

# RESTAURANT

## Management System

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## DESCRIPTION

**Our Software is a Restaurant Management System. We made it to help restaurants:**

1. Reduce the order processing time.
2. Automate redundant work.
3. Deliver a great customer experience.
4. Determine Profits & Costs

**This Software has two modules:**

1. Admin
2. Employee

**You can log in as Admin or Employee, If you logged in as admin :**

**Admin managed to add new employees, list, update and delete them and does the same operations in meals and makes special offers. He can make reports about employees that report contains all information about all employees.**

**If you logged in as an employee :**

**The employee managed to add new Customers, list, update and delete them. He can make and cancel orders and show offers.**

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# GUI Route

## ADMIN VIEW\*

Welcome SE project


ID  
1

Password  
\*\*\*

☒ Admin

**Log in**

**success**  
login successfully  
OK



Employee Meals Offer Report

☒ Employee ☐ Customer

ID	Name	Password / Type	Description

ID

Description

**Report**

Employee Meals Offer Report

Offer ID

Offer Details

Admin ID

**Add Offer**

Employee Meals Offer Report

ADD  
LIST  
SEARCH

ID	Name	Password

**Update** **List** **Delete**

Back

Employee Meals Offer Report

ADD  
LIST  
SEARCH

Employee Name

Employee ID

Employee Password

**ADD**

Back

Employee Meals Offer Report

ADD  
LIST  
SEARCH

Meal ID

Meal Name

Meal Price

Quantity

Admin ID

**ADD**

## EMPLOYEE VIEW

Welcome SE project


ID  
2

Password  
\*\*\*

☐ Admin ☒ Employee

Log in

success  
login successfully  
OK



Offers Order Customer

Offer_ID	Offer_Details

Back Show Offers

Offers Order Customer

Employee ID  Customer ID

ID	Name	Price	Available Quantity

Meal ID  Total Price  Show Menu

Quantity

Order ID  Cancel Order Set Order Show Order

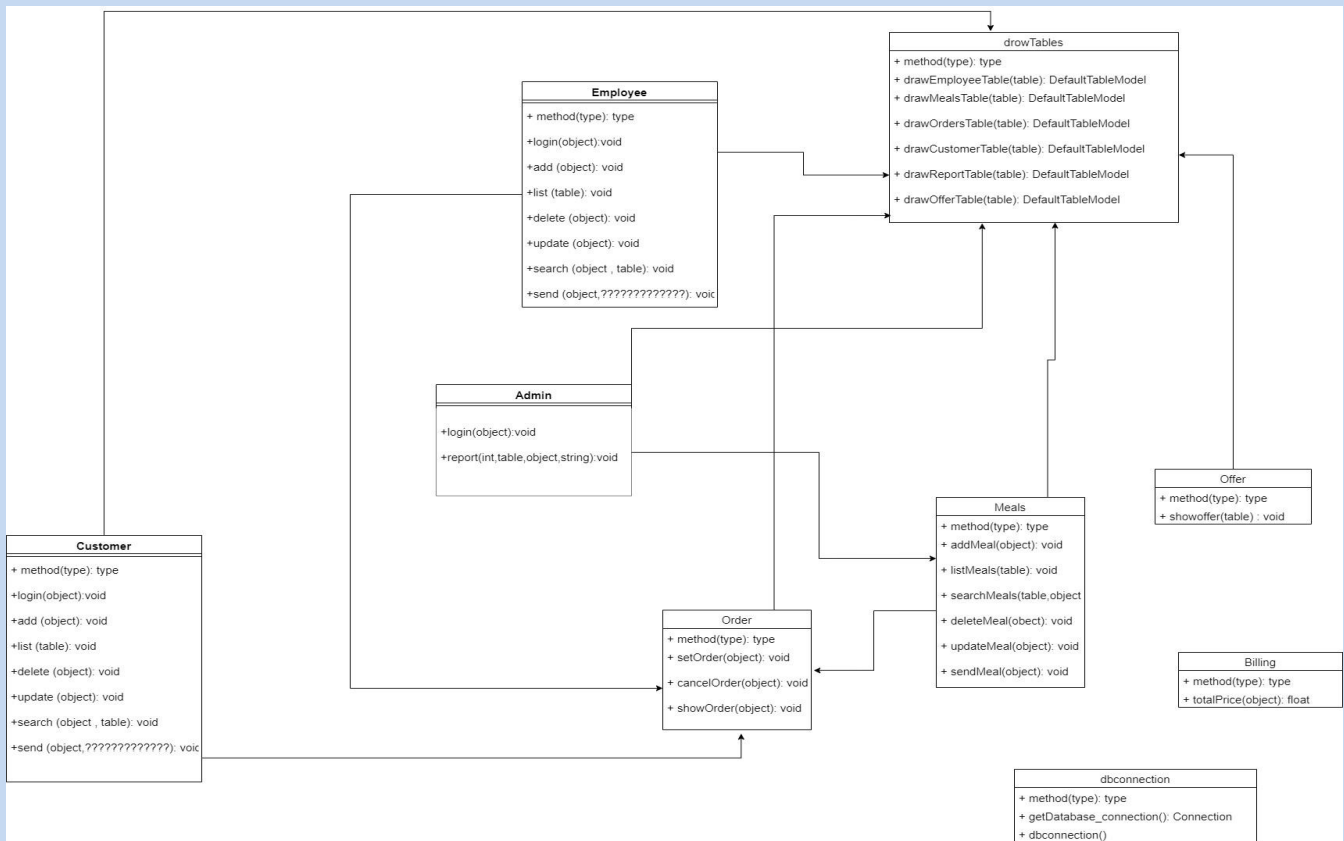
Offers Order Customer

ADD Customer Name

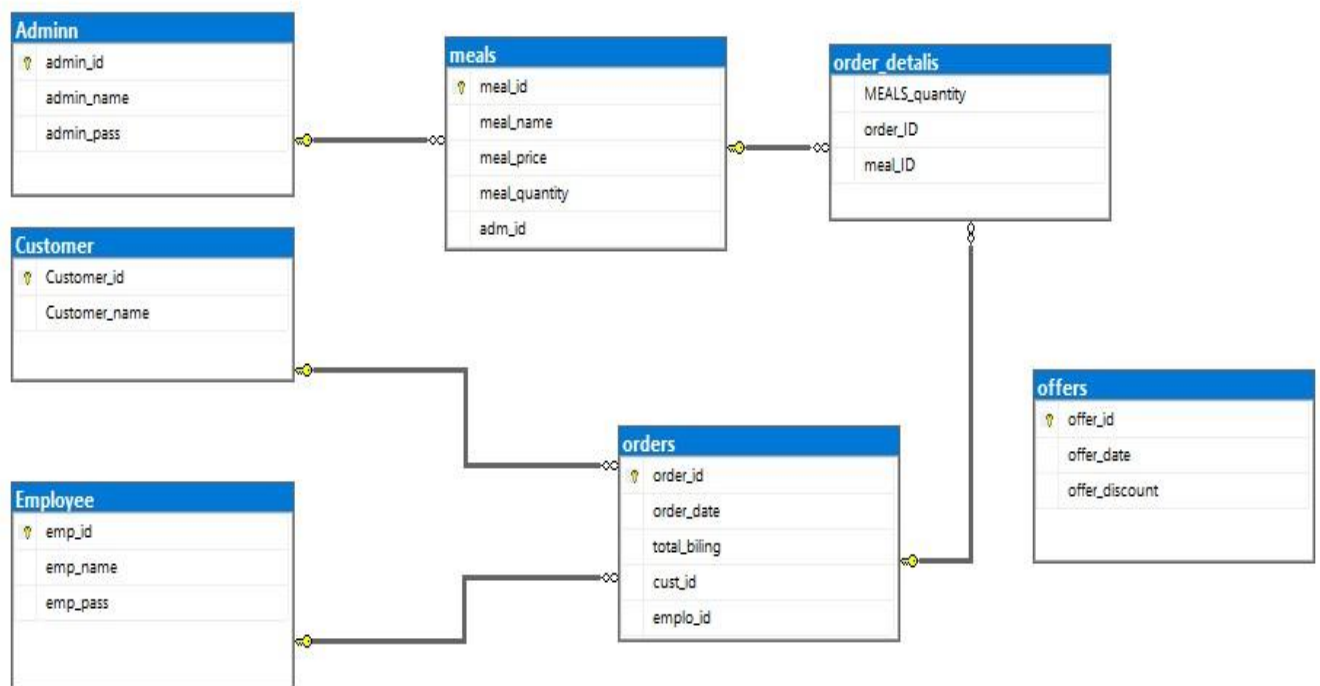
LIST Customer ID

SEARCH  ADD

# CLASS DIAGRAM



# DATABASE SCHEMA



# Design Patterns

## 1-SINGLETON PATTERN

**Type:** Creational Pattern.

**Context:** this pattern used to make only one instance from class and avoid creation of any farther instances.

**Problem:** creation of only one instance from certain class and create a global point to access to it.

**Solution:** make the constructor of this class as a private contractor to ensure that no other class will be able to create an instance form it & and make a static public method creates the single instance of this class (playing the role of global access point) and stores a reference to that object in a static private variable.

**Example:** We used this design pattern to make one object database and system classes.

**References:** The singleton design pattern is one of the twenty-three well-known "Gang of Four" design patterns written by Erich Gamma, Richard Helm, Ralph Johnson, and John Glissades, with a foreword by Grady Brooch.



## 2-IMMUTABLE PATTERN

**Type:** Creational Pattern. 72

**Context:** An immutable object is an object that has a state that never changes after creation.

**Problem:** create class with variables does not change after creation.

**Forces:** There must be no cases that would allow 'illegal' modification of an immutable object.

**Solution:** ensure that no way to set or modify instant variables except constructor & this class shouldn't have any setter or method can modify for this variables.

**Example:** We used this design pattern in database connect class which contain connection configurations.