

**Project Name:** Online Restaurant Management System

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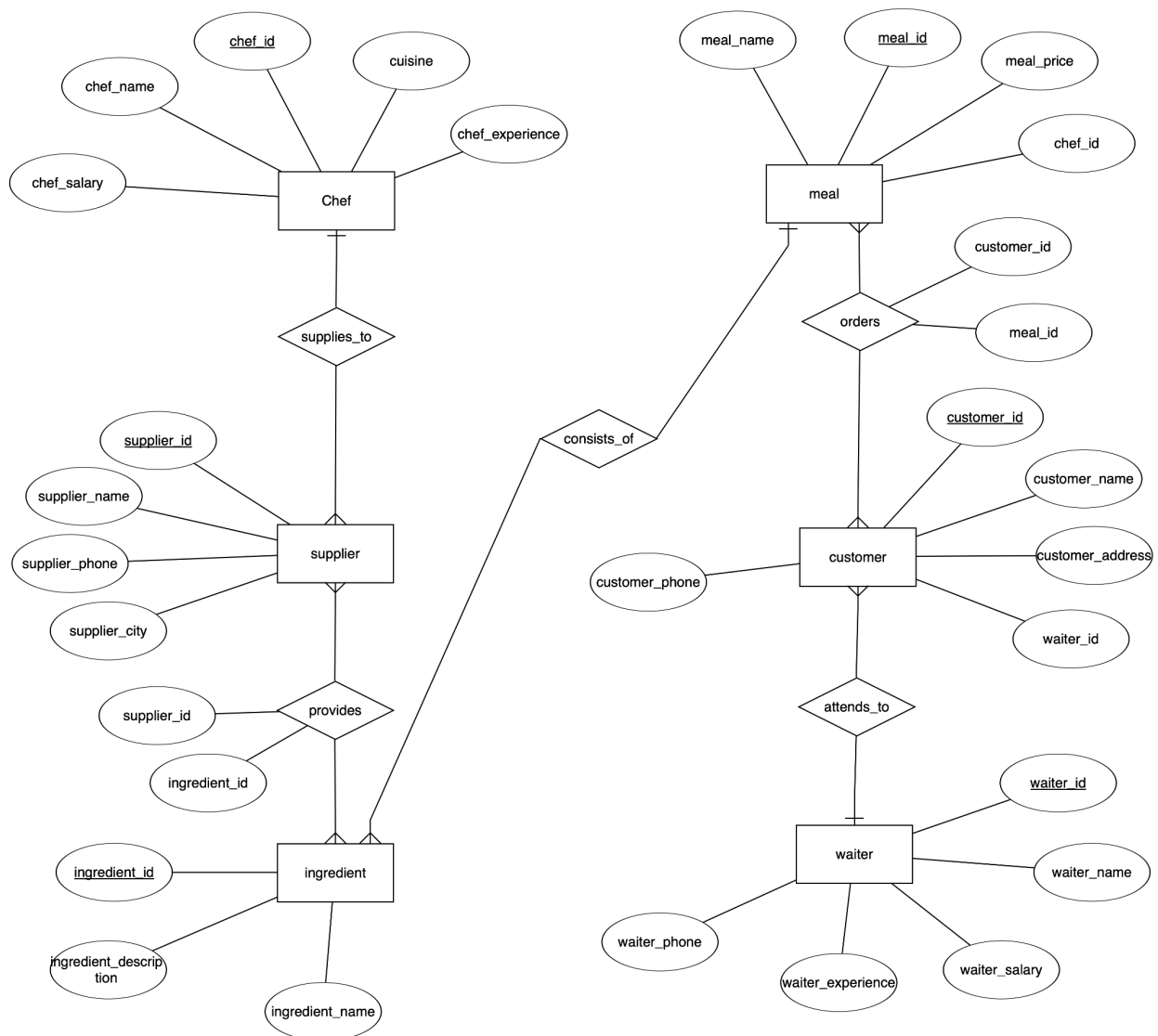
## Part - 2

### Deliveries:

**Part 2. ER Diagram and Relational Schema:** Produce an ER diagram for your domain, and its translation into a relational schema, including all keys and foreign keys. You should aim for a database with 6 – 10 tables. You should also submit evidence that you have created at least one table from your schema and populated it with at least one row.

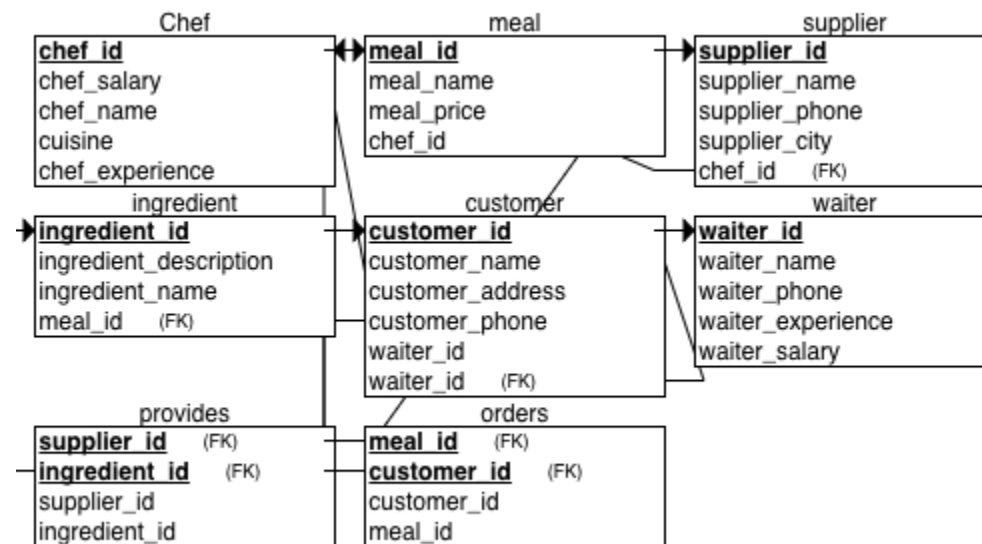
**Deliverable: Produce an ER diagram for your domain, and its translation into a relational schema, including all keys and foreign keys. You should aim for a database with 6 – 10 tables.**

### ER Diagram for the database of Online Restaurant Management System:



**Deliverable: Deliverable: Produce an ER diagram for your domain, and its translation into a relational schema, including all keys and foreign keys. You should aim for a database with 6 – 10 tables.**

**Relational Schema Diagram for the database of Online Restaurant Management System**



**Deliverable: Relational Schema tables statements in plain english for the database of Online Restaurant Management System**

We will be converting the above depicted ER diagram into db schema using the below format (from HW4):

*TableName1(Attribute1, Attribute2, Attribute3,...)  
Attribute2 is a foreign key referencing Table3.*

Underline the attributes making up the primary key of each table. Describe foreign keys in a separate line.

Chef (chef\_id INT, chef\_name VARCHAR(255), chef\_salary float, cuisine VARCHAR(255), chef\_experience INT)

CHEF

- Chef\_id is the unique id to identify the chef with a datatype of integer
- Chef\_name is Identity of the chef with a datatype of varchar
- Chef\_Salary is Remuneration of the chef at the end of the month with a datatype of float
- Cuisine is the name of the meal type with a datatype of varchar
- Chef\_experience is the number of years worked before with a datatype of int

Meal (meal\_id INT, meal\_name VARCHAR(255), meal\_price FLOAT, chef\_id INT)  
meal.chef\_id is a foreign key that references chef.chef\_id

#### MEAL

- Meal\_id is the unique identifier of the meal table with a datatype of integer
- Meal\_Name is the identifier of the meal with a datatype of varchar
- Meal\_Price is the amount tagged to a particular quantity of food with a datatype of float
- Chef\_id is the unique identifier comes to meal because of the many to one relationship

Supplier (supplier\_id INT, supplier\_name VARCHAR(255), supplier\_phone INT, supplier\_city VARCHAR(255))

#### SUPPLIER

- Supplier\_id is the unique id to identify the supplier with a datatype of integer
- Supplier\_name is the name to identify the supplier with a datatype of varchar
- Supplier\_phone is the digits used to get in contact with the supplier with a datatype of integer
- Supplier\_city is the town in which the supplier lives in with a datatype of varchar

Customer (customer\_id INT, customer\_name VARCHAR(255), customer\_address VARCHAR(255), customer\_phone INT), waiter\_id INT)  
customer.waiter\_id is a foreign key that references waiter.waiter\_id

#### CUSTOMER

- Customer\_id is the unique id to identify the customer with a datatype of integer
- Customer\_name is the name to identify the customer with a datatype of varchar
- Customer\_address is the particular place where the customer lives with a datatype of varchar
- Customer\_phone is the digits used to get in contact with the customer with a datatype of integer
- Waiter\_id is the unique identifier comes to customer because of the many to one relationship

Waiter (waiter\_id INT, waiter\_name VARCHAR(255), waiter\_salary FLOAT, waiter\_phone INT, waiter\_experience INT)

#### WAITER

- Waiter\_id is the unique id to identify the waiter with a datatype of integer
- Waiter\_name is the name to identify the waiter with a datatype of varchar
- Waiter\_salary is the remuneration of the waiter at the end of the month with a datatype of float
- Waiter\_phone is the digits used to get in contact with the waiter with a datatype of integer
- Waiter\_experience is the number of years the waiter worked before with a datatype of

integer

Ingredient (ingredient\_id INT, ingredient\_name VARCHAR(255), ingredient\_description VARCHAR(255))

#### INGREDIENT

- Ingredient\_id is the unique id to identify the waiter with a datatype of integer
- Ingredient\_name is the name to identify the ingredient with a datatype of varchar
- Ingredient\_description is what the meal is all about with a datatype of varchar

Orders (customer\_id INT, meal\_id INT)

orders.customer\_id is a foreign key that references customer.customer\_id

orders.meal\_id is a foreign key that references meal.meal\_id

#### ORDERS

- Customer\_id is the unique id to identify the customer with a datatype of integer
- Meal\_id the unique identifier of the meal table with a datatype of integer

Provides (supplier\_id INT, ingredient\_id INT)

provides.supplier\_id is a foreign key that references supplier.supplier\_id

provides.ingredient\_id is a foreign key that references ingredient.ingredient\_id

#### PROVIDES

- Supplier\_id is the unique id to identify the supplier with a datatype of integer
- Ingredient\_id is the unique id to identify the waiter with a datatype of integer

**Deliverable: You should also submit evidence that you have created at least one table from your schema and populated it with at least one row**

CREATE TABLE chef (chef\_id INT, chef\_name VARCHAR(255), chef\_salary float, cuisine VARCHAR(255), chef\_experience INT, PRIMARY KEY(chef\_id));

```
|fall2021db78=> select * from chef;
  chef_id | chef_name | chef_salary | cuisine | chef_experience
-----+-----+-----+-----+-----
      1 | Wasabi   |      67656 | Japanese |           7
      2 | Jeremiah |      87656 | Mexican  |          25
```

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## Previous Submissions: Part 1

There are three submissions for this project.

**Part 1. Data Description:** a) Select a subject area on which you wish to build a database. Write approximately one paragraph that gives a general description / background information on that subject area. b) List 20 questions (in English) that someone might want to ask about the domain. c) Describe what source you intend to use for data, and *how you intend to ingest the data into your database*. You should choose a subject area where you can easily get several hundred rows of data.

### Subject area:

Online Restaurant Management System is a web application. This system helps in automating day to day activity of a restaurant. Restaurant is a kind of business that serves people with ready-made food. This system helps in providing service facilities to restaurant and also to the customers. This online restaurant management system can be used by employees in a restaurant to handle the customers, their orders and can help them easily place orders. The services that are provided are food ordering, customer/waiter information management, menu information management and report. After a successful login the customer can access the menu page with the items listed according to the desired time. The main point of this system is to help restaurant administrator manage the restaurant business and help customers for online ordering. Users can search for a menu according to their choice i.e. according to price range, cuisine, and later they can order a meal.

### Questions someone might want to ask about the domain/database (we will translate 20 of these 23 listed below):

1. Who are all the chefs in this restaurant?
2. How much salary does the chef make for a particular experience?
3. What are the names of the suppliers?
4. What is the address of a particular supplier?
5. Customer details such as name or address or phone number?
6. Which waiter served a particular customer?
7. What is the price of a particular meal?
8. Which chef prepares a particular meal?
9. Which customer ordered which meal?
10. List all the suppliers from a particular city?
11. List salaries of all the waiters who have a minimum 5 years of experience?
12. Which ingredient is supplied by which supplier?
13. What are all the ingredients supplied by a particular supplier?
14. What are the cheapest meals that cost less than \$20?
15. How many customers did a particular waiter serve?

16. How many meals did a particular chef prepare?
17. What is the phone number of a particular waiter?
18. What are the meals that a particular customer orders?
19. List all the meal ids/names that were supplied by a particular waiter?
20. Who are all the chefs who can prepare Japanese dishes?
21. Who are all the chefs that have more than 10 years of experience?
22. Who are the most expensive waiters (highest salary)?
23. Which waiter is the least experienced in the restaurant and display the salary of that (those) waiter(s).

**Source of the data and how we plan to load it into database:**

We intend to take the data from any online restaurant and if that data does not have enough attributes available publicly, we will add some of our own data to answer the questions we listed above. For example: we will not find who is the chef for a meal, their salaries, or their suppliers. All these details are usually confidential and we have to create our own data for these attributes.

We plan to load the data via csv files.