Restaurant Management System

**General Problem Description:**

In the restaurant business around the world, there is often a concern with time and inventory management, mindfulness about non-food wastage as well as providing the best quality of food to customers. While this is currently managed through books or online lists, we look at the Database management system for an efficient time-work balance in restaurants complementing the hectic schedule followed to provide food.

The restaurant is organized into departments. Each department has a unique name, id, and an employee who can only manage one department. We track the start date of when the employee began managing the department.

Each department must have at least 2 employees to be operated. An Employee can only work in one department. The Employee has one daily schedule with a time slot and assigned with the task for the day. The employee supervises and gives the schedules for other employees. There is only one direct supervisor. The Supplier supplies all the required items to the inventory. The inventory can be managed by more than one employee. Only the department supervisors are eligible to manage an inventory.

The customer need not to necessarily place an order. When an order is placed, an employee takes the order from the customer and gives the order details to the chef. An employee can take more than one order. The customer is provided with a sign-up form where he needs to give details such as name, age, email, gender, phone number and can get a discount of 5%. The chef takes the order details and prepares the order. After the order is prepared, the food is served to the customer. An order can be served by at least one employee. But the employee serves the customer, only when he takes the order from that customer. The customer is given receipt after paying for the order. The customer can give feedback for each order and gets separate receipt that he/she places. The feedback contains order id, suggestion, rating.

**Data:**

**Employee:**

* Employees working in the restaurant have unique ID.
* Employee has Name, Email, Schedule, Gender, Address, Age, Phone Number.
* Each employee belongs to some department.
* Details: ID, Name, Date of birth, Gender, Email, Phone#, Address, Salary

**Customer:**

* A Customer’s Name, Phone Number, address is captured.
* We capture Email to send advertisements, promotions and other updates related to the restaurant.
* Customer’s Gender, Age, Order details is taken to analyze the preferences and patterns.
* Details: ID,Name, Age, Gender, Email, Phone#

**Department:**

* Restaurants need a varied levels of employees working with different responsibilities.
* Details: Dept\_ID, Dept\_Name,

**Inventory:**

* The inventory consists of all the food items needed for the menu preparation.
* Each food item’s Expiry Dates, Manufactured Dates, Quantity are captured in the database.
* It also consists of drinks, utensils, cooking appliances.
* Details: Item ID, Item Name, Manufactured Date, Expiration Date, Date purchased, Quantity purchased, Item Price, Quantity left for the day.

**Supplier:**

* A supplier supplies items to the inventory which are needed for a restaurant.
* Details: ID, Name

**Order:**

* The menu for the day is prepared based on the items and products present in the inventory.
* Based on the menu the customer can put his/her order. Each order has ID, type, name
* Details: ID, Type, Price, order placed time, served time, order category

**Feedback:**

* We gather the feedback from customers on their suggestions and complaints.
* Details: Order\_Id, Suggestion, Complaints, Rating for 10

**Daily\_Schedule:**

* An Employee gets his/her schedule.
* Details: Start\_Time, End\_Time, Task.

**Business Goals or Functional Requirements:**

* Increasing the daily sales by 10% at the end of next quarter.
* To maintain and present food at its best quality to the customer, making the Dine-in service exceed the To-Go service by 9% by the next quarter.
* Making the weekly visiting diners’ percentage exceed the monthly diner’s percentage.
* To influence design of order pricing, we find whether there is an improvement in the net sales on main-course orders by 5%.
* To manage our inventory, we find out on what day of the week the no of orders is exceeding 30.
* To increase marketing opportunities, finding out the customers from the age group of 18-25 visiting the restaurant.
* To achieve time management, we try to decrease the amount of time taken to serve an order to 10 minutes.
* Food wastage reduction is achieved by reducing the left-out quantity of food items to 10% per day.
* To Generate Receipt – Customer Name, Order Details, Prices, Date and Time, Restaurant Details, Method of Payment, Balance Amount
* Customers can select meals based on the order category available.
* Providing both Dine-in and To-Go options.