



BSc (Hons) in computer Science

GRADUATE DIPLOMA IN SOFTWARE ENGINEERING

Restaurant POS & Management System

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List of Abbreviation

POS-Point of Sale

Admin-owner/manager

Introduction to Business

A restaurant is generally an establishment where the public may obtain meals or refreshments. People come to restaurants to have their breakfast, lunch and dinner. Nowadays lot of people would like to have their food from outside because of their busy life. There are many kind of restaurants in world with different type of foods.



Figure 1.1 (well-prepared table in a restaurant)

Restaurants are the leading businesses of the world. Some of them are KFC, Pizza hut, Macdonald etc. Burgers, Submarines, Crispy Chickens, different kind of Fried Rice, different kind of Beverages are some of foods and drinks which usually going in restaurants.



Figure 1.2 (Burger & submarine with chips)

Restaurants usually focus lovers, dinner outs, day outs, and parties as their customers. So there will be many people at same time and many orders. A successful restaurants should have a better management systems, skilful chiefs, friendly waiters and staff and mainly computerized system for saving time of the customers' when ordering and doing transactions.



Figure 1.3 (Simple idea about restaurant process)

Overview of the proposed solution

We have proposed POS and management system to make easier the work of the restaurant. This system uses a printer, a computer with wide monitor and other common computer accessories.



Figure 2.1 (Using POS system at a restaurant)

This system provides solution for Billing, Placing order, Managing order, Maintain customers' details, Reports (daily, monthly and yearly), keeping the details of the employee in the restaurant, table reservations etc.

Admins of the system have access for all the function of the system but cashiers/operator can do only ordering and managing them and maintaining customers' details. You can get better idea about function by referring the Use Case Diagram.

Placing orders, adding customers and managing the orders are main focused function of this system.

Admin have to add food quantity of the day in the morning and reaming of the pre-prepared foods are moved to the trash table and admin can manage that table.

We focus payments in cash, so system accepts only cash and card payment cannot be done via this system.

Customer can place orders by calling or walking to restaurant. And also food can be delivered or took away or taken at the restaurant.

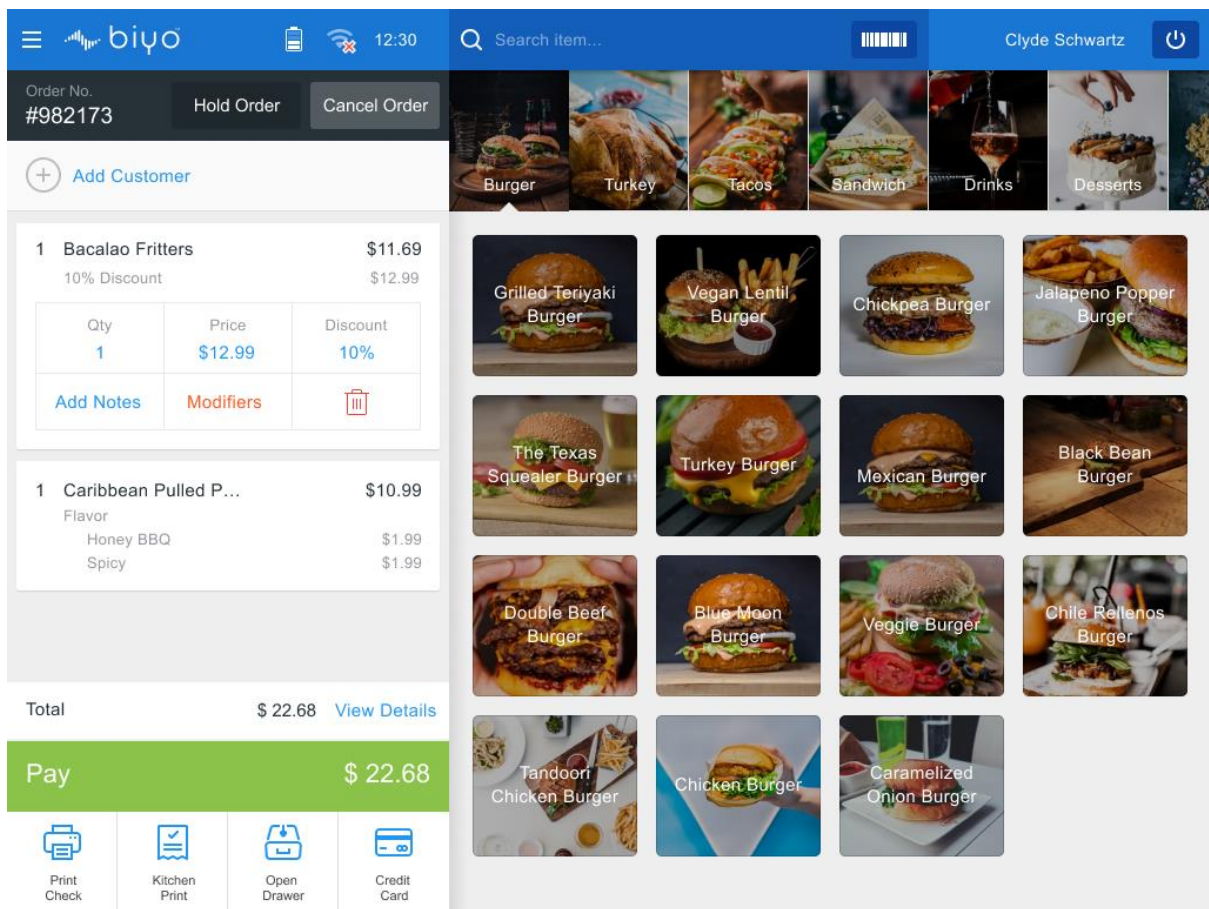


Figure 2.2 (Sample UI of a restaurant POS)

We use light user interfaces because the operator will have to look at the monitor for long time and also interfaces are attractive.

The navigation of between functions is very easy to understand and can response quickly.

When ordering customer name and mobile number should add to the system and it is a good database for their marketing.

Development Environment

| | |
|----------|------------------|
| IDE | InteliJ Idea |
| Language | Java |
| Version | JDK version(1.8) |
| DBMS | MySQL |

Table 1.1 (Development Environment)

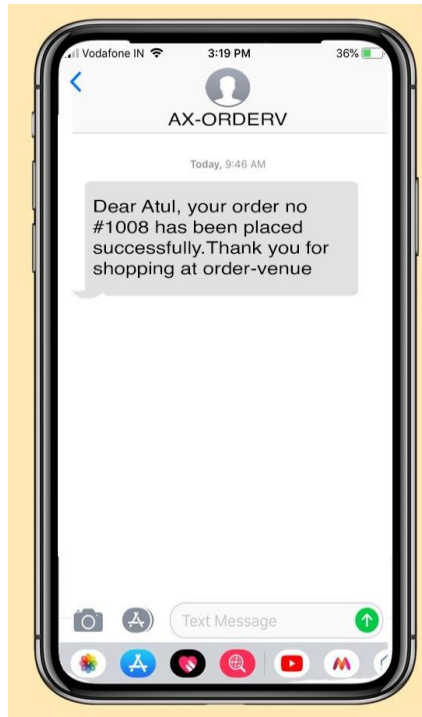


Figure 2.3 (Sample SMS of order Conformation)

Customer get SMS from the system by conforming the order and if it is a delivery order they get rider name and mobile number in the SMS.

| | | Kot No | 01 July 2019 |
|------------------|----------------------------|-----------------|--------------|
| | | 16 | |
| Customer | Visitor | OrderType Table | |
| Table No | T2 | Captain | |
| | | Waiter | |
| SrNo | Item | Qty | Remark |
| 1 | Coconut French Vanilla TUB | 1 | |
| 2 | MOUNTAIN DEW TIN | 1 | |
| 3 | PEPSI BLACK TIN | 1 | |
| 4 | Havmor Spoon | 1 | |
| 5 | MIRINDA TIN | 1 | |
| 6 | PEPSI TIN | 1 | |
| 7 | PEPSI SMALL BOTTLE | 1 | |
| 8 | Butter Scotch Milkshake | 1 | |
| 9 | Day and Night Scoop | 1 | |
| Total Qty | | 9 | |

Figure 2.4 (Sample Kitchen Order Ticket)

System print slips (kitchen order ticket) for the kitchen when order is placed and operator hand over it to kitchen.

Advantages of the solution

- Save the wasting time of both customer and staff by using this system because system do task instantly. Customer do not have to wait much time to place an order and pay the bill.
- Customer can get conformation about their order from received SMS. In delivery case customer can contact the rider while order is delivering.
- This system solution can improve customer experience and increase customer satisfaction and can offer quick and better service.
- It can handle the customers easily and quickly even at rush time.
- By using system can easily manage the food items and no need to do those manually.
- Systematic bills or invoices have more confidence than writing bills.
- Admin can get accurate business reports of sales and can get idea about how business is going and also he/she can do management by referring the system.
- System gives more security for the details of customer and staff.
- Quickly can give details about foods by referring the system.
- Working staff cannot cheat on you because system keeps all records of transactions.
- Can add table reservation and view them and manage anytime.
- System make easy to identify the most loyal customers and it helps to arrange loyalty programs.
- Easley can pass food items of the order to the kitchen by printed slips (kitchen order ticket) from the system. It save the time of next customer.

Use Case Diagram

Visual Paradigm Online Free Edition

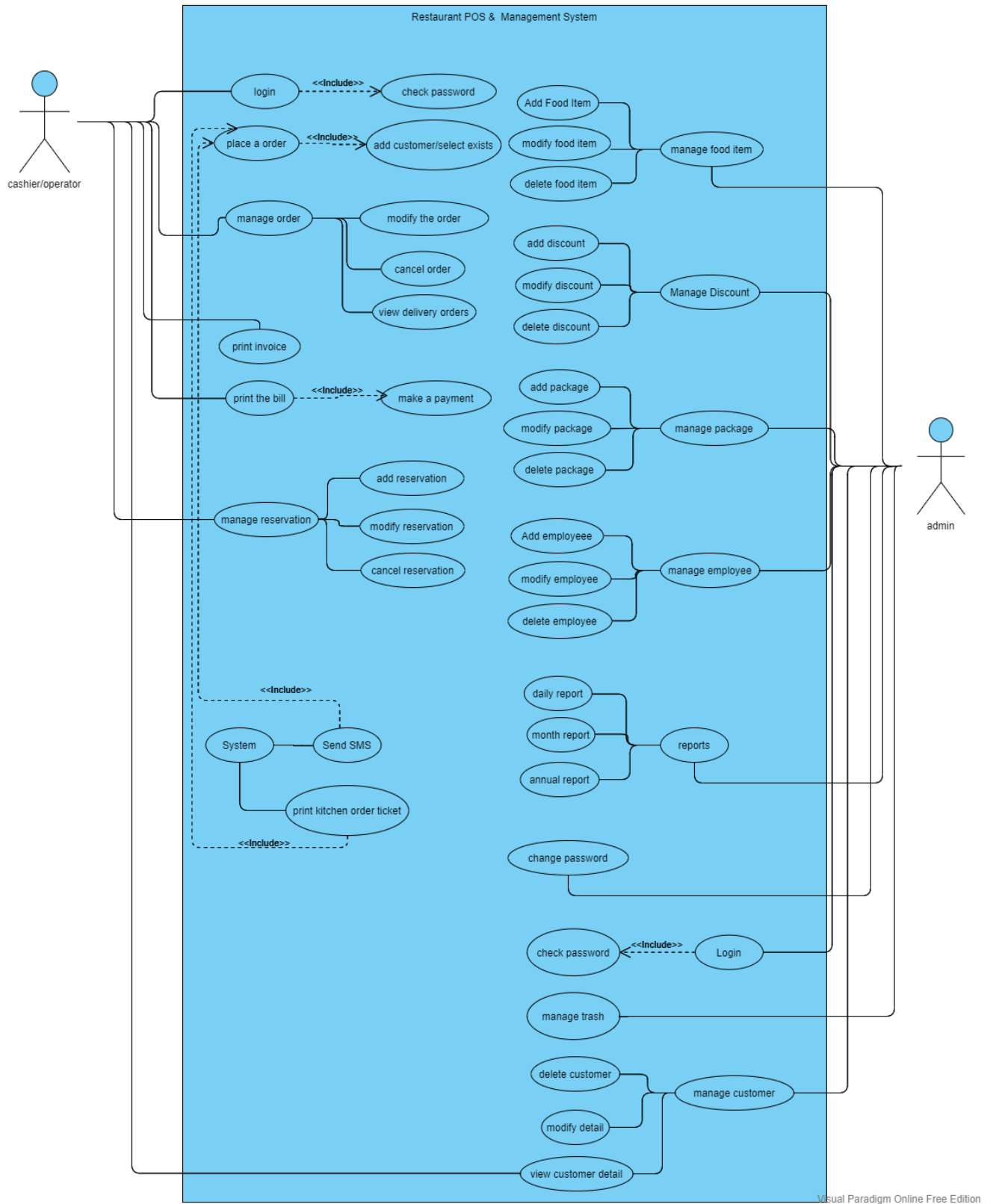


Figure 3.1 (Use Case Diagram)

Entity Relationship Diagram

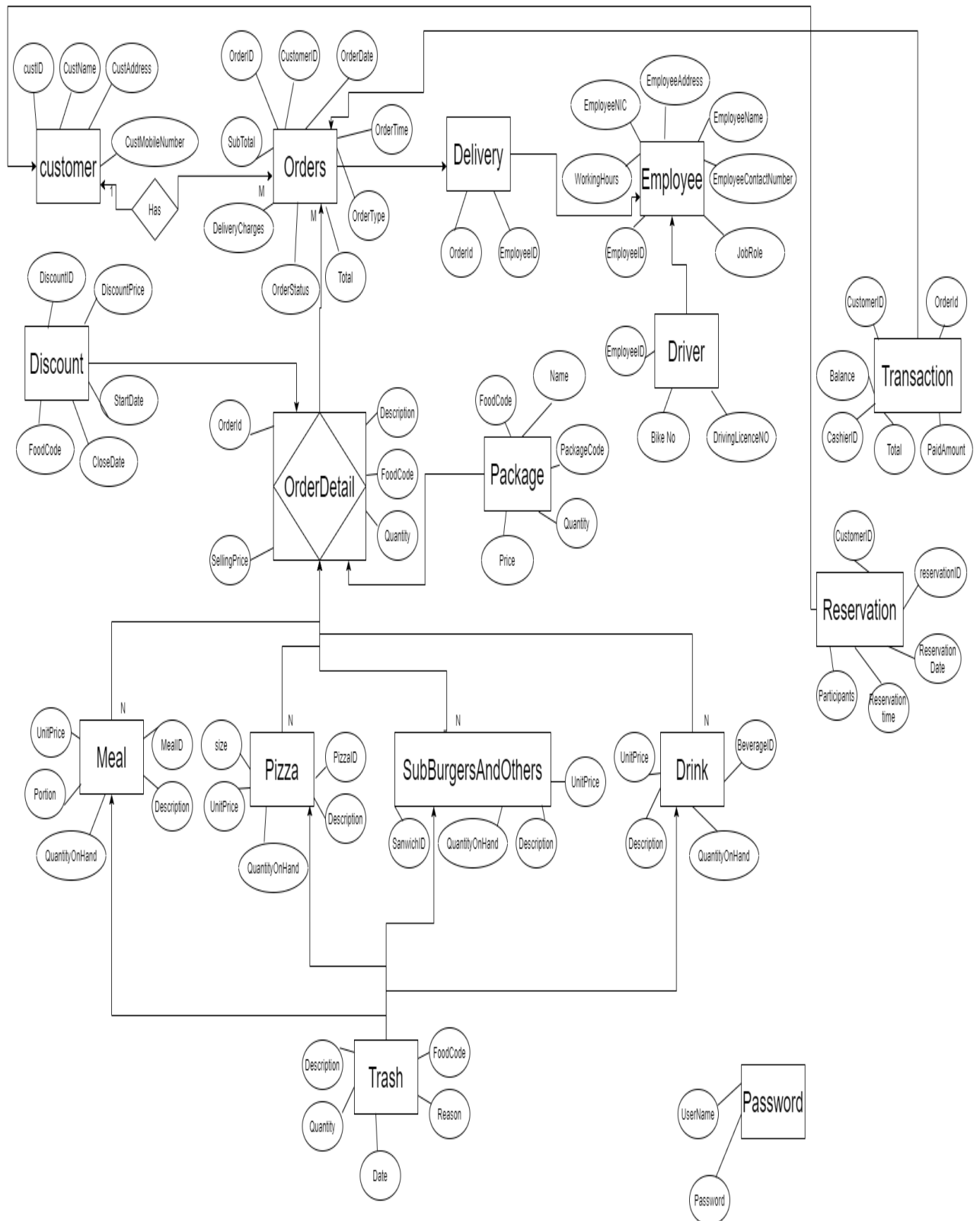


Figure 3.2 (Entity Relationship Diagram)

References

Point of sale (POS) - https://en.wikipedia.org/wiki/Point_of_sale

Restaurant management - <https://www.thebalancesmb.com/restaurant-management-facts-2888650>