredients_insert() {
```

```
    initComponents();
}
@SuppressWarnings("unchecked")
private void initComponents() {
    jLabel4 = new javax.swing.JLabel();
    jLabel1 = new javax.swing.JLabel();
    jButton1 = new javax.swing.JButton();
    jTextField1 = new javax.swing.JTextField();
    jLabel2 = new javax.swing.JLabel();
    jTextField2 = new javax.swing.JTextField();
    jTextField3 = new javax.swing.JTextField();
    jLabel3 = new javax.swing.JLabel();

    jLabel4.setText("jLabel4");

    setTitle("insertion of ingredients details");

    jLabel1.setText("Ingredients Name:");

    jButton1.setText("SUBMIT");
    jButton1.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            jButton1ActionPerformed(evt);
        }
    });
    jLabel2.setText("Food id:");
    jLabel3.setText("Grading:");

    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addGap(132, 132, 132)
                    .addComponent(jButton1))
                .addGroup(layout.createSequentialGroup()
                    .addGap(51, 51, 51)
```

```
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel1)
                    .addComponent(jLabel2)
                    .addComponent(jLabel3))
                .addGap(84, 84, 84)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                    .addComponent(jTextField1, javax.swing.GroupLayout.DEFAULT_SIZE, 120, Short.MAX_VALUE)
                    .addComponent(jTextField2)
                    .addComponent(jTextField3))))
            .addContainerGap(24, Short.MAX_VALUE))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(layout.createSequentialGroup()
                        .addGap(56, 56, 56)
                        .addComponent(jLabel1))
                    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()
                        .addContainerGap()
                        .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addGap(22, 22, 22)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel2)
                    .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 33, Short.MAX_VALUE)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jTextField3, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel3))
                .addGap(40, 40, 40)
                .addComponent(jButton1)
                .addGap(63, 63, 63))
        );

        pack();
        setLocationRelativeTo(null);
    }
```

```
    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
     try{


                                                Class.forName("oracle.jdbc.OracleDriver");
                                            Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","leena","vasavi");
                                                Statement stmt=con.createStatement();
            int food_id=Integer.parseInt(jTextField2.getText());
                                                String ing_name=jTextField1.getText();
                                                int grading=Integer.parseInt(jTextField3.getText());
                                                System.out.println("Inserted Successfully...");
                                                stmt.executeQuery("insert into ingredients
values("+food_id+",'"+ing_name+"',"+grading+")");


                                                con.close();
                            }
                            catch (Exception e) {
                                    System.out.println("Error Occured!!"+e);
                            }
    }
    public static void main(String args[]) {
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(ingredients_insert.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(ingredients_insert.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(ingredients_insert.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(ingredients_insert.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        }
        //</editor-fold>


        /* Create and display the form */
```

```
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new ingredients_insert().setVisible(true);
            }
        });
    }
    // Variables declaration - do not modify
    private javax.swing.JButton jButton1;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JLabel jLabel4;
    private javax.swing.JTextField jTextField1;
    private javax.swing.JTextField jTextField2;
    private javax.swing.JTextField jTextField3;
    // End of variables declaration
}
```

Ingredients_delete.java:

```
import java.sql.*;

public class ingredients_delete extends javax.swing.JFrame {

    public ingredients_delete() {
        initComponents();
    }
    @SuppressWarnings("unchecked")
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jTextField1 = new javax.swing.JTextField();
        jTextField2 = new javax.swing.JTextField();
        jButton1 = new javax.swing.JButton();
        jPanel1 = new javax.swing.JPanel();
        jLabel3 = new javax.swing.JLabel();
        jButton2 = new javax.swing.JButton();

        setDefaultCloseOperation(javax.swing.WindowConstants.DISPOSE_ON_CLOSE);
        setTitle("deletion of ingredient details");
```

```
jLabel1.setText("Ingredients Name:");

jLabel2.setText("Food id:");

jTextField1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField1ActionPerformed(evt);
    }
});

jButton1.setText("DELETE");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});

jPanel1.setBackground(new java.awt.Color(255, 255, 255));

jLabel3.setText("Click View to see ingredients details:");

jButton2.setText("VIEW");

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
jPanel1.setLayout(jPanel1Layout);
jPanel1Layout.setHorizontalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(jPanel1Layout.createSequentialGroup()
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addContainerGap()
                .addComponent(jLabel3))
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(82, 82, 82)
                .addComponent(jButton2)))
        .addContainerGap(16, Short.MAX_VALUE))
);
jPanel1Layout.setVerticalGroup(
```

```
        jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addGap(44, 44, 44)
            .addComponent(jLabel3)
            .addGap(30, 30, 30)
            .addComponent(jButton2)
            .addContainerGap(64, Short.MAX_VALUE))
    );

    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addGap(39, 39, 39)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)
                        .addGroup(layout.createSequentialGroup()
                            .addComponent(jLabel1)
                            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                            .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE, 103,
javax.swing.GroupLayout.PREFERRED_SIZE))
                        .addGroup(javax.swing.GroupLayout.Alignment.LEADING, layout.createSequentialGroup()
                            .addComponent(jLabel2)
                            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                            .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE, 104,
javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)))
                    .addGap(91, 91, 91)
                    .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGroup(layout.createSequentialGroup()
                    .addGap(107, 107, 107)
                    .addComponent(jButton1)))
            .addGap(22, 22, 22))
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```
        .addGroup(layout.createSequentialGroup()
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addGap(51, 51, 51)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                        .addComponent(jLabel1)
                        .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGap(26, 26, 26)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                        .addComponent(jLabel2)
                        .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addGroup(layout.createSequentialGroup()
                    .addGap(38, 38, 38)
                    .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addGap(7, 7, 7)
            .addComponent(jButton1)
            .addContainerGap(88, Short.MAX_VALUE))
        );

        pack();
        setLocationRelativeTo(null);
    }
    private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {

    }
    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        try{
                                        Class.forName("oracle.jdbc.OracleDriver");
                                        Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","leena","vasavi");
                                        Statement stmt=con.createStatement();
                    String ing_name=jTextField1.getText();
                                        int food_id=Integer.parseInt(jTextField2.getText());
                      System.out.println("Deleted Successfully...");
                                        stmt.executeQuery("delete from ingredients where ing_name='"+ing_name+"'and
food_id='"+food_id+"'");

                                con.close();
```

```
                                        }
                                        catch(ClassNotFoundException | NumberFormatException | SQLException e){
                                                System.out.println("Error Occured!!"+e);
                                        }
    }
    public static void main(String args[]) {
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(ingredients_delete.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(ingredients_delete.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(ingredients_delete.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(ingredients_delete.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        }
        java.awt.EventQueue.invokeLater(() -> {
            new ingredients_delete().setVisible(true);
        });
    }
    private javax.swing.JButton jButton1;
    private javax.swing.JButton jButton2;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JPanel jPanel1;
    private javax.swing.JTextField jTextField1;
    private javax.swing.JTextField jTextField2;
}
```

Ingredients_update.java:

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
```

```
import java.sql.Statement;
import javax.swing.JOptionPane;

public class ingredients_update extends javax.swing.JFrame {

    public ingredients_update() {
        initComponents();
    }
    @SuppressWarnings("unchecked")
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();
        jTextField1 = new javax.swing.JTextField();
        jLabel2 = new javax.swing.JLabel();
        jTextField2 = new javax.swing.JTextField();
        jLabel3 = new javax.swing.JLabel();
        jTextField3 = new javax.swing.JTextField();
        jButton1 = new javax.swing.JButton();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        setTitle("updation of ingredients details");

        jLabel1.setText("ingredients name:");

        jTextField1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jTextField1ActionPerformed(evt);
            }
        });

        jLabel2.setText("Food name:");

        jLabel3.setText("grading:");

        jTextField3.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jTextField3ActionPerformed(evt);
            }
        });
```

```
        jButton1.setText("MODIFY");
        jButton1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton1ActionPerformed(evt);
            }
        });

        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(layout.createSequentialGroup()
                        .addGap(66, 66, 66)
                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addComponent(jLabel3)
                            .addComponent(jLabel1)
                            .addComponent(jLabel2))
                        .addGap(64, 64, 64)
                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                            .addComponent(jTextField1)
                            .addComponent(jTextField2)
                            .addComponent(jTextField3, javax.swing.GroupLayout.DEFAULT_SIZE, 122, Short.MAX_VALUE)))
                    .addGroup(layout.createSequentialGroup()
                        .addGap(146, 146, 146)
                        .addComponent(jButton1)))
                .addContainerGap(30, Short.MAX_VALUE))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(59, 59, 59)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel1)
                    .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(25, 25, 25)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
```

```
                .addComponent(jLabel2)
                .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(30, 30, 30)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel3)
                .addComponent(jTextField3, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 40, Short.MAX_VALUE)
            .addComponent(jButton1)
            .addGap(50, 50, 50))
        );

        pack();
        setLocationRelativeTo(null);
    }// </editor-fold>

    private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
    }

    private void jTextField3ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
    }

    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
            String iname=jTextField1.getText();
            String fname=jTextField2.getText();
        int g=Integer.parseInt(jTextField3.getText());
       // String y=year.getSelectedItem().toString();
        try{
            Class.forName("oracle.jdbc.OracleDriver");
            Connection con = DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","leena","vasavi");
            Statement stmt=con.createStatement();
            stmt.executeUpdate("update customer set  g="+g+",fname='"+fname+"' where iname='"+iname+"'");
            JOptionPane.showMessageDialog(this,"Update Successful!");
        }
        catch(ClassNotFoundException | SQLException e)
        {
            System.out.println(e);
```

```
            JOptionPane.showMessageDialog(this,"There must be some problem!");
        }
        jTextField1.setText("");
        jTextField2.setText("");
    }

    public static void main(String args[]) {

        try {
            for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(ingredients_update.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(ingredients_update.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(ingredients_update.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(ingredients_update.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        }
        java.awt.EventQueue.invokeLater(() -> {
            new ingredients_update().setVisible(true);
        });
    }
    private javax.swing.JButton jButton1;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JTextField jTextField1;
    private javax.swing.JTextField jTextField2;
    private javax.swing.JTextField jTextField3;
}
```

Ingedients_view.java:

```
import java.sql.*;
import javax.swing.table.DefaultTableModel;
```

```
public class ingredients_view extends javax.swing.JFrame {
ResultSet rs;

    public ingredients_view() {

        dbconnect();
        initComponents();
        putData();

    }
    @SuppressWarnings("unchecked")

    private void initComponents() {

        jScrollPane1 = new javax.swing.JScrollPane();
        IngredientsTable = new javax.swing.JTable();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        setTitle("View of ingredients details");

        IngredientsTable.setModel(new javax.swing.table.DefaultTableModel(
            new Object [][] {

            },
            new String [] {
                "Food id",  "Ingredient Name" , "grading"
            }
        ) {
            boolean[] canEdit = new boolean [] {
                false, false, false
            };

            public boolean isCellEditable(int rowIndex, int columnIndex) {
                return canEdit [columnIndex];
            }
        });
        jScrollPane1.setViewportView(IngredientsTable);
        if (IngredientsTable.getColumnModel().getColumnCount() > 0) {
            IngredientsTable.getColumnModel().getColumn(0).setResizable(false);
```

```
        IngredientsTable.getColumnModel().getColumn(1).setResizable(false);
        IngredientsTable.getColumnModel().getColumn(2).setResizable(false);
    }

    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addContainerGap()
            .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 426,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addContainerGap(19, Short.MAX_VALUE))
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGap(16, 16, 16)
            .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 225,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addContainerGap(16, Short.MAX_VALUE))
    );

    pack();
    setLocationRelativeTo(null);
  }
void dbconnect()
  {
            try{
                                        Class.forName("oracle.jdbc.OracleDriver");
                                        Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","leena","vasavi");
                                        Statement stmt=con.createStatement();


                    rs = stmt.executeQuery("select * from ingredients");
                                }
                                catch(ClassNotFoundException | NumberFormatException | SQLException e){
                                        System.out.println("Error Occured!!"+e);
                                }
  }
```

```
void putData()
   {
      try
      {
      DefaultTableModel model = (DefaultTableModel) IngredientsTable.getModel();
      String fid,ingname,grading;
      while(rs.next())
      {
         fid = rs.getString(1);
         ingname = rs.getString(2);
         grading = rs.getString(3);

         String rowData[]={fid,ingname,grading};
         model.addRow(rowData);
      }
      }
       catch(Exception e)
      {
      }
   }
  public static void main(String args[]) {
      java.awt.EventQueue.invokeLater(() -> {
         new ingredients_view().setVisible(true);
      });
   }
   private javax.swing.JTable IngredientsTable;
   private javax.swing.JScrollPane jScrollPane1;
}
```

Calculate.java:

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;

public class Calculate extends javax.swing.JFrame {
   ResultSet rs;
   Statement stmt;
   Connection con;
```

```
public Calculate() {
    dbconnect();
    initComponents();
}
@SuppressWarnings("unchecked")
private void initComponents() {
    jLabel1 = new javax.swing.JLabel();
    jTextField1 = new javax.swing.JTextField();
    jLabel2 = new javax.swing.JLabel();
    jButton1 = new javax.swing.JButton();
    jLabel3 = new javax.swing.JLabel();
    jLabel4 = new javax.swing.JLabel();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
    setTitle("Food quality percentage calculator");

    jLabel1.setFont(new java.awt.Font("Serif", 1, 18));
    jLabel1.setForeground(new java.awt.Color(204, 0, 0));
    jLabel1.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
    jLabel1.setText("Enter Food Recipe to calculate its food percentage");
    jLabel1.setPreferredSize(new java.awt.Dimension(400, 51));

    jLabel2.setFont(new java.awt.Font("Segoe UI", 1, 17));
    jLabel2.setForeground(new java.awt.Color(0, 153, 153));
    jLabel2.setText("Food Recipe:");

    jButton1.setFont(new java.awt.Font("Segoe UI", 1, 17));
    jButton1.setForeground(new java.awt.Color(51, 0, 51));
    jButton1.setText("Calculate");
    jButton1.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            jButton1ActionPerformed(evt);
        }
    });

    jLabel3.setFont(new java.awt.Font("SansSerif", 1, 18));
    jLabel3.setForeground(new java.awt.Color(153, 0, 102));
    jLabel3.setText("Food Quality Percentage:  ");
```

```
        jLabel4.setFont(new java.awt.Font("SansSerif", 1, 18));


        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(layout.createSequentialGroup()
                        .addGap(112, 112, 112)
                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addGroup(layout.createSequentialGroup()
                                .addComponent(jLabel2)
                                .addGap(60, 60, 60)
                                .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE, 132,
javax.swing.GroupLayout.PREFERRED_SIZE))
                            .addGroup(layout.createSequentialGroup()
                                .addGap(76, 76, 76)
                                .addComponent(jButton1))))
                    .addGroup(layout.createSequentialGroup()
                        .addGap(45, 45, 45)
                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addGroup(layout.createSequentialGroup()
                                .addComponent(jLabel3)
                                .addGap(27, 27, 27)
                                .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE, 83,
javax.swing.GroupLayout.PREFERRED_SIZE))
                            .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 415,
javax.swing.GroupLayout.PREFERRED_SIZE))))
                .addContainerGap(58, Short.MAX_VALUE))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(35, 35, 35)
                .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(43, 43, 43)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel2)
```

```
                .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))

            .addGap(40, 40, 40)

            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)

                .addComponent(jLabel4, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)

                .addComponent(jLabel3, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))

            .addGap(40, 40, 40)

            .addComponent(jButton1)

            .addContainerGap(63, Short.MAX_VALUE))

        );


        pack();

        setLocationRelativeTo(null);

    }


    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {


        try

        {

        String name = jTextField1.getText();

        System.out.print(name);

        String q = "select avg(grading) from ingredients i inner join food_recipe f on i.food_id= f.food_id where
food_name='"+name+"'";

         stmt=con.createStatement();


        rs = stmt.executeQuery(q);

        rs.next();

        float p = Float.parseFloat(rs.getString(1)) * 10;

        jLabel4.setText(p+"%");

        }


        catch(Exception e){

        System.out.print(e);

        }

    }


    void dbconnect()

    {

                try{
```

```
                                        Class.forName("oracle.jdbc.OracleDriver");

con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","leena","vasavi");
                                }
                                catch(ClassNotFoundException | NumberFormatException | SQLException e){
                                        System.out.println("Error Occured!!"+e);
                                }
    }

    public static void main(String args[]) {

        try {
            for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(Calculate.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(Calculate.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(Calculate.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(Calculate.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        }
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new Calculate().setVisible(true);
            }
        });
    }
    private javax.swing.JButton jButton1;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JLabel jLabel4;
    private javax.swing.JTextField jTextField1;
```

}

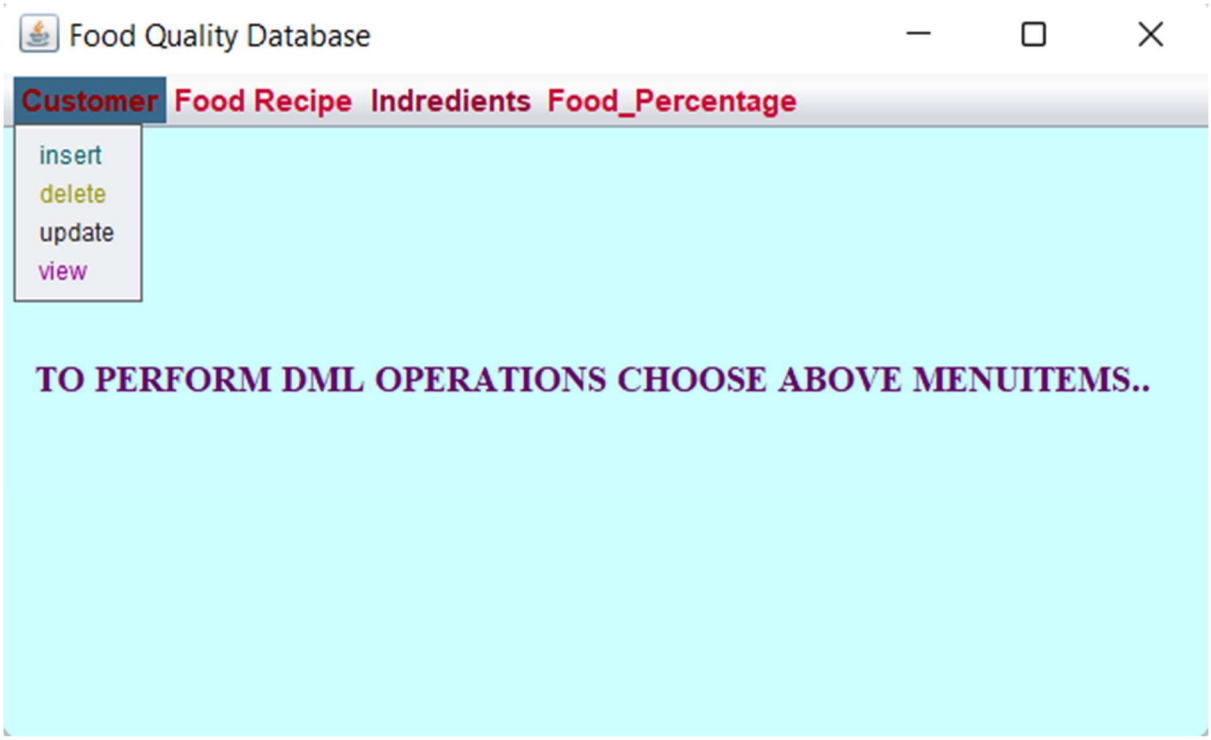
GitHub Links and Folder Structure

Link: https://github.com/1602-20-737-020-leena/Food-Quality-Database

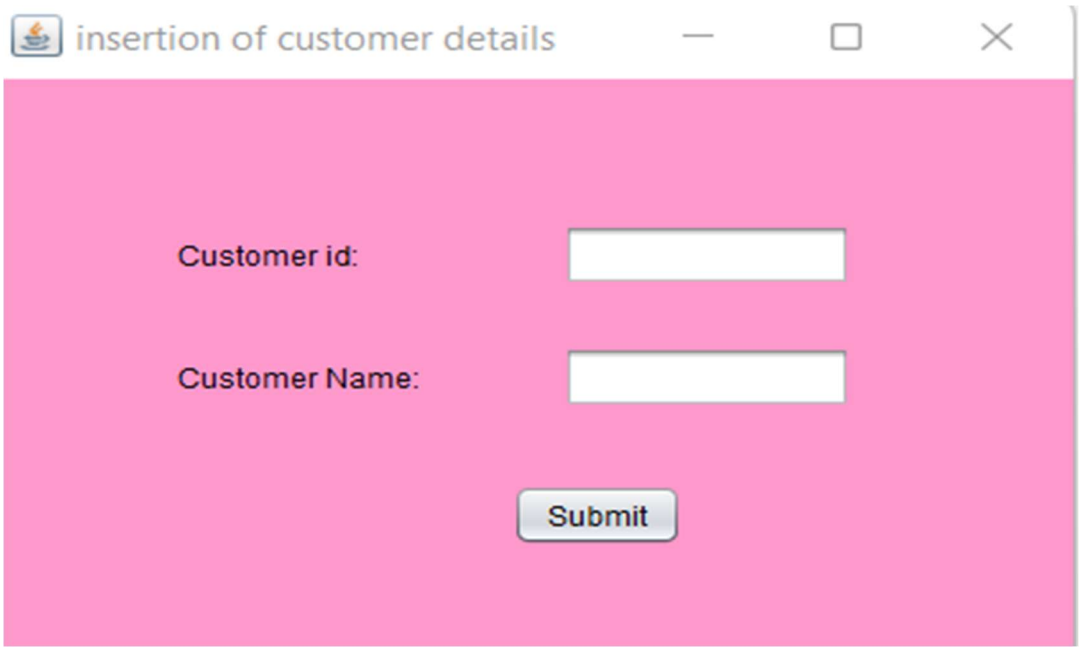
TESTING:

Mainpage1:

By choosing any of the entities, respective dml operations will be displayed. So that as per requirement choose the one and perform them. i.e., insert, delete, update and view.

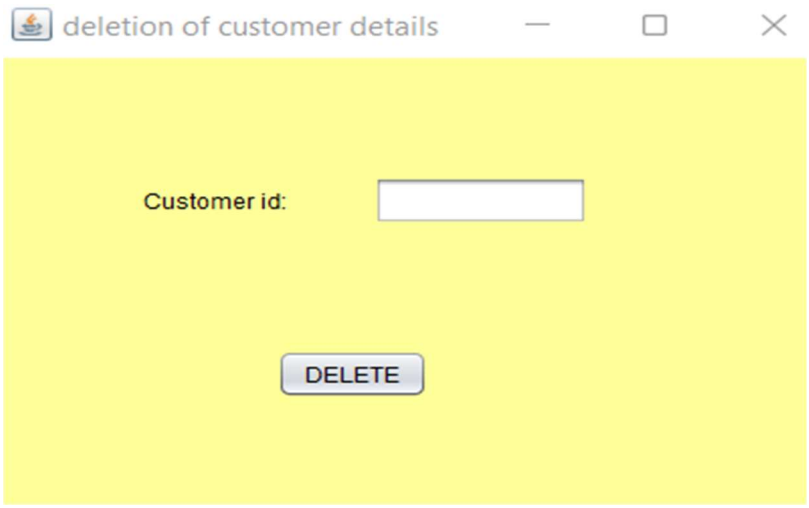


Customer_insert:

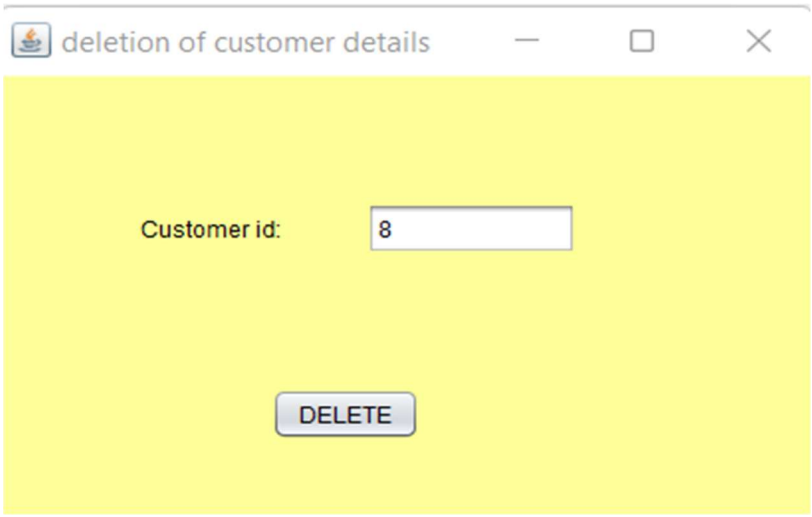


To insert values into customer table enter in the above textfield and submit.

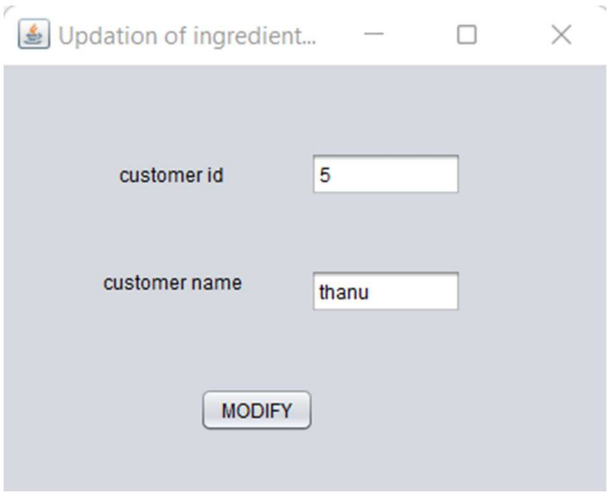
Customer_delete:



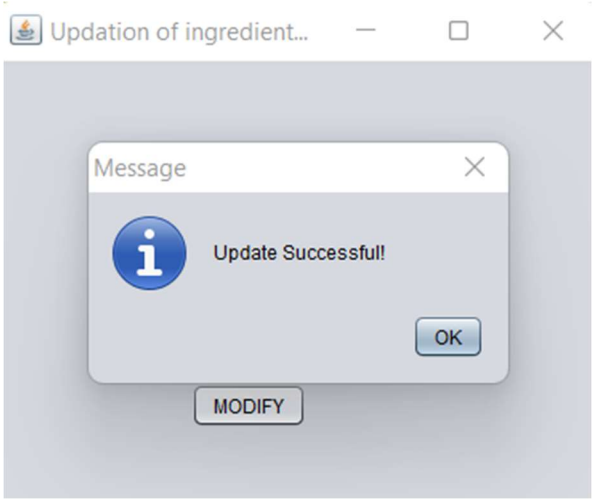
To delete particular customer details enter his id to delete him from database.



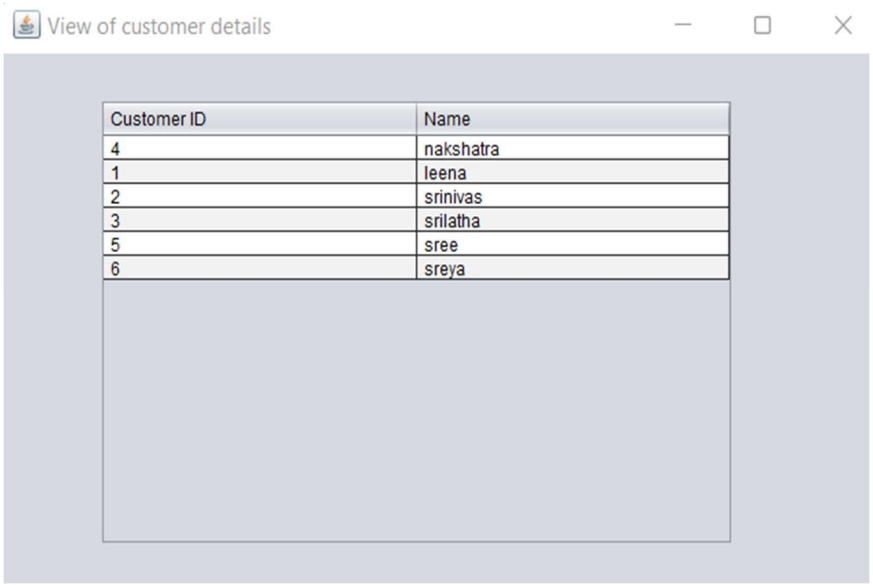
Customer_update:



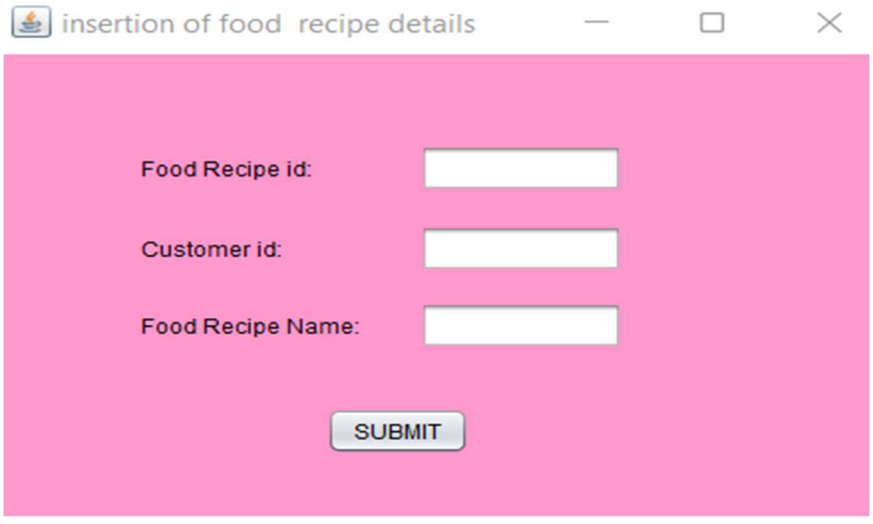
After clicking on modify, changes will be modified.



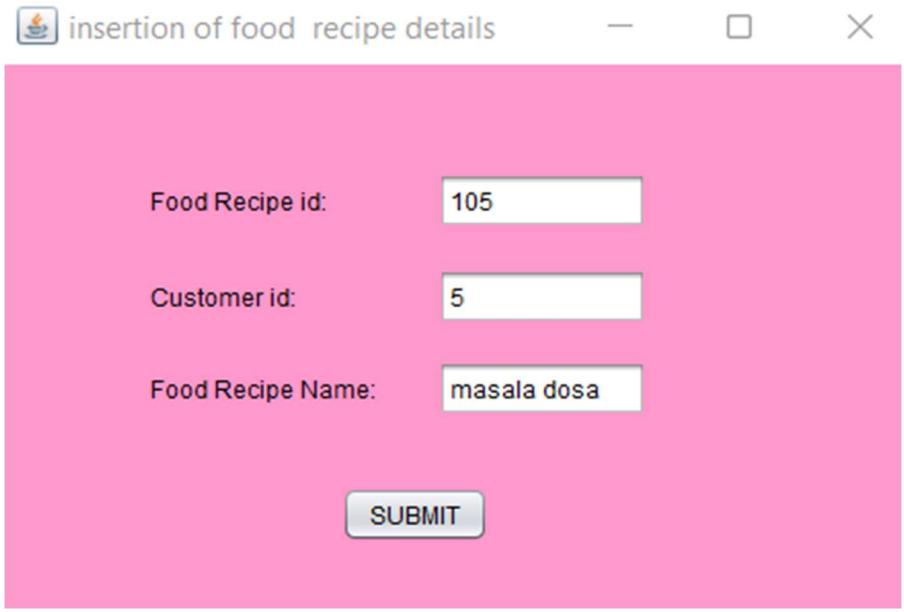
Customer_view: retrieving the customer details



Foodrecipe_insert:



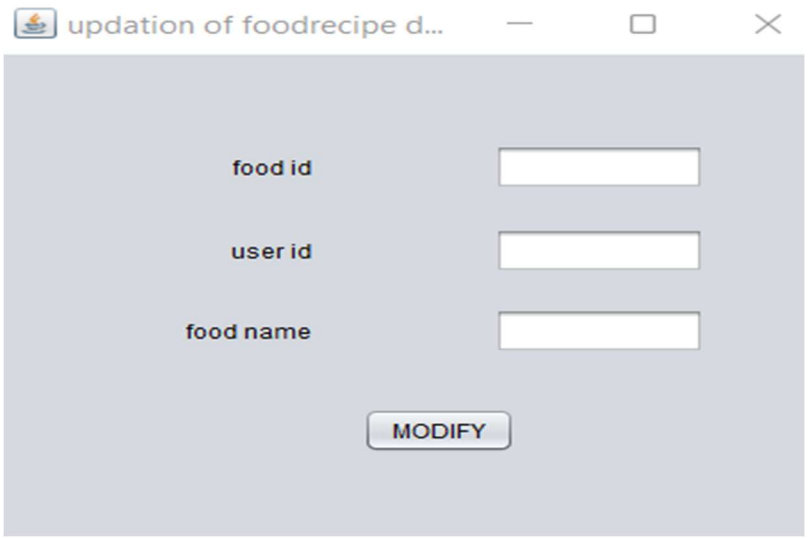
To insert values into customer table enter in the above textfield and submit.

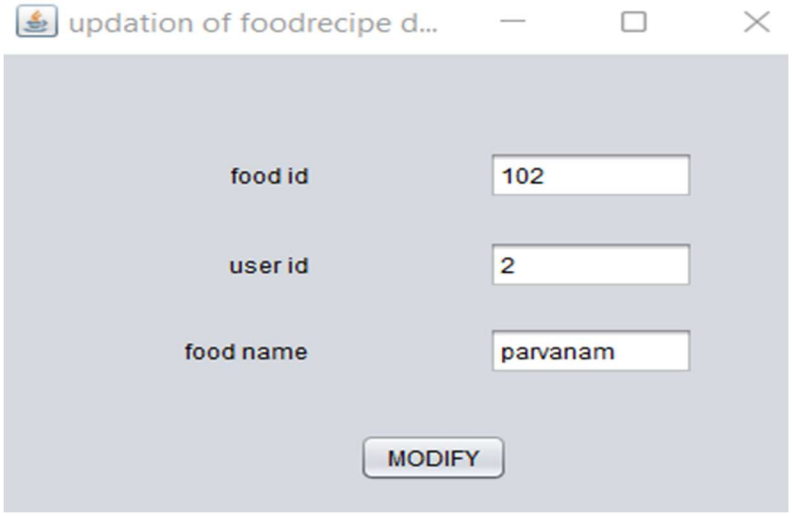


Foodrecipe_delete:

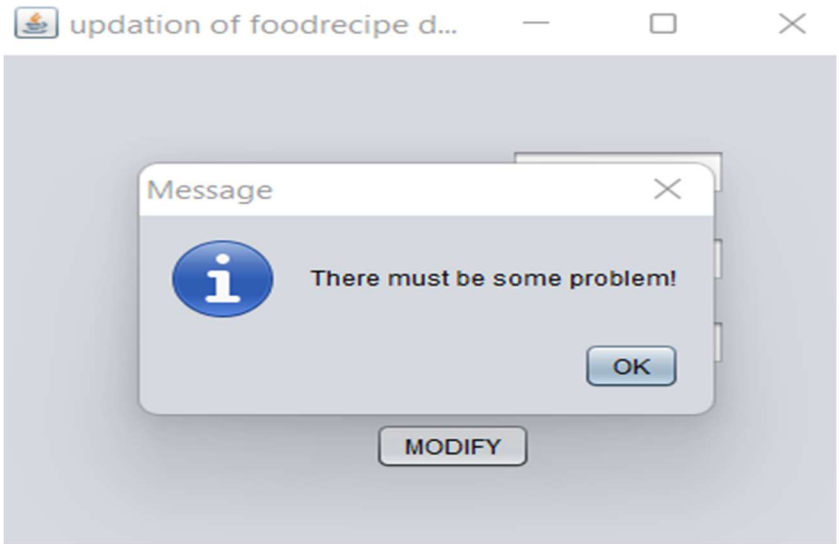
To delete particular foodrecipe details enter foodrecipe id and customer id to delete it from database.

Foodrecipe_update:



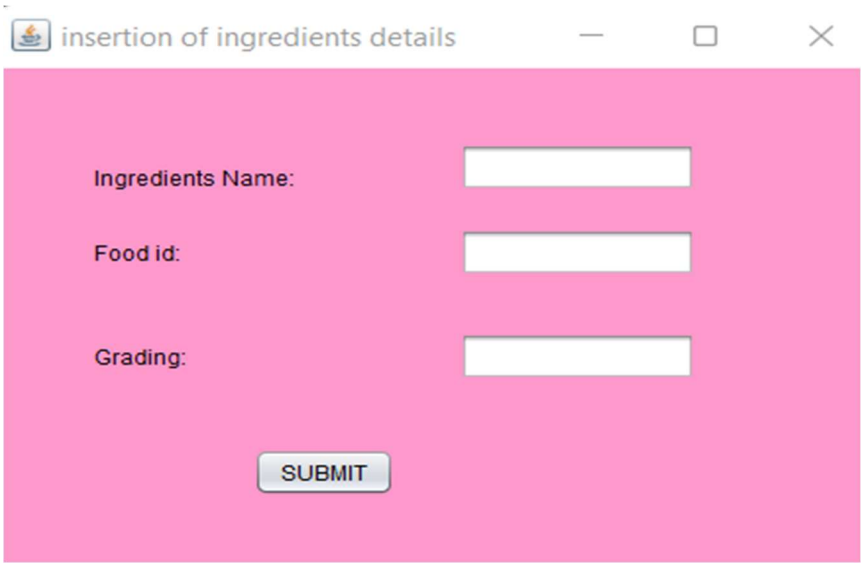


If there is issue during updation then following happens:



Foodrecipe_view:

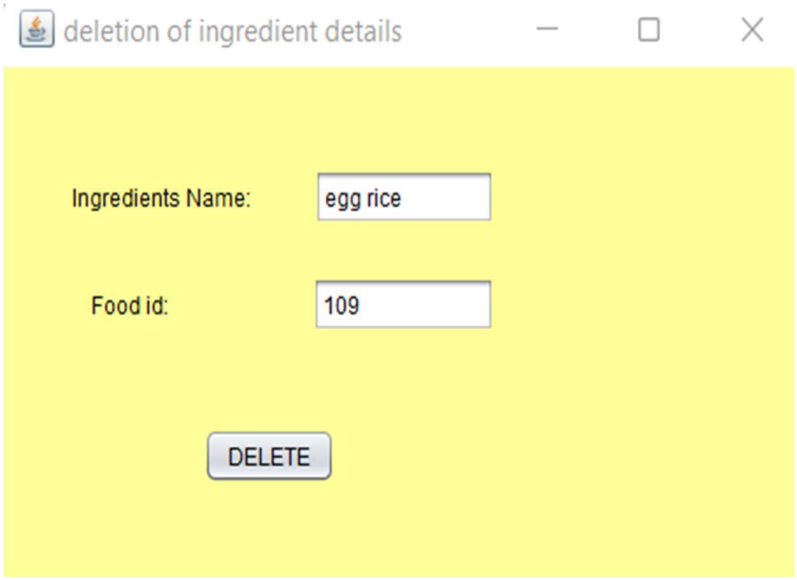
Ingredients_insert:



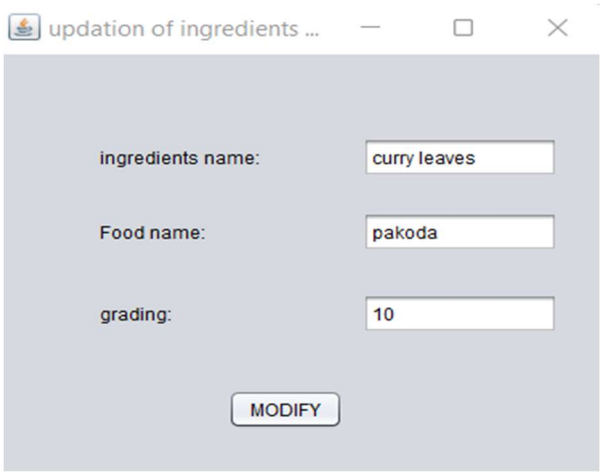
To insert values into customer table enter in the above textfield and submit.

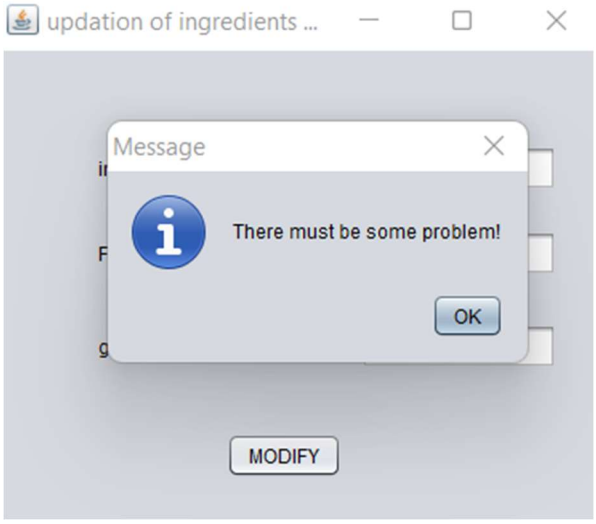
Ingredients_delete:

To delete particular ingredients details enter food id and ingredients name to delete it from database.

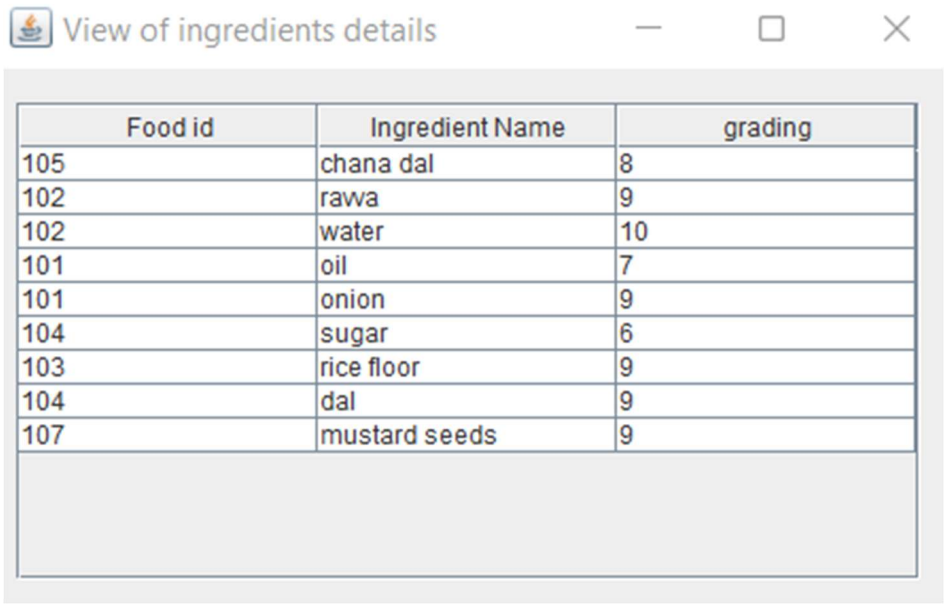


Ingredients_update:



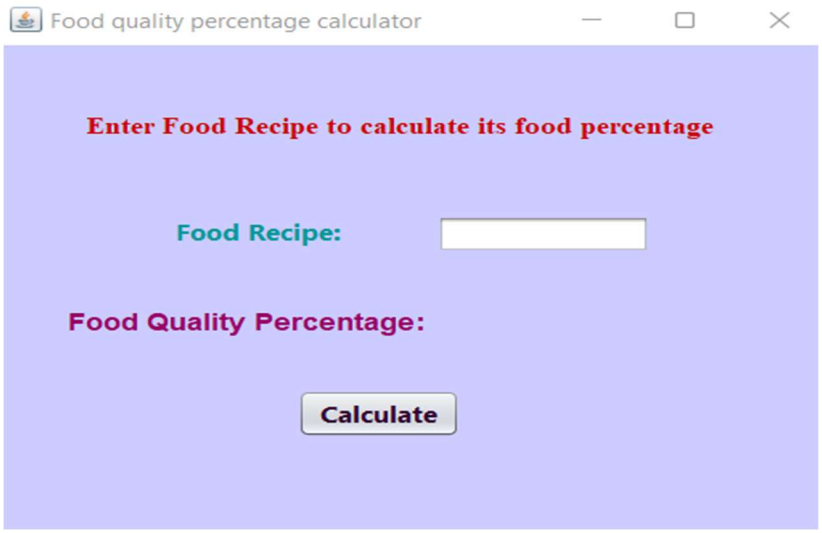


Ingredients_view:



Food id	Ingredient Name	grading
105	chana dal	8
102	rawa	9
102	water	10
101	oil	7
101	onion	9
104	sugar	6
103	rice floor	9
104	dal	9
107	mustard seeds	9

Calculate:



This is used to calculate the final food quality percentage of given food recipe. Let us check it by example.

RESULTS:

I successfully completed this assignment “Food quality database”.

Discussion and Future work:

This project helps us to know the food quality of a particular food recipe. It is a basic user interface, so future work is to make this UI more appealing by using graphics. One more feature is to add the feedback form for the customer, so that by considering their suggestions, features can be improved further.

REFERENCES:

Overview (Java Platform SE 7) (oracle.com)

Java Swing Tutorial - javatpoint

Stack Overflow - Where Developers Learn, Share, & Build Careers