UCS1412 – Database Lab Mini Project

Title: Food Delivery Service And Database Management System

Abstract

Description

In today's world, there is an increasing amount of innovation that centers on delivering goods to a person's doorstep, whether that may be groceries, clothes, furniture, etc. Hence, we decided to build an application for a food delivery service company to help them analyze data about their business transactions. This app provides a UI where the company can view information about customers (including their names, phone numbers, and addresses), employees (their names and job positions), and restaurants participating in the service (their addresses and menu items). As such, the app's intended clients are the managers of the company, since they will likely be responsible for keeping track of current employees, customers, and restaurant data. For example, they can query each customer's order history and the number of orders fulfilled within a given time period. These queries will assist managers in making decisions about employee bonuses, customer discounts, etc.

For overall functionality of the application, we would have to be able to query how many hours each employee has worked, be able to create a contract with a new restaurant to join the delivery program, and be able to view the order histories of individual customers (more functionalities are listed below). We would also take into consideration limitations such as how many hours an employee can work per day and that drivers in a particular region can only deliver food from restaurants from that region to customers in the same region (constraints listed below).

Functionalities

a) Transactions:

Employee transactions:

- 1. Generate a list of all the employees.
- 2. Show all the employees who work in a given region
- 3. Generate a list of supervisors and the drivers they supervise.
- 4. Create a new employee contract (input employee name, phone number, region, etc).
- 5. Ratings For Driver.

Restaurant transactions:

- 1. Generate a list of all restaurants that have partnered with the delivery service.
- 2. Generate a list of restaurants located in a given region.
- 3. Generate a list of menu items and their prices from a given restaurant.

4. Ratings For Restaurants are shown in the place order screen.

Customer transactions:

- 1. Create customer account
- 2. Customer Sign In
- 3. Show all the restaurants in the same region as the customer.
- 4. Show the order history of a given customer.

b) Constraints:

1. There is only one supervisor per region.

Enforced with an insert trigger on the Supervisors table. (check_spvsr)

2. A customer can only order food from restaurants in his/her region.

Enforced with an insert trigger on the Orders table. (fromSameRegion) And also within the application.

3. Each driver can only complete orders that are in the same region as the restaurant and the customer, and himself/herself.

Enforced with an insert trigger on the Orders table. (fromSameRegion)

4. A driver can only be employed in one region

Enforced through FD empID->empRegion. User of application is also only allowed to select one option from a given drop-down list of regions.

5. A driver cannot work for more than 8 hours per day.

Enforced with a check() constraint during relation creation.

FDs and Normalization

Employees, Supervisors, Drivers Tables

empId -> empName, empRegion, empPhone, empHours_worked, salary, licenseNo, wage, supervisorId, dRating

Customers Table

cld -> cName, cRegion, cPhone, cAddress

Orders Table

orderld -> total, cld, time_made, rld, empld, time_delivered

Restaurants Table

rld -> rName, rCuisine, rRegion, rPhone, rAddress, rRating

Menultems table

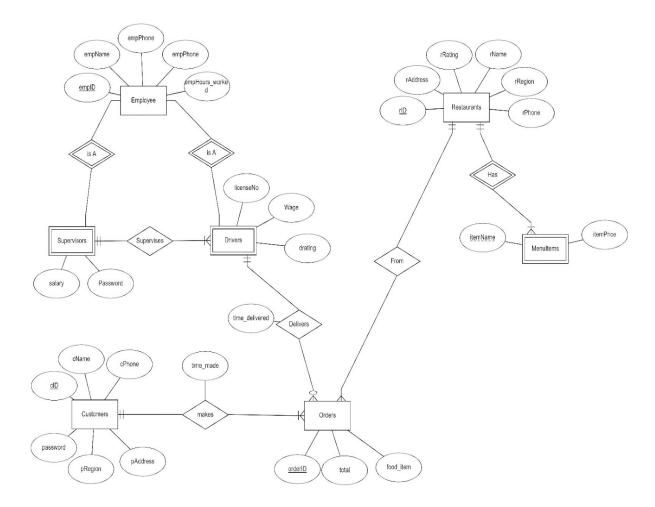
rld, itemName -> itemPrice

Normalization:

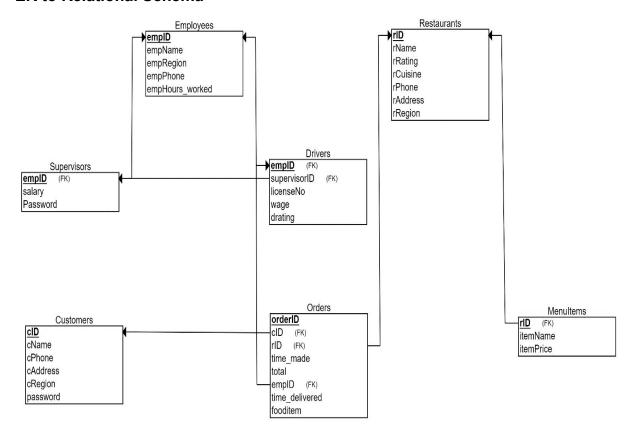
All determinants are **super keys to their respective tables**, therefore all relations are in

BCNF form.

Er Diagram



ER to Relational Schema



Table, Procedures and Functions Definitions

```
-- Employee Table
Create table Employees (
empId varchar2(10) constraint EMP ID PK primary key,
empName varchar2(20),
empRegion varchar2(15),
empPhone varchar2(13),
empHours worked number (3,2),
constraint CHK EMPHRS check (empHours worked <= 8));</pre>
-- Supervisor Table
Create table Supervisors (
empId varchar2(10),
salary number (9, 2),
password varchar2(20),
constraint SUP PK primary key (empId),
constraint SUP EID FK foreign key (empId) references Employees
(empId));
-- Driver Table
Create table Drivers (
empId varchar2(10),
licenseNo varchar2(8),
wage number (4, 2),
drating float,
supervisorId varchar2(10),
constraint DRI PK primary key (empId),
constraint DRI EID_FK foreign key (empId) references Employees
(empId),
constraint DRI SID FK foreign key (supervisorId) references
Supervisors (empId));
-- Customers Table
Create table Customers (
cId varchar2(5) constraint CID PK primary key,
cName varchar2(20),
cPhone varchar2(10),
cAddress varchar2(25),
cRegion varchar2(15),
password varchar2(20));
-- Restaurants Table
Create table Restaurants (
rId varchar2(5) constraint RtID pk primary key,
rName varchar2(20),
rrating float,
rCuisine varchar2(15),
rPhone varchar2(13),
```

```
rAddress varchar2(30),
rRegion varchar2(15));
-- Menu Items Table
Create table MenuItems (
rId varchar2(5),
itemName varchar2(25),
itemPrice number (5,2),
constraint MENU ITMS PK primary key (rId, itemName),
constraint MENU ITEMS RID FK foreign key (rId) references
Restaurants (rId));
-- Orders Table
Create table Orders (
orderId varchar2(5) constraint ORDID_PK primary key,
cId varchar2(5),
rId varchar2(5),
time made Date,
total number (5,2),
empId varchar2(10),
time delivered Date,
fooditem varchar2(100),
constraint ORD_CID_FK foreign key (cId) references Customers
(cId),
constraint ORD_RID_FK foreign key (rId) references Restaurants
constraint ORD EID FK foreign key (empId) references Drivers
(empId));
-- SEQUENCES
-- Employee Sequence
Create sequence emp_seq
start with 1
increment by 1
minvalue 0
maxvalue 500
NOCACHE
NOCYCLE;
-- Restaurant Sequence
Create sequence rest_seq
start with 1
increment by 1
minvalue 0
maxvalue 500
NOCACHE
NOCYCLE;
-- TRIGGERS --
```

```
-- trigger to check whether while inserting a supervisor if there
already exists a supervisor from the region
CREATE OR REPLACE TRIGGER CHECK SUPVSR
    BEFORE INSERT ON Supervisors
    FOR EACH ROW
DECLARE
   ct integer :=0;
    sreq varchar(15);
BEGIN
    /*get the region of the supervisor trying to be inserted
(assumes the new supervisor is already an employee) */
    Select empRegion
    into sreg
    from Employees
    where empId = :NEW.empId;
    /* find the count of supervisors who has the same region as the
inserted supervisor */
    Select count(empId)
    into ct
    FROM Employees natural join Supervisors
    Where empRegion = sreq;
    if ct > 0 then
        RAISE APPLICATION ERROR(-20000, 'Cannot Insert: The given
region already has a supervisor.');
    END IF:
END;
show errors;
--Trigger to check whether the customer and the restaurants are in
the same region
CREATE OR REPLACE TRIGGER fromSameRegion
    BEFORE INSERT ON Orders
    FOR EACH ROW
DECLARE
    l cRegion Customers.cRegion%type;
    l empRegion Employees.empRegion%type;
    1 rRegion Restaurants.rRegion%type;
BEGIN
```

Select cRegion into 1 cRegion

From Customers

```
Where cID = :new.cID;
    Select empRegion into 1 empRegion
    From Employees
   Where empId = :new.empID;
    Select rRegion into 1 rRegion
    From Restaurants
    Where rId = :new.rID;
    IF (1 cRegion <> 1 empRegion) or (1 cRegion <> 1 rRegion) or
(1 empRegion <> 1 rRegion) THEN
     RAISE APPLICATION ERROR (-20001, 'Cannot Insert: Customer,
driver, and/or restaurant are not from the same region.');
   END IF;
END;
show errors;
-- insert values
--procedure to insert employee information
CREATE OR REPLACE PROCEDURE loadEmployeeData
AS
BEGIN
 insert into Employees values('e'||emp_seq.nextval, 'Olivia Liu',
'San Jose', '4082345679', 8);
                              -- 1 SUPERVISOR
  insert into Employees values('e'||emp seq.nextval, 'Adam Jones',
'San Jose', '4082225678', 4); -- 2 DRIVER
  insert into Employees values('e'||emp seq.nextval, 'Maggie
Jones', 'San Jose', '4088458323', 4.5); -- 3 DRIVER
  insert into Employees values('e'||emp_seq.nextval, 'Sherene
Bennett', 'San Jose', '4086341212', 5); -- 4 DRIVER
  insert into Employees values('e'||emp seq.nextval, 'Carla
Jepsen', 'San Francisco', '4158948003', 8); -- 5 SUPERVISOR
  insert into Employees values('e'||emp_seq.nextval, 'David Kim',
'San Francisco', '4087896478', 6.5); -- 6 DRIVER
  insert into Employees values('e'||emp_seq.nextval, 'Luis
Garcia', 'Fremont', '5104328006', 8); -- 7 SUPERVISOR
  insert into Employees values('e'||emp seq.nextval, 'Jess
Applegate', 'Fremont', '5104328006', 5); -- 8 DRIVER
```

```
insert into Employees values('e'||emp seq.nextval, 'Doug White',
'Santa Clara', '4083345432', 8); -- 9 SUPERVISOR
  insert into Employees values('e'||emp seq.nextval, 'Ira Kassen',
'Santa Clara', '4082553399', 4.5); -- 10 DRIVER
  insert into Employees values ('e'||emp seq.nextval, 'Luna
Granger', 'Palo Alto', '4085653432', 8); -- 11 SUPERVISOR
  insert into Employees values('e'||emp seq.nextval, 'Ron Potter',
'Palo Alto', '6152553389', 4.5); -- 12 DRIVER
-- Supervisors
  insert into Supervisors values ('e1', 85000, 'e1admin'); -- SJ
  insert into Supervisors values ('e5', 80000, 'e5admin'); -- SF
  insert into Supervisors values ('e7', 80000, 'e7admin'); --
  insert into Supervisors values ('e9', 80000, 'e9admin'); -- Santa
Clara
  insert into Supervisors values ('e11', 80000, 'e11admin'); --
Palo Alto
--Drivers
  insert into Drivers values ('e2', 'F5628921', 13.50, 1,'e1');
  insert into Drivers values ('e3', 'F8214211', 13.50, 1,'e1');
  insert into Drivers values ('e4', 'F7757382', 14.00, 1,'e1');
  insert into Drivers values ('e6', 'F3226881', 13.00, 1,'e5');
  insert into Drivers values ('e8', 'F3456881', 13.00, 1,'e7');
  insert into Drivers values ('e10', 'F3676881', 13.00, 1,'e9');
  insert into Drivers values ('e12', 'F8921811', 13.00, 1,'e11');
END:
show errors;
exec loadEmployeeData;
--procedure to insert restraunt data
CREATE OR REPLACE PROCEDURE loadRestaurantData
AS
BEGIN
  insert into Restaurants values ('r'||rest_seq.nextval, 'Via Mia
Pizza',1, 'Italian', '4082444100', '1150 Saratoga Ave 95129', 'San
Jose'); -- 1
  insert into Restaurants values ('r'||rest_seq.nextval, 'La
Victoria', 1, 'Mexican', '4082985335', '140 E San Carlos St 95112',
'San Jose'); -- 2
  insert into Restaurants values ('r'||rest_seq.nextval, 'La
Victoria', 1, 'Mexican', '4089938230', '131 W Santa Clara St
95113', 'San Jose'); -- 3
```

```
insert into Restaurants values ('r'||rest seq.nextval, 'Athena
Grill', 1, 'Italian', '4085679144', '1505 Space Park Dr 95054',
'Santa Clara'); -- 4
  insert into Restaurants values ('r'||rest seq.nextval, 'Pizza My
Heart', 1, 'American', '4082410000', '700 Bellomy St 95050', 'Santa
Clara'); -- 5
  insert into Restaurants values ('r'||rest seq.nextval, 'Eastern
Winds', 1, 'Chinese', '5102261588', '6997 Warm Springs Blvd 94539',
'Fremont'); -- 6
  insert into Restaurants values ('r'||rest seq.nextval, 'Chaat
Bhavan', 1, 'Indian', '5107951100', '5355 Mowry Ave 94538',
'Fremont'); -- 7
  insert into Restaurants values ('r'||rest seq.nextval, 'Osaka
Sushi', 1, 'Japanese', '4152558828', '460 Castro St 95114', 'San
Francisco'); -- 8
  insert into Restaurants values ('r'||rest seq.nextval,
'Farmhouse Kitchen', 1, 'Thai', '4158142920', '710 Florida St
94110', 'San Francisco'); -- 9
  insert into Restaurants values ('r'||rest seq.nextval, 'Oren''s
Hummus Shop', 1, 'Israeli', '6507526492', '261 University Ave
94301', 'Palo Alto');--10
  insert into Restaurants values ('r'||rest seq.nextval, 'Tamarine
Restaurant', 1, 'Vietnamese', '6503258500', '560 University Ave',
'Palo Alto');
END;
show errors;
exec loadRestaurantData;
--procedure to insert Menu Items
-- MenuItems (restaurantId, itemName, itemPrice)
CREATE OR REPLACE PROCEDURE loadMenuItems
AS
BEGIN
  insert into MenuItems values ('r1', 'Italiana Pizza', 7.99);
  insert into MenuItems values ('r1', 'Stromboli Pizza', 8.99);
  insert into MenuItems values ('r1', 'Siciliana Beef Pizza',
  insert into MenuItems values ('r1', 'Traditional Calzone',
6.99);
  insert into MenuItems values ('r2', 'Regular Burrito', 5.45);
  insert into MenuItems values ('r2', 'Super Burrito', 6.45);
  insert into MenuItems values ('r2', 'Veggie Burrito', 5.45);
```

```
insert into MenuItems values ('r3', 'Regular Burrito', 5.45);
  insert into MenuItems values ('r3', 'Super Burrito', 6.45);
  insert into MenuItems values ('r3', 'Veggie Burrito', 5.45);
  insert into MenuItems values ('r5', 'Big Sur - 12 in', 17.00);
  insert into MenuItems values ('r5', 'Davenport - 12 in', 17.00);
  insert into MenuItems values ('r5', 'Maui Wowie - 12 in',
15.00);
  insert into MenuItems values ('r4', 'Gyro Plate', 14.50);
  insert into MenuItems values ('r4', 'Chicken Souvlaki Plate',
  insert into MenuItems values ('r4', 'Beef Souvlaki Plate',
18.95);
  insert into MenuItems values ('r6', 'Orange Chicken', 8.95);
  insert into MenuItems values ('r6', 'Chicken Chow Mein', 7.95);
  insert into MenuItems values ('r7', 'Samosa', 3.99);
  insert into MenuItems values ('r7', 'Dabeli', 5.49);
  insert into MenuItems values ('r7', 'Misal Pav', 6.99);
  insert into MenuItems values ('r8', 'Chicken Teriyaki Plate',
  insert into MenuItems values ('r8', 'Salmon Teriyaki Plate',
16.95);
  insert into MenuItems values ('r8', 'Agedashi Tofu', 5.95);
  insert into MenuItems values ('r8', 'Assorted Tempura', 6.95);
  insert into MenuItems values ('r9', 'Fish Cake', 9.00);
  insert into MenuItems values ('r9', 'Tom Yum Kai', 6.00);
  insert into MenuItems values ('r9', 'Pad Thai', 14.00);
  insert into MenuItems values ('r10', 'Hummus Classic', 8.95);
  insert into MenuItems values ('r10', 'Falafel Sandwich', 9.95);
  insert into MenuItems values ('r11', 'Banh Mi Roti', 10.00);
  insert into MenuItems values ('r11', 'Shrimp Spring Rolls',
12.00);
  insert into MenuItems values ('r11', 'Wok Beef Noodles', 18.00);
END;
show errors;
exec loadMenuItems;
```

--procedure to update ratings(driver)

```
CREATE OR REPLACE PROCEDURE updateRatings
(Rest id IN Restaurants.rId%TYPE, Dr id IN Drivers.empId%TYPE, nrr
IN float, ndr IN float) IS
     oldrr float;
     olddr float;
BEGIN
     select rrating into oldrr from Restaurants where rid=Rest id;
     select drating into olddr from Drivers where empId=Dr id;
     update Restaurants set rrating=(oldrr+nrr)/2 where
rid=Rest id;
     update Drivers set drating=(olddr+ndr)/2 where empId=Dr id;
END;
commit;
--procedure to delete driver info from the table
Create or Replace Procedure delete driver(eid in
drivers.empid%TYPE)
AS
BEGIN
delete from drivers
where empid = eid;
delete from employees
where empid = eid;
END;
show errors;
--procedure to delete supervisor information
Create or Replace Procedure delete supervisor(eid in
drivers.empid%TYPE)
AS
BEGIN
update drivers set supervisorId = null where supervisorId = eid;
delete from supervisors
where empid = eid;
delete from employees
where empid = eid;
END;
-- insert values
--procedures to insert new supervisors and drivers
```

```
CREATE OR REPLACE PROCEDURE add supervisor(eid in
employees.empid%TYPE, name in employees.empName%TYPE, region in
employees.empRegion%TYPE, phone no in employees.empPhone%TYPE,
hours worked in employees.empHours worked%TYPE, sup salary in
supervisors.salary%TYPE,pwd in supervisors.password%TYPE)
e id employees.empid%TYPE;
CURSOR c1 IS SELECT empid from employees where empid = eid;
BEGIN
     open c1;
     FETCH c1 INTO e id;
     if c1%found then
          insert into Supervisors values (eid, sup salary, pwd);
     else
          insert into Employees values (eid, name, region,
phone no, hours worked);
          insert into Supervisors values (eid, sup salary, pwd);
     end if;
     update drivers set supervisorId = eid where supervisorId =
null;
END;
-- insert values
CREATE OR REPLACE PROCEDURE add driver(eid in
employees.empid%TYPE, name in employees.empName%TYPE, region in
employees.empRegion%TYPE, phone no in employees.empPhone%TYPE,
hours worked in employees.empHours worked%TYPE, license no in
drivers.licenseNo%TYPE, driver wage in drivers.wage%TYPE,
driver rating in drivers.drating%TYPE, supervisor id in
drivers.supervisorId%TYPE)
e id employees.empid%TYPE;
CURSOR c1 IS SELECT empid from employees where empid = eid;
BEGIN
     open c1;
     FETCH c1 INTO e id;
     if c1%found then
           insert into Drivers values (eid,
license no, driver wage, driver rating, supervisor id);
     else
          insert into Employees values (eid, name, region,
phone no, hours worked);
          insert into Drivers values (eid,
license no, driver wage, driver rating, supervisor id);
     end if;
END;
```

Main Connection Code Used in all Operations:

Home Screen:



Home screen has three buttons:

1)Supervisor

Takes to supervisor login

```
private void
jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    new Supervisorlogin().setVisible(true);
    dispose();
```

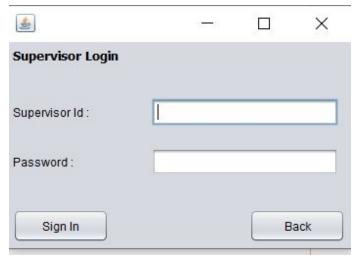
```
2)Customer
Takes to customer login

Code:
    private void
jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        new CustomerLogin().setVisible(true);
        dispose();
    }

3)Exit
Closes the application:
Code:
    private void
jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        System.exit(0);
```

Supervisor login screen:

}



Supervisor login has two buttons:

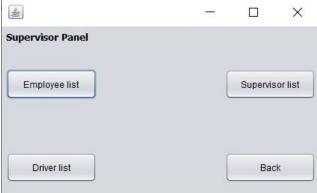
1)Sign In

Helps in signing in

```
private void
jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
        try{
            Class.forName("oracle.jdbc.driver.OracleDriver");
            Connection

conn=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:orcl1","scott","a1028");
            String sql ="select * from Supervisors where empid=?";
```

```
pst=conn.prepareStatement(sql);
            pst.setString(1,sid.getText());
            rs=pst.executeQuery();
            if(rs.next()){
                String uid = rs.getString(1);
                String pass = rs.getString(3);
                if (uid.equals(sid.getText()) &&
pass.equals(jPasswordField1.getText())){
                     new supervisor().setVisible(true);
                     dispose();
                }
                else{
                     JOptionPane.showMessageDialog(null, "Incorrect
Id or password!!");
            }
            conn.close();
            rs.close();
            pst.close();
        catch(Exception e) {
            JOptionPane.showMessageDialog(null,e);
            e.printStackTrace();
        }
2) Back
Takes back to the home screen:
Code:
    private void
jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        new HomeScreen().setVisible(true);
        dispose();
Supervisor Panel screen:
                                             X
                 4
```



There are four buttons on the screen

1)Employee list

Takes to the employees list table

```
Code:
```

```
private void
jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    new employee_list().setVisible(true);
    this.dispose();
}
```

2)Supervisor list

Takes to the supervisor list table

Code:

```
private void
jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    new supervisor_list().setVisible(true);
    this.dispose();
```

3)Drivers list

Takes to the drivers list table

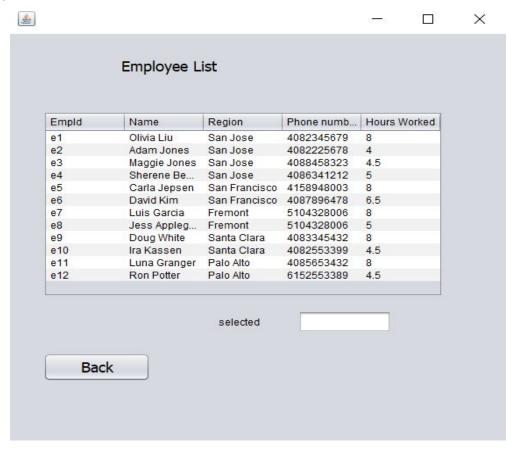
Code:

4)Back

Takes back to the supervisor login page

```
private void
jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    new Supervisorlogin().setVisible(true);
    dispose();
}
```

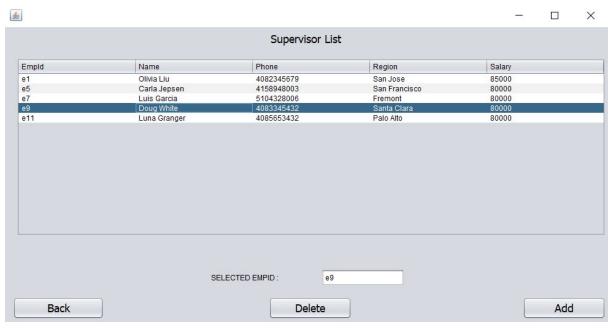
Employee list screen:



Code to populate the table

```
private void populate table(){
        DefaultTableModel
model=(DefaultTableModel)jTable1.getModel();
            Class.forName("oracle.jdbc.OracleDriver");
            Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:
orcl2", "scott", "123");
           while (model.getRowCount()>0)
                model.removeRow(0);
            String query = "select * from Employees";
            PreparedStatement st = con.prepareStatement(query);
            //st.setString(1, category);
            ResultSet rs = st.executeQuery();
           while(rs.next()){
               String s1=rs.getString("empId");
               String s2=rs.getString("empName");
               String s3=rs.getString("empRegion");
               String s4=rs.getString("empPhone");
               String s5=rs.getString("empHOurs worked");
               model.addRow(new Object[] {s1,s2,s3,s4,s5});
```

```
}
        catch(Exception e) {
            JOptionPane.showMessageDialog(this,e.getMessage());
        }
Code to make selection in the table:
    private void jTable1MouseClicked(java.awt.event.MouseEvent
evt) {
        // TODO add your handling code here:
                 int index = jTable1.getSelectedRow();
        eid = jTable1.getModel().getValueAt(index,0).toString();
        jTextField1.setText(eid);
Only one button is present
1)back
Takes back to the supervisor panel
Code:
    private void
jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        new supervisor().setVisible(true);
        this.dispose();
    }
Supervisor list screen:
```

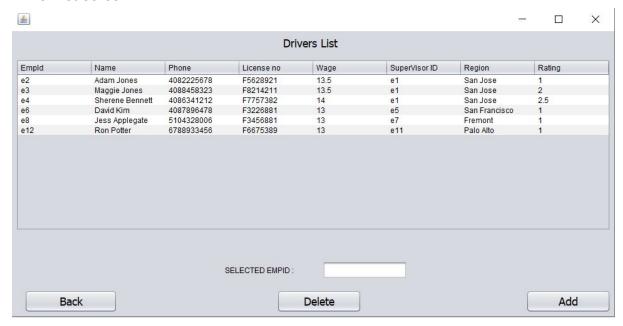


Code to populate the table

```
private void populate table(){
        DefaultTableModel
model=(DefaultTableModel) jTable1.getModel();
                try{
            Class.forName("oracle.jdbc.OracleDriver");
            Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:
orcl2", "scott", "123");
            while(model.getRowCount()>0)
                model.removeRow(0);
            String query = "select * from Supervisors, Employees
where Supervisors.empId = Employees.empId";
            PreparedStatement st = con.prepareStatement(query);
            //st.setString(1, category);
            ResultSet rs = st.executeQuery();
           while(rs.next()){
               String s1=rs.getString("empId");
               String s2=rs.getString("salary");
               String s3=rs.getString("empName");
               String s4=rs.getString("empPhone");
               String s5=rs.getString("empRegion");
               model.addRow(new Object[] {s1,s3,s4,s5,s2});
           }
        catch(Exception e) {
            JOptionPane.showMessageDialog(this,e.getMessage());
        }
Code to make selection in the table:
    private void jTable1MouseClicked(java.awt.event.MouseEvent
evt) {
        // TODO add your handling code here:
               int index = jTable1.getSelectedRow();
        eid = jTable1.getModel().getValueAt(index,0).toString();
        jTextField1.setText(eid);
Three buttons are present:
1)Delete
Helps in deleting supervisor info from the table
Code:
    private void
jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
```

```
// TODO add your handling code here:
        System.out.println(eid);
        if (eid == null ) {
            JOptionPane.showMessageDialog(this, "ROW not selected
\n please select a row");
        else{
            try{
            Class.forName("oracle.jdbc.OracleDriver");
            Connection
conn=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521
:orcl2", "scott", "123");
                 //int temp = Integer.parseInt(eid);
                CallableStatement cst=conn.prepareCall("{call
delete supervisor(?)}");
                cst.setString(1,eid);
                cst.execute();
                JOptionPane.showMessageDialog(null, "Record deleted
successfully");
                populate_table();
            }
            catch(Exception e)
            { JOptionPane.showMessageDialog(this,e.getMessage());}
        }
Helps in adding supervisor info to the table
Code:
    private void
jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        new add_employee('s').setVisible(true);
        this.dispose();
    }
3) Back
Takes back to the supervisor screen
Code:
   private void jButton2ActionPerformed(java.awt.event.ActionEvent
evt) {
        // TODO add your handling code here:
        new supervisor().setVisible(true);
        this.dispose();
    }
```

Driver list screen:



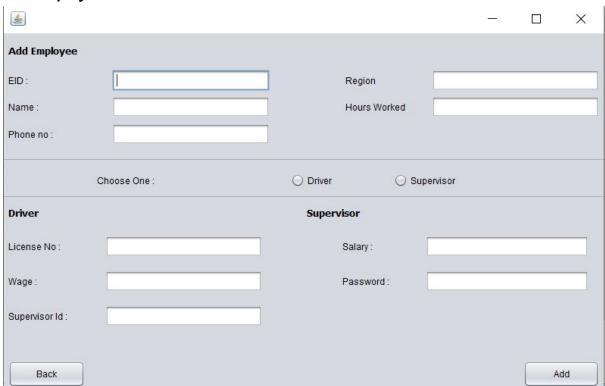
Code to populate the table

```
private void populate table(){
        DefaultTableModel
model=(DefaultTableModel)jTable1.getModel();
            Class.forName("oracle.jdbc.OracleDriver");
            Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:
orcl2", "scott", "123");
            while (model.getRowCount() > 0)
                model.removeRow(0);
            String query = "select * from Drivers, Employees where
Drivers.empId = Employees.empId";
            PreparedStatement st = con.prepareStatement(query);
            //st.setString(1,category);
            ResultSet rs = st.executeQuery();
           while(rs.next()){
               String s1=rs.getString("empId");
               String s2=rs.getString("licenseNo");
               String s3=rs.getString("wage");
               String s4=rs.getString("supervisorId");
               String s5=rs.getString("drating");
               String s6=rs.getString("empName");
               String s7=rs.getString("empRegion");
               String s8=rs.getString("empPhone");
               model.addRow(new Object[]
{s1,s6,s8,s2,s3,s4,s7,s5});
```

```
catch(Exception e) {
            JOptionPane.showMessageDialog(this,e.getMessage());
        }
Code to make selection in the table:
    private void jTable1MouseClicked(java.awt.event.MouseEvent
evt) {
        // TODO add your handling code here:
        int index = jTable1.getSelectedRow();
        eid = jTable1.getModel().getValueAt(index,0).toString();
        jTextField1.setText(eid);
Three buttons are present:
1)Delete
Helps in deleting Driver info from the table
Code:
    private void
jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
        System.out.println(eid);
        if (eid == null ) {
            JOptionPane.showMessageDialog(this, "ROW not selected
\n please select a row");
        }
        else{
            try{
                Class.forName("oracle.jdbc.OracleDriver");
                Connection conn =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:orcl
2", "scott", "123");
                 //int temp = Integer.parseInt(eid);
                CallableStatement cst=conn.prepareCall("{call
delete driver(?) }");
                cst.setString(1,eid);
                cst.execute();
                JOptionPane.showMessageDialog(null, "Record deleted
successfully");
                populate table();
            catch(Exception e)
            { JOptionPane.showMessageDialog(this,e.getMessage());}
```

```
}
2)Add
Helps in adding driver info to the table
Code:
    private void
jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        new add employee('d').setVisible(true);
        this.dispose();
                            }
3) Back
Takes back to the supervisor panel:
Code:
    private void
jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        new supervisor().setVisible(true);
        this.dispose();
```

Add Employee Screen:



Code For the two Radio buttons:

```
jRadioButton2.setSelected(false);
}

private void
jRadioButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    choice = "supervisor";
    jRadioButton1.setSelected(false);
    jRadioButton2.setSelected(true);
}
```

1) Back Button:

Takes back to the screen from where it is called.(Driver_List or Supervisor_list) **Code:**

```
private void
jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    if (typ == 's') {
        new supervisor_list().setVisible(true);
        this.dispose();
    }
    else if (typ == 'd') {
        new drivers_list().setVisible(true);
        this.dispose();
     }
}
```

2) Add Button

Adds the selected type of employee into the database.

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent
evt) {
        // TODO add your handling code here:
        String name=Name.getText();
        String region= Region.getText();
        String phone no=pno.getText();
        String hours worked=hrs.getText();
        String eid=eId.getText();
        //String query = "insert into books value
(?,?,?,?,?,?,?,?)";
        if(name.isEmpty()||region.isEmpty()|| phone no.isEmpty()||
hours worked.isEmpty()){
            JOptionPane.showMessageDialog(this, "ERROR:All Fields
Are Mandatory");
        else{
            if (choice.equals("supervisor")){
```

```
String Salary=salary.getText();
                String pwd = pass.getText();
                if(Salary.isEmpty() || pwd.isEmpty())
                    JOptionPane.showMessageDialog(this, "ERROR:All
Fields Are Mandatory");
                else{
                   try{
                        Class.forName("oracle.jdbc.OracleDriver");
                        Connection conn =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:orcl
1", "scott", "a1028");
                        //int temp = Integer.parseInt(eid);
                        CallableStatement
cst=conn.prepareCall("{call add supervisor(?,?,?,?,?,?,?)}");
                        cst.setString(1,eid);
                        cst.setString(2,name);
                        cst.setString(3, region);
                        cst.setString(4,phone no);
                        cst.setString(5,hours worked);
                        cst.setString(6, Salary);
                        cst.setString(7,pwd);
                        cst.execute();
JOptionPane.showMessageDialog(null, "Supervisor added
successfully");
                   catch(Exception e) {
JOptionPane.showMessageDialog(this,e.getMessage());
                   }
            }
            else if(choice.equals("driver")){
                String license no=license.getText();
                String Wage=wage.getText();
                float drating=1;
                String supervisor ID=sid.getText();
                if(license no.isEmpty() || Wage.isEmpty() ||
supervisor ID.isEmpty())
                    JOptionPane.showMessageDialog(this,"ERROR:All
Fields Are Mandatory");
                else{
                    try{
                        Class.forName("oracle.jdbc.OracleDriver");
```

```
Connection conn =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:orcl
1", "scott", "a1028");
                        //int temp = Integer.parseInt(eid);
                        CallableStatement
cst=conn.prepareCall("{call add driver(?,?,?,?,?,?,?,?)}");
                        cst.setString(1,eid);
                        cst.setString(2,name);
                        cst.setString(3,region);
                        cst.setString(4,phone no);
                        cst.setString(5,hours worked);
                        cst.setString(6,license_no);
                        cst.setString(7, Wage);
                        cst.setFloat(8,drating);
                        cst.setString(9,supervisor_ID);
                        cst.execute();
                        JOptionPane.showMessageDialog(null,"Driver
added successfully");
                    catch(Exception e) {
JOptionPane.showMessageDialog(this,e.getMessage());
            }
    }
```

Customer login screen:



There are three buttons:

1)Sign In

Takes to the customer services:

```
private void jButton4ActionPerformed(java.awt.event.ActionEvent
evt) {
        // TODO add your handling code here:
        try{
            Class.forName("oracle.jdbc.OracleDriver");
conn=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521
:orcl2", "scott", "123");
            String sql ="select * from Customers where cid=?";
            pst=conn.prepareStatement(sql);
            pst.setString(1,jTextField1.getText());
            rs=pst.executeQuery();
            if(rs.next()){
                String uid = rs.getString(1);
                String pass = rs.getString(6);
                if (uid.equals(jTextField1.getText()) &&
pass.equals(jPasswordField1.getText())){
                    new CustomerService().setVisible(true);
                    dispose();
                }
                else{
                    JOptionPane.showMessageDialog(null,"Incorrect
Id or password!!");
            }
```

```
conn.close();
    rs.close();
    pst.close();
}
catch(Exception e) {
    JOptionPane.showMessageDialog(null,e);
}
```

2)Sign Up

Takes to the customer signup page:

Code:

```
private void
jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        new CustomerSignUp().setVisible(true);
        dispose();
```

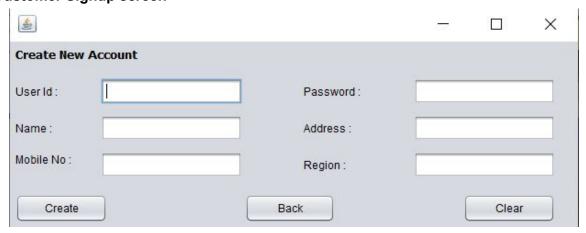
3)back

Takes back to the home screen

Code:

```
private void jButton3ActionPerformed(java.awt.event.ActionEvent
evt) {
        // TODO add your handling code here:
        new HomeScreen().setVisible(true);
        dispose();
```

Customer Signup screen



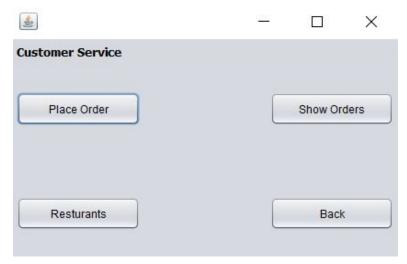
There are three buttons:

1)Create

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent
evt) {
        // TODO add your handling code here:
        try{
```

```
Class.forName("oracle.jdbc.OracleDriver");
            Connection
conn=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521
:orcl2", "scott", "123");
            String sql = "insert into Customers"
+"(cid, cname, cPhone, cAddress, cRegion, password)"
                        +"values (?,?,?,?,?,?)";
            pst=conn.prepareStatement(sql);
/* Adding data to the table */
            pst.setString(1, jTextField1.getText());
            pst.setString(2,jTextField2.getText());
            pst.setString(3,jTextField3.getText());
            pst.setString(4,jTextField4.getText());
            pst.setString(5,jTextField5.getText());
            pst.setString(6,jPasswordField1.getText());
            pst.execute();
            JOptionPane.showMessageDialog(null, "Account Created
successfully");
            new CustomerLogin().setVisible(true);
            dispose();
            conn.close();
        catch(Exception e) {
            JOptionPane.showMessageDialog(null,e);
2) Back
Code:
    private void
jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        new CustomerLogin().setVisible(true);
        dispose();
3) Clear
Code:
   private void jButton2ActionPerformed(java.awt.event.ActionEvent
evt) {
        // TODO add your handling code here:
        jTextField1.setText("");
        jTextField2.setText("");
        jTextField3.setText("");
        jTextField4.setText("");
        jTextField5.setText("");
        jPasswordField1.setText("");
```

Customer services Screen:



There are four buttons

1) Place order

Code:

private void

iButton1ActionPerformed(iava aut event ActionEv

```
jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    new placeorder().setVisible(true);
    dispose();
}
```

2) Show order

Code:

3) Restaurants

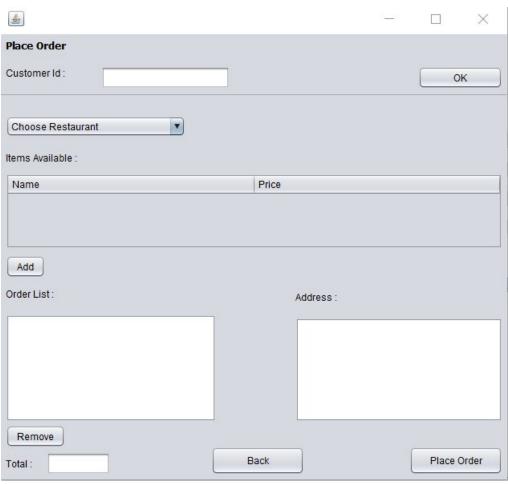
Code:

```
private void
jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
      // TODO add your handling code here:
      new ShowRestaurants().setVisible(true);
      dispose();
}
```

4) Back

```
private void
jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    new CustomerLogin().setVisible(true);
    dispose();
}
```

Place order screen:



Combobox to chose restaurants:

```
Code:
```

```
private void
jComboBox1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        try{
            Class.forName("oracle.jdbc.driver.OracleDriver");
            Connection
conn=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521
:orcl1", "scott", "a1028");
            DefaultTableModel model=(DefaultTableModel)
jTable1.getModel();
(!jComboBox1.getItemAt(jComboBox1.getSelectedIndex()).equals("Choo
se Restaurant") ||
!jComboBox1.getItemAt(jComboBox1.getSelectedIndex()).equals("")){
                String []arr =
jComboBox1.getItemAt(jComboBox1.getSelectedIndex()).split("
                restid = arr[0];
                model.setRowCount(0);
                String sql ="select * from MenuItems where rid=?";
                pst=conn.prepareStatement(sql);
                pst.setString(1,arr[0]);
                rs=pst.executeQuery();
                while(rs.next()){
                    String name=rs.getString(2);
                    float price=Float.parseFloat(rs.getString(3));
                    model.addRow(new Object[]
                           {name, price});
                conn.close();
                rs.close();
                pst.close();
            }
        }
        catch(Exception e) {
            JOptionPane.showMessageDialog(null,e);
        }
    }
```

There are five buttons:

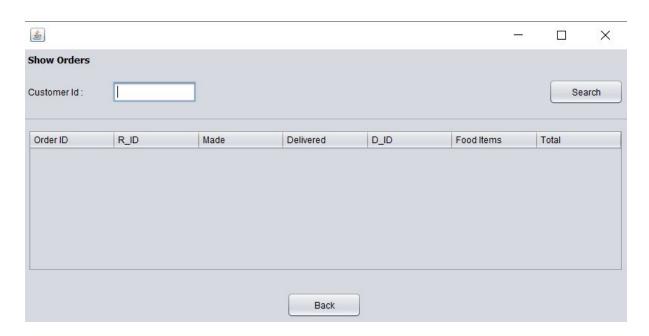
1) Ok

```
try{
                        Class.forName("oracle.jdbc.OracleDriver");
            Connection
conn=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521
:orcl2", "scott", "123");
            String sql ="select * from Customers where cid=?";
            pst=conn.prepareStatement(sql);
            pst.setString(1,jTextField1.getText());
            rs=pst.executeQuery();
            if(rs.next()){
                String add = rs.getString(4);
                region = rs.getString(5);
                jTextArea1.setText(add);
            }
            conn.close();
            rs.close();
            pst.close();
            Class.forName("oracle.jdbc.OracleDriver");
conn=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521
:orcl2", "scott", "123");
            sql ="select * from Restaurants where rRegion=?";
            pst=conn.prepareStatement(sql);
            pst.setString(1, region);
            rs=pst.executeQuery();
            while(rs.next()){
                jComboBox1.addItem(rs.getString(1)+"
"+rs.getString(2)+" ("+Float.parseFloat(rs.getString(3))+")");
            conn.close();
            rs.close();
            pst.close();
        }
        catch(Exception e) {
            JOptionPane.showMessageDialog(null,e);
        }
2) Add
Code:
private void AddButtonActionPerformed(java.awt.event.ActionEvent
evt) {
        // TODO add your handling code here:
        DefaultTableModel model=(DefaultTableModel)
jTable1.getModel();
```

```
int[] index = jTable1.getSelectedRows();
        Object[] row = new Object[2];
        String str="";
        for(int i=0;i< index.length;i++){</pre>
            str = str + model.getValueAt(index[i],0);
            str = str +" "+ model.getValueAt(index[i],1);
        }
        String []arr = str.split(" ");
        total += Float.parseFloat(arr[1]);
        dlm.addElement(str);
        jTextField2.setText(Float.toString(total));
3) Remove
Code:
  private void jButton2ActionPerformed(java.awt.event.ActionEvent
evt) {
        // TODO add your handling code here:
        int Index = orderlist.getSelectedIndex();
        //System.out.println(Index);
        String str;
        if (Index != -1) {
            str = dlm.remove(Index);
            String []arr = str.split("
            total -= Float.parseFloat(arr[1]);
            jTextField2.setText(Float.toString(total));
4) Place Order
Code:
 private void jButton3ActionPerformed(java.awt.event.ActionEvent
evt) {
        // TODO add your handling code here:
        try{
            Class.forName("oracle.jdbc.OracleDriver");
            Connection
conn=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521
:orcl2", "scott", "123");
            String Eid="";
            Random rand = new Random();
            int ind = 0;
            String sql = "select * from drivers d,employees e
where d.empid = e.empid and e.empRegion=? and e.empHours worked <
8";
            pst=conn.prepareStatement(sql);
            pst.setString(1, region);
            rs=pst.executeQuery();
```

```
while(rs.next()){
                Eid += rs.getString(1);
                Eid += " ";
            }
            String []eid=Eid.split(" ");
            ind = rand.nextInt(eid.length);
            rs.close();
            pst.close();
            java.util.Date utilDate = new java.util.Date();
            java.sql.Date date = new
java.sql.Date(utilDate.getTime());
            int oid = rand.nextInt(100000);
            int size = dlm.getSize();
            String ol="";
            for(int i=0;i<size;i++) {</pre>
                ol += dlm.get(i).split(" ")[0];
                ol += ",";
            }
            ol = ol.substring(0,ol.length()-1);
            sql = "insert into Orders"
+"(orderId, cid, rid, time made, total, empId, time delivered, fooditem)"
                        +"values (?,?,?,?,?,?,?)";
            pst=conn.prepareStatement(sql);
/* Adding data to the table */
            pst.setString(1,Integer.toString(oid));
            pst.setString(2,jTextField1.getText());
            pst.setString(3, restid);
            pst.setDate(4,date);
            pst.setString(5,jTextField2.getText());
            pst.setString(6,eid[ind]);
            pst.setDate(7,date);
            pst.setString(8,ol);
            pst.execute();
            JOptionPane.showMessageDialog(null, "Order Placed
successfully");
            int response = JOptionPane.showConfirmDialog(this,"Do
you want to rate your
experience?", "Rating", JOptionPane.YES NO OPTION, JOptionPane.QUESTI
ON MESSAGE);
            if (response == JOptionPane.YES OPTION) {
                new Rating(restid, eid[ind]).setVisible(true);
                dispose();
            }
            else{
```

Show orders screen:



There are two buttons

1) Search

Code:

```
private void SearchActionPerformed(java.awt.event.ActionEvent
evt) {
      // TODO add your handling code here:
      try{
```

```
Class.forName("oracle.jdbc.OracleDriver");
            Connection
conn=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521
:orcl2", "scott", "123");
                DefaultTableModel model=(DefaultTableModel)
jTable1.getModel();
                model.setRowCount(0);
                String sql ="select * from Orders where cId=? ";
                pst=conn.prepareStatement(sql);
                pst.setString(1, jTextField1.getText());
                rs=pst.executeQuery();
                while(rs.next()){
                    String oid=rs.getString(1);
                    String rid=rs.getString(3);
                    String mdate=rs.getString(4);
                    mdate = mdate.substring(0,10);
                    String ddate=rs.getString(7);
                    ddate = ddate.substring(0,10);
                    String did=rs.getString(6);
                    String food=rs.getString(8);
                    float total =
Float.parseFloat(rs.getString(5));
                    model.addRow(new Object[]
                        {oid, rid, mdate, ddate, did, food, total});
                }
                conn.close();
                pst.close();
                rs.close();
            catch(Exception e) {
                JOptionPane.showMessageDialog(null,e);
        }
2) Back
Code:
      private void
jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        new CustomerService().setVisible(true);
        dispose();
    }
```

Show Restaurants screen:



There are two buttons

1) Search

Code:

```
private void SearchActionPerformed(java.awt.event.ActionEvent
evt) {
        // TODO add your handling code here:
        try{
Class.forName("oracle.jdbc.OracleDriver");
            Connection
conn=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521
:orcl2", "scott", "123");
                DefaultTableModel model=(DefaultTableModel)
jTable1.getModel();
                model.setRowCount(0);
                String sql ="select * from Restaurants where
rRegion=? ";
                pst=conn.prepareStatement(sql);
                pst.setString(1,jTextField1.getText());
                rs=pst.executeQuery();
                while(rs.next()){
                    String rid=rs.getString(1);
                    String name=rs.getString(2);
                    String cuisine=rs.getString(4);
                    String phone=rs.getString(5);
                    String add=rs.getString(6);
                    String region=rs.getString(7);
                    float rating =
Float.parseFloat(rs.getString(3));
                    model.addRow(new Object[]
```

```
{rid, name, cuisine, phone, add, region, rating});
                conn.close();
                pst.close();
                 rs.close();
        }
            catch(Exception e) {
                 JOptionPane.showMessageDialog(null,e);
        }
2) Back
Code:
       private void BackActionPerformed(java.awt.event.ActionEvent
evt) {
        // TODO add your handling code here:
        new CustomerService().setVisible(true);
        dispose();
    }
```

Rating Screen



Code For Submit Button:

```
private void SubmitActionPerformed(java.awt.event.ActionEvent evt)
{
     // TODO add your handling code here:
     try{
```

```
Class.forName("oracle.jdbc.driver.OracleDriver");
            Connection
conn=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521
:orcl1", "scott", "a1028");
            cst=conn.prepareCall("{call updateRatings(?,?,?,?)}");
/* Execution the procedure calNet Pay */
            cst.setString(1,R id);
            cst.setString(2,E id);
            cst.setFloat(3,Float.parseFloat(R Rating.getText()));
            cst.setFloat(4,Float.parseFloat(D Rating.getText()));
            cst.executeUpdate();
            JOptionPane.showMessageDialog(null,"ThankYou For
Rating");
            new CustomerService().setVisible(true);
            dispose();
        }
        catch(Exception e) {
            JOptionPane.showMessageDialog(null,e);
        }
    }
```

.....

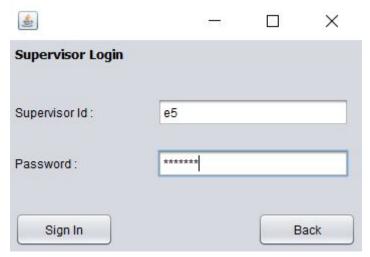
.....

Working

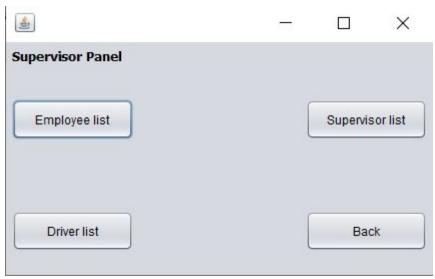
1) Home Screen



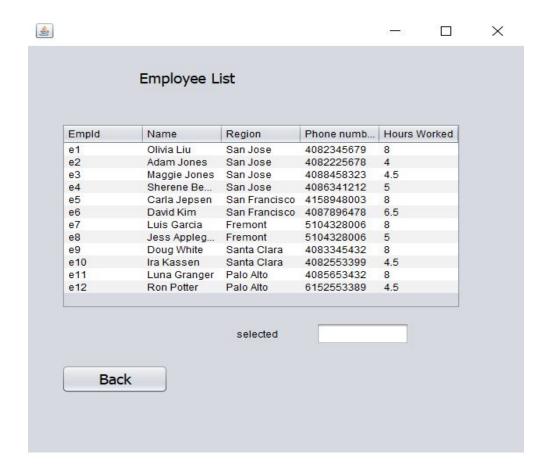
2) Supervisor Login



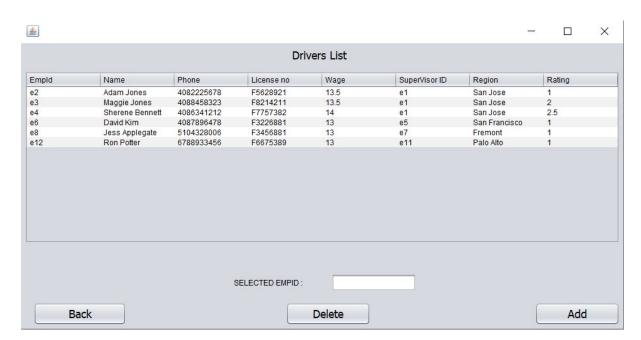
3) Supervisor Panel



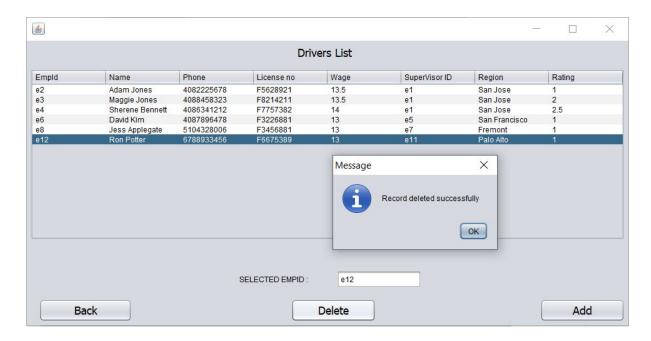
4) Employee List



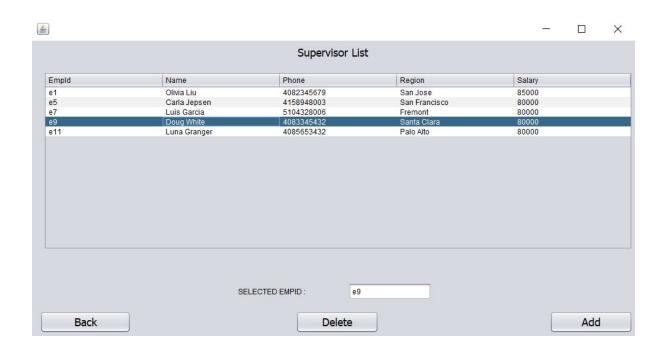
5) Driver List



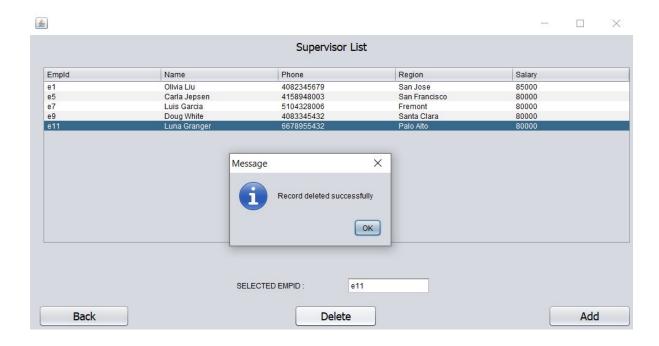
6) Driver Delete Operation



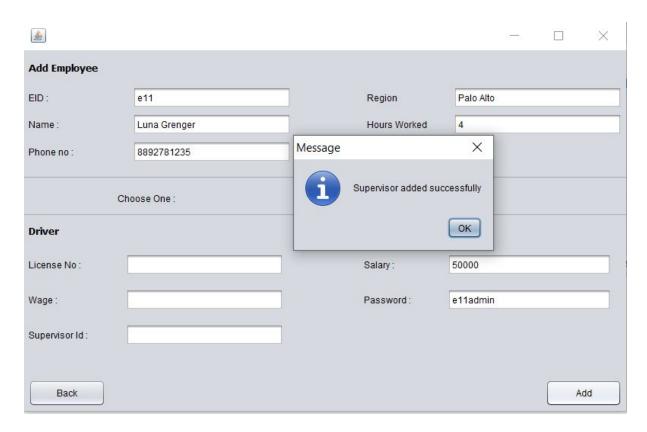
7) Supervisor List



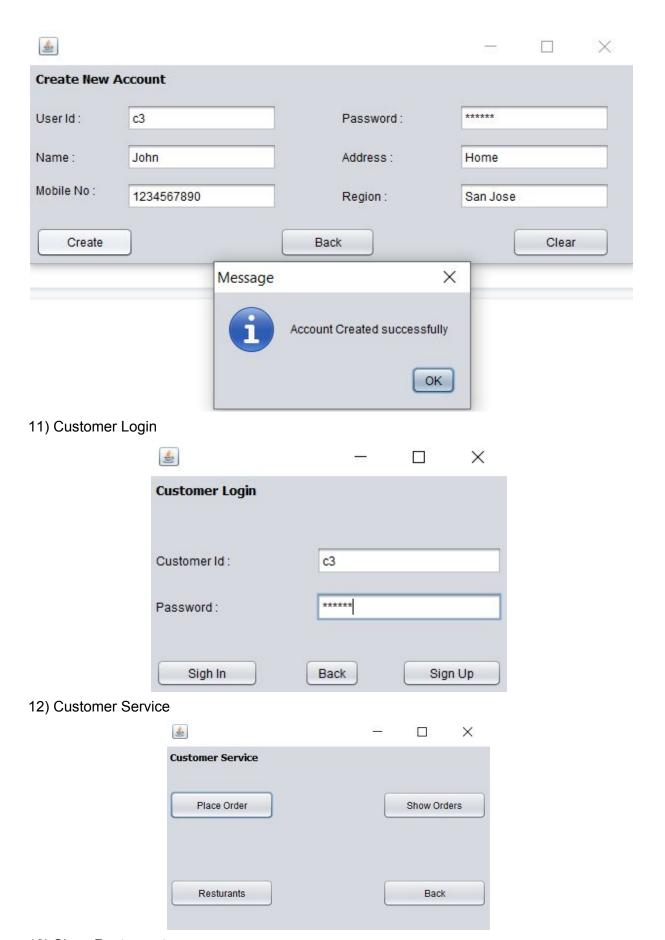
8) Supervisor Delete Operation



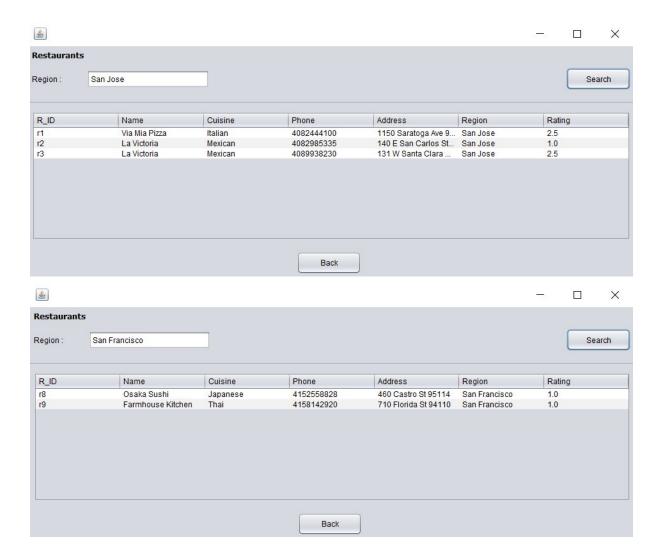
9) Add Employee



10) Customer Account Creation

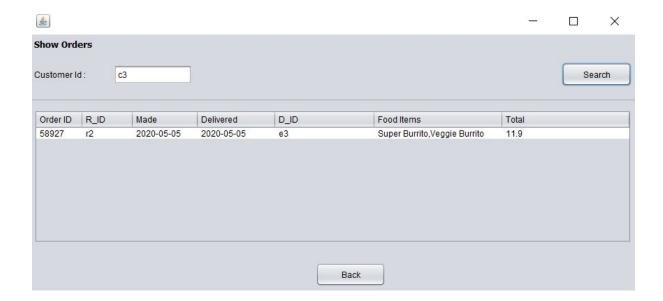


13) Show Restaurants

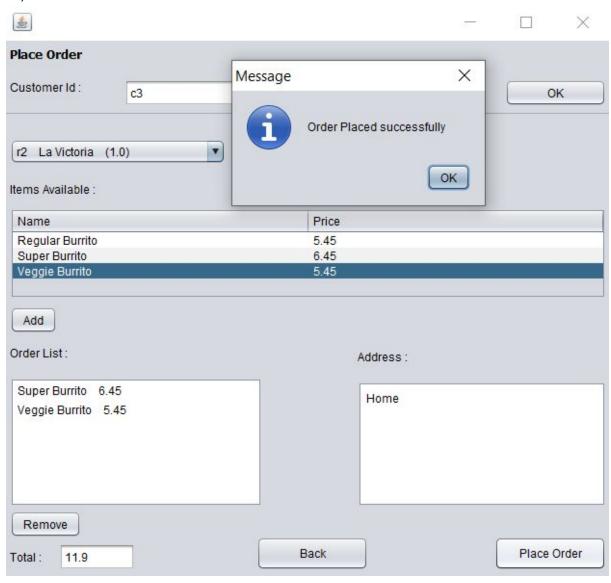


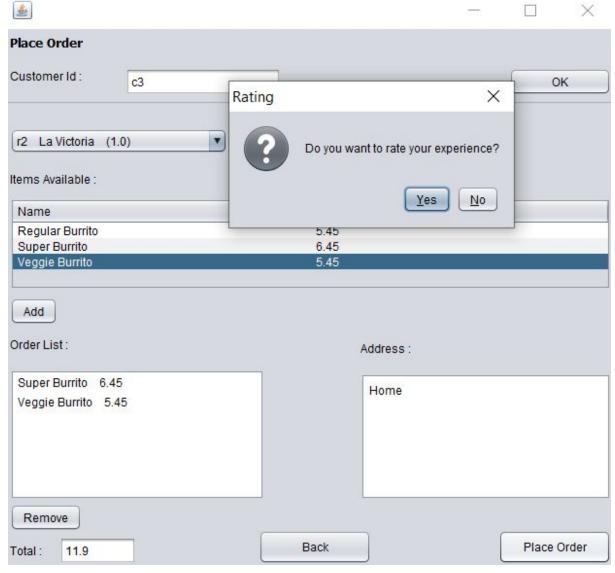
14) Show Orders





15) Place Order





16) Rating

