

# CSC 315 FINAL PROJECT

## RESTAURANT POS DATABASE

### GROUP MEMBERS

1. RAHUL THAPA
2. NANCY PANDEY

## **Abstract**

We have developed a database that mimics a basic POS system used in a restaurant. The database provides a platform to display the records regarding the items in the menu, employee information, reports for each day regarding the detailed information about sales, revenues, taxes, and more. Although the database designed is of a basic level, it helps to perform many functions that are the key aspects for a smooth-running restaurant. A user can insert, update, and delete the information stored in the database which provides a great deal of flexibility for a great working POS. Through the database adequate amount of information can be obtained regarding employees as well. This will result in proper staffing for specific days leading to a successful night of business. All in all, this basic POS will help the restaurant, helps employees to keep track of their tips, help owners keep track of sales and everything, and eventually contribute towards the business.

## **Requirement Analysis**

- The database should include the details of items in the menu specified by its item number, name, and price.
- The database should include information about its employee by their name, employee id, position, and their manager id.
- The database should include the report regarding the sales, revenues, taxes, and employee tips of the restaurant for each specific date that will provide an overall financial picture.
- The reports should be made by the manager, who is also a part of the employee entity.
- The database should have a custom section that allows the employee to make a custom change either in the food, price, or any records for certain cases that will not be stored as a primary aspect.

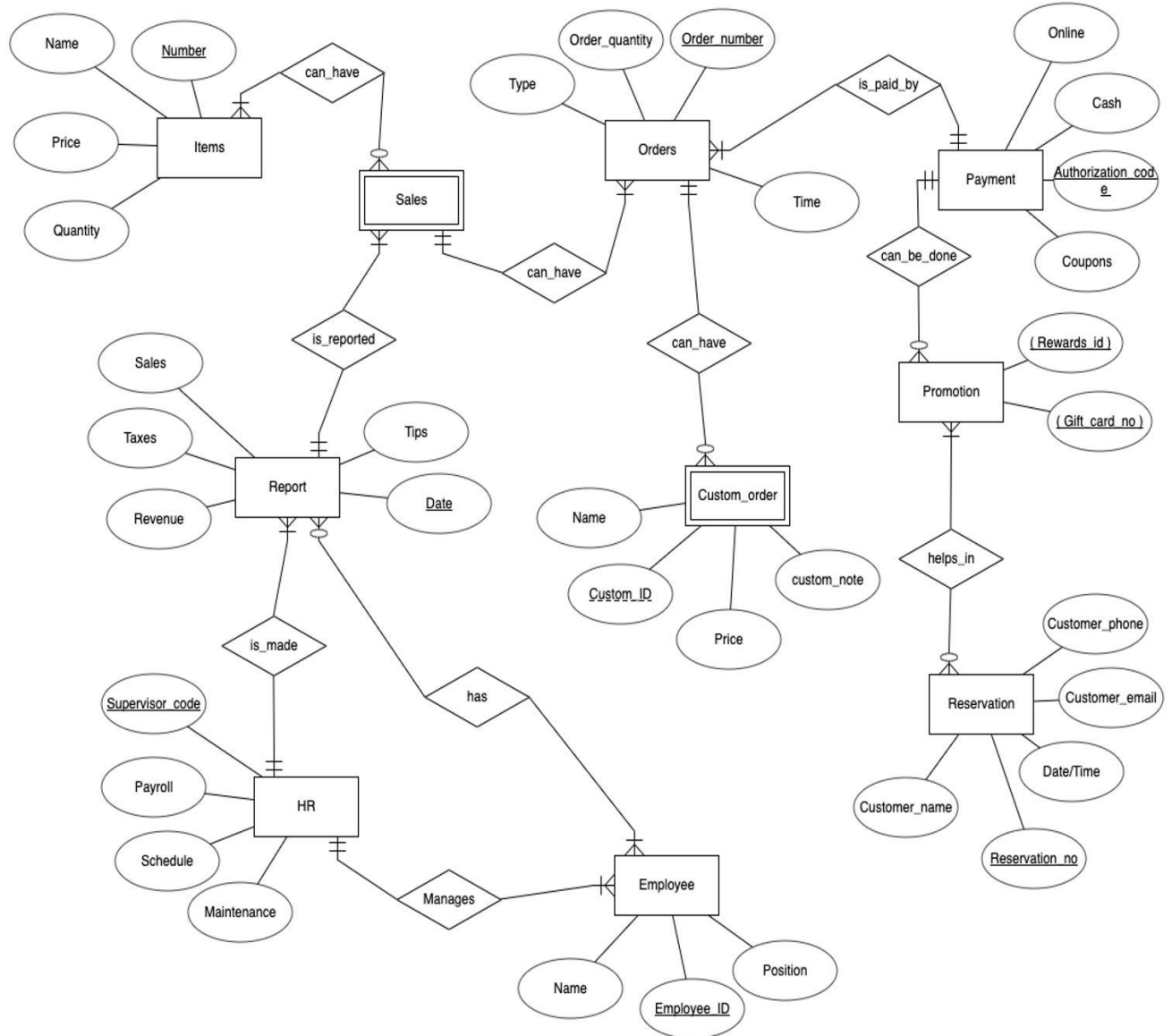
- The database should be easily understood and should be simple enough to be operated by anyone with basic understandings.
- Reservation can be made using the POS for the spot using customer details.
- The payment can be done either using cash, card, or using promotional coupons or gift cards.
- Every sale done should be uniquely be identified.

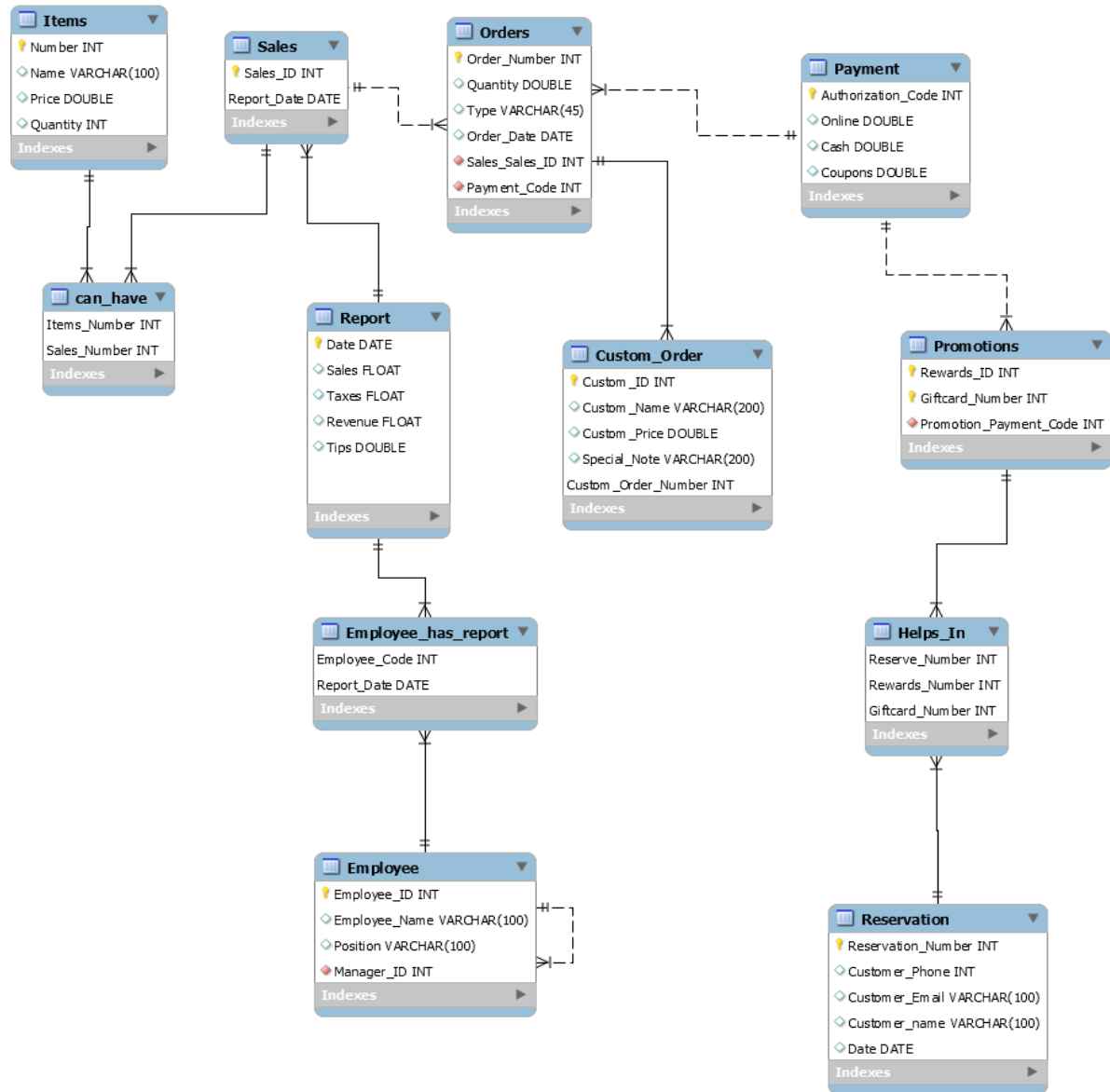
### **Assumptions**

- Each item in the menu is specified by a unique item number.
- Each order is recorded and reported using a unique order number.
- Each custom order is also recorded and reported with unique order number accompanied by a custom note.
- Each employee is distinguished by a unique employee ID. The employee can insert, update, and delete the record of items, and the manager can insert, update, and delete the record of reports.
- Each payment is issued and recorded using specific authorization code to avoid any financial crash. The payment can be done using various ways such as coupons, gift cards, cash, and card.
- Reservations leads to promotions.
- A report should contain all the information about sales and payments.

## Relational Schema and E-R Diagram

ER diagram of POS for restaurant management





This is what an opening screen, menu, looks like with labels, text fields and buttons.

Hamro Menu

Item number:

Item name:

Price:

Want to Order??

Number	Name	Price
12	Chicken Biryani	10.5
13	Chicken Mo:Mo	12.95
15	Khaja Set	8.99
16	Grilled Fish	21.5
17	Chowmein	5.99
18	Pasta	12.99
19	kabab	7.99
20	Mango Lassi	6.99
223	Cheese Cake	2.99

Employee Information

Report

Adding the data using insert button.

Hamro Menu

Item number:

Item name:

Price:

Want to Order??

Employee Information

Report

Number	Name	Price
12	Chicken Biryani	10.5
13	Chicken Mo:Mo	12.95
15	Khaja Set	8.99
16	Grilled Fish	21.5
17	Chowmein	5.99
18	Pasta	12.99
19	kabab	7.99
20	Mango Lassi	6.99
223	Cheese Cake	2.99
225	Ilish Bhaja	8.99

Message

Data inserted!!

Updating the menu information using update button.

Hamro Menu

Item number:

Item name:

Price:

Want to Order??

Employee Information

Report

Number	Name	Price
12	Chicken Biryani	10.5
13	Chicken Mo:Mo	12.95
15	Khaja Set	8.99
16	Grilled Fish	21.5
17	Chowmein	5.99
18	Pasta	12.99
19	kabab	7.99
20	Mango Lassi	6.99
223	Carrot Cake	4.99

Message

Data Updated!!

Deleting the menu information using delete button.

Hamro Menu

Item number:

Item name:

Price:

Want to Order??

Employee Information

Report

Number	Name	Price
12	Chicken Biryani	10.5
13	Chicken Mo:Mo	12.95
15	Khaja Set	8.99
16	Grilled Fish	21.5
17	Chowmein	5.99
18	Pasta	12.99
19	kabab	7.99
20	Mango Lassi	6.99
223	Cheese Cake	2.99

Message

Data deleted successfully!

User can display employee information using click here button next to employee information from menu screen.

Hamro Menu

Item number:

Item name:

Price:

Want to Order??

Hamro Employees

ID:

Name:

Position:

Manager ID:

Employee ID	Employee Name	Employee Position	Manager ID
2	Nancy Pandey	Server	7
3	Paul Thanapong	Host	7
4	Alexis Duong	Server	7
5	Roshan Bhariya	Chef	7
7	Rahul Thapa	Manager	0
11	Chris Fukuhara	Bar Tender	7
12	Sunny Singh	Head Server	7
13	Austin Maine	Kitchen Helper	7
15	Christine Nyguen	Server	7
32	Christy Nyguen	Bust Boy	7

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We can add, update and delete employee information using add, update and delete buttons.



Hamro Menu

Item number: 225

Item name: Ilish Bhaja

Price: 8.99

Insert Update

Want to Order?? Yes

Add Employee:

Update Information:

Delete Information:

Number	Name	Price
12	Chicken Biryani	10.5
13	Chicken Mo.Mo	12.95
15	Khaja Set	8.99
16	Grilled Fish	21.5

Hamro Employees

ID: 33

Name: Sanjeev Kumar

Position: Head Server

Manager ID: 7

Employee ID	Employee Name	Employee Position	Manager ID
2	Nancy Pandey	Server	7
3	Paul Thanapong	Host	7
4	Alexis Duong	Server	7
5	Roshan Bhariya	Chef	7
7	Rahul Thapa	Manager	0
11	Chris Fukuhara	Bar Tender	7
12	Sunny Singh	Head Server	7
13	Austin Maine	Kitchen Helper	7
15	Christine Nyguen	Server	7
32	Christy Nyguen	Bust Boy	7
33	Sanjeev Kumar	Head Server	7

Message

Inserted Successfully

OK

Hamro Menu

Item number: 225

Item name: Ilish Bhaja

Price: 8.99

Insert Update

Want to Order?? Yes

Add Employee:

Update Information:

Delete Information:

Number	Name	Price
12	Chicken Biryani	10.5
13	Chicken Mo.Mo	12.95
15	Khaja Set	8.99
16	Grilled Fish	21.5

Hamro Employees

ID: 33

Name: Sujit Thapa

Position: Head Server

Manager ID: 7

Employee ID	Employee Name	Employee Position	Manager ID
2	Nancy Pandey	Server	7
3	Paul Thanapong	Host	7
4	Alexis Duong	Server	7
5	Roshan Bhariya	Chef	7
7	Rahul Thapa	Manager	0
11	Chris Fukuhara	Bar Tender	7
12	Sunny Singh	Head Server	7
13	Austin Maine	Kitchen Helper	7
15	Christine Nyguen	Server	7
32	Christy Nyguen	Bust Boy	7
33	Sujit Thapa	Head Server	7

Message

Updated Successfully

OK

Hamro Menu

Item number: 225

Item name: Ilish Bhaja

Price: 8.99

Insert Update

Want to Order?? Yes

Number	Name	Price
12	Chicken Biryani	10.5
13	Chicken Mo.Mo	12.95
15	Khaja Set	8.99
16	Grilled Fish	21.5

Hamro Employees

ID: 33

Name: Sujit Thapa

Position: Head Server

Manager ID: 7

Add Employee:

Update Information:

Delete Information:

Employee ID	Employee Name	Employee Position	Manager ID
2	Nancy Pandey	Server	7
3	Paul Thanapong	Host	7
4	Alexis Duong	Server	7
5	Roshan Bhariya	Chef	7
7	Rahul Thapa	Manager	0
11	Chris Fukuhara	Bar Tender	7
12	Sunny Singh	Head Server	7
13	Austin Maine	Kitchen Helper	7
15	Christine Nyguen	Server	7
32	Christy Nyguen	Bust Boy	7

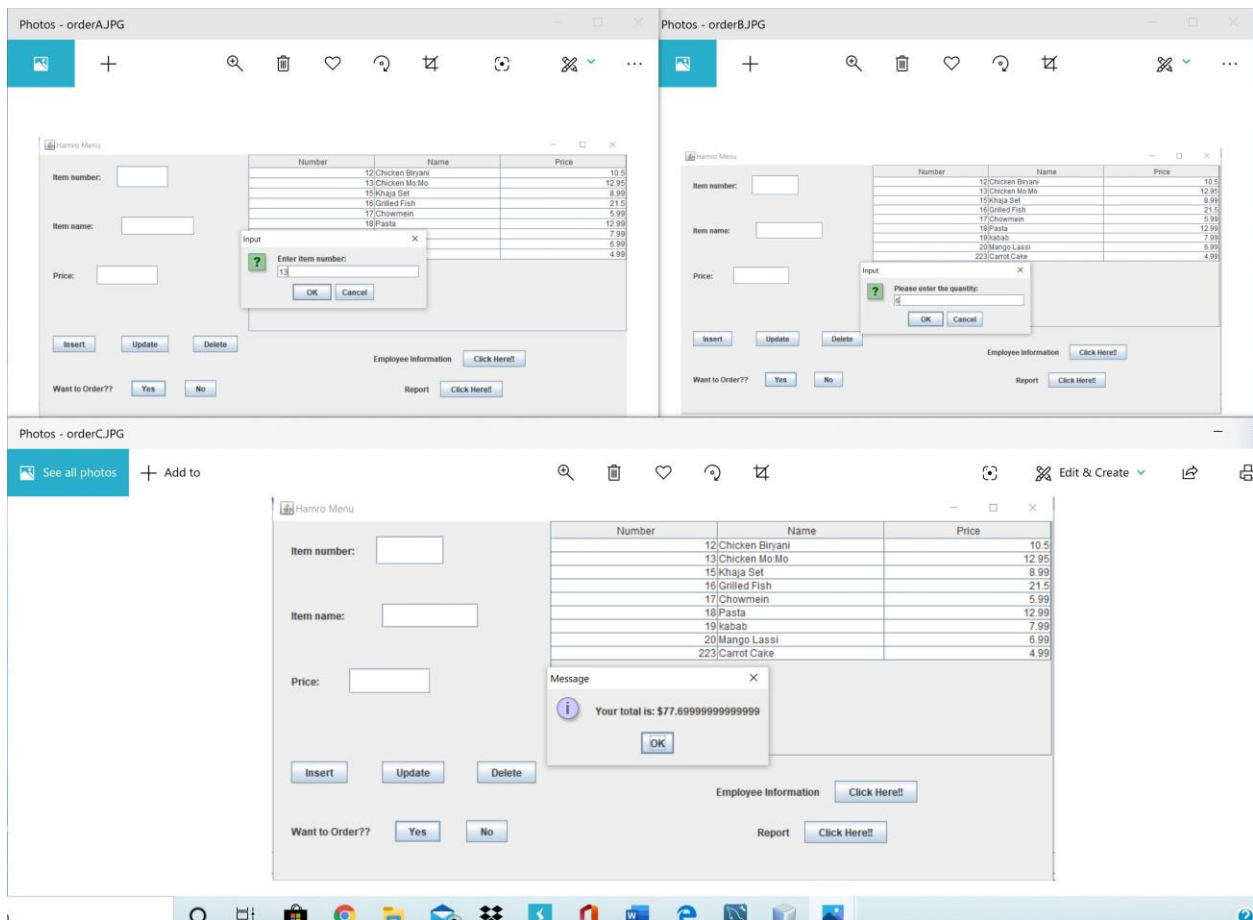
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Deleted Successfully

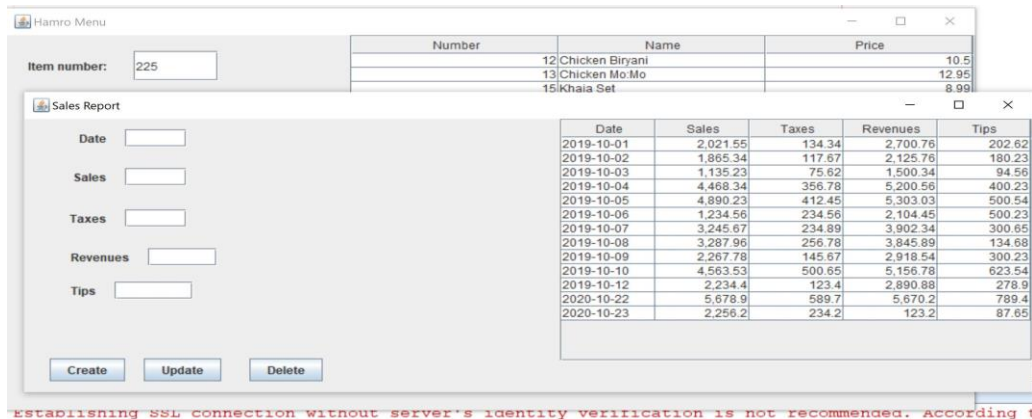
OK

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User can order clicking Yes button alongside want to order?? Label. The total is displayed after entering item number and quantity.



User can view the report as well



Create a report.

Hamro Menu

Item number:

Number	Name	Price
12	Chicken Biryani	10.5
13	Chicken Mo:Mo	12.95
15	Khaia Set	8.99

Sales Report

Date:

Sales:

Taxes:

Revenues:

Tips:

Create Update Delete

Date	Sales	Taxes	Revenues	Tips
2019-10-01	2,021.55	134.34	2,700.76	202.62
2019-10-02	1,865.34	117.67	2,125.76	180.23
2019-10-03	1,135.23	75.62	1,500.34	94.56
2019-10-04	4,468.34	356.78	5,200.56	400.23
2019-10-05	4,890.23	412.45	5,303.03	500.54
2019-10-06	1,234.56	234.56	2,104.45	500.23
2019-10-07	3,245.67	234.89	3,902.34	300.65
2019-10-08	3,287.96	256.78	3,845.89	134.68
2019-10-09	2,267.78	145.67	2,918.54	300.23
2019-10-10	4,563.53	500.65	5,156.78	623.54
2019-10-12	2,234.4	123.4	2,890.88	278.9
2020-10-22	5,678.9	589.7	5,670.2	789.4
2020-10-23	2,256.2	234.2	123.2	87.65
2020-10-24	5,467.3	234.5	6,190.2	456.4

Message

Data Inserted

OK

Establishing SSL connection without server's identity verification is not recommended. According to...

Overall, it was a very fun project. We had a great time and learnt a great deal of new stuffs.

Thank you!!