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**Team: 10**

## **Mapping**

The following details will indicate the business goals satisfied by the mapping submitted.

1. The most ordered dish: This can be identified from the orders relation and the item relation by counting the number of times the ItemID appears in the order relation.  
***Query: Retrieve Item ID and quantity from orders and item name from item.***
2. The least ordered dish: This can be identified from the orders relation and the item relation by counting the number of times the ItemID appears in the order relation.  
***Query: Retrieve Item ID and quantity from orders and item name from item.***
3. Based on the most ordered item we can identify the best chef: This can be identified from chef, item and prepares.  
***Query: Retrieve CempID from chef and prepares, ItemID from order and chef name from employee.***
4. The most crowded day of the month: This can be identified from the order relation and the order date relation by counting the number of time the order date appears in the order date relation.  
***Query: Retrieve date from orderdate and itemID and customerID from orders.***
5. The most profitable day of the month: This can be identified from the orders relation, orderdate relation and item relation by adding the item cost for all the dates and comparing them.  
***Query: Retrieve item ID from orders, orderdate from orderdate and item cost from item.***
6. Area placing most number of home deliveries orders: This can be obtained from delivers and delivery boy by counting the number of times item has been delivered in the delivers relation.  
***Query: Retrieve DempID from delivers relation and delarea from delivery boy.***
7. Generate profit reports: This can be obtained from orderdate, item, supervisor salary, chef salary, delivery boy hourly wage, waiter hourly wage, supplier cost.  
***Query: Retrieve itemID from order date, item cost from item, calculate the total cost of the month then this has to be compared with the sum of the salaries retrieved from the chef, supervisor, and hourly wages of waiter and delivery boy( it should be computed by multiplying the hours with the hourly cost )and supplier cost.***

8. Supplier management based on frequency of late delivery: This can be obtained from supply date and supplier.  
***Query: Retrieve supID from supdate with late delivery and retrieve the supplier name from supplier.***
9. Managing quantity of ingredients: Based on the most or the least ordered dish we can increase or decrease the quantity being ordered to the supplier. We can identify the ingredient for the item from the consists of relation and manage the quantity in the supply relation.  
***Query: Update quantity in supplies relation.***
10. Most frequent customer: we can identify this from the orders and customer relation by counting the number of times the CID appears in the orders relation.  
***Query: Count the number of time CID appears in the orders relation, and retrieve the customers Fname and Lname from the customer relation.***
11. Employee management: Based on the leave duration of the employees, we can assign tasks to other employees by obtaining data in the leave and employee relation.  
***Query: Retrieve empID from leave relation and empnName from employee relation.***

### **Relations planning to omit:**

- The following relations don't support any of our business goals:
  - Table, books, book, attends, dine-in date, delDate.
- We are planning to include the sub classes of employee: Supervisor, Chef, Waiter. in the employee entity itself, distinguishing each with an attribute called designation. We are not removing delivery boys as it has a distinctive attribute called delivery area which is required to solve a business goal.