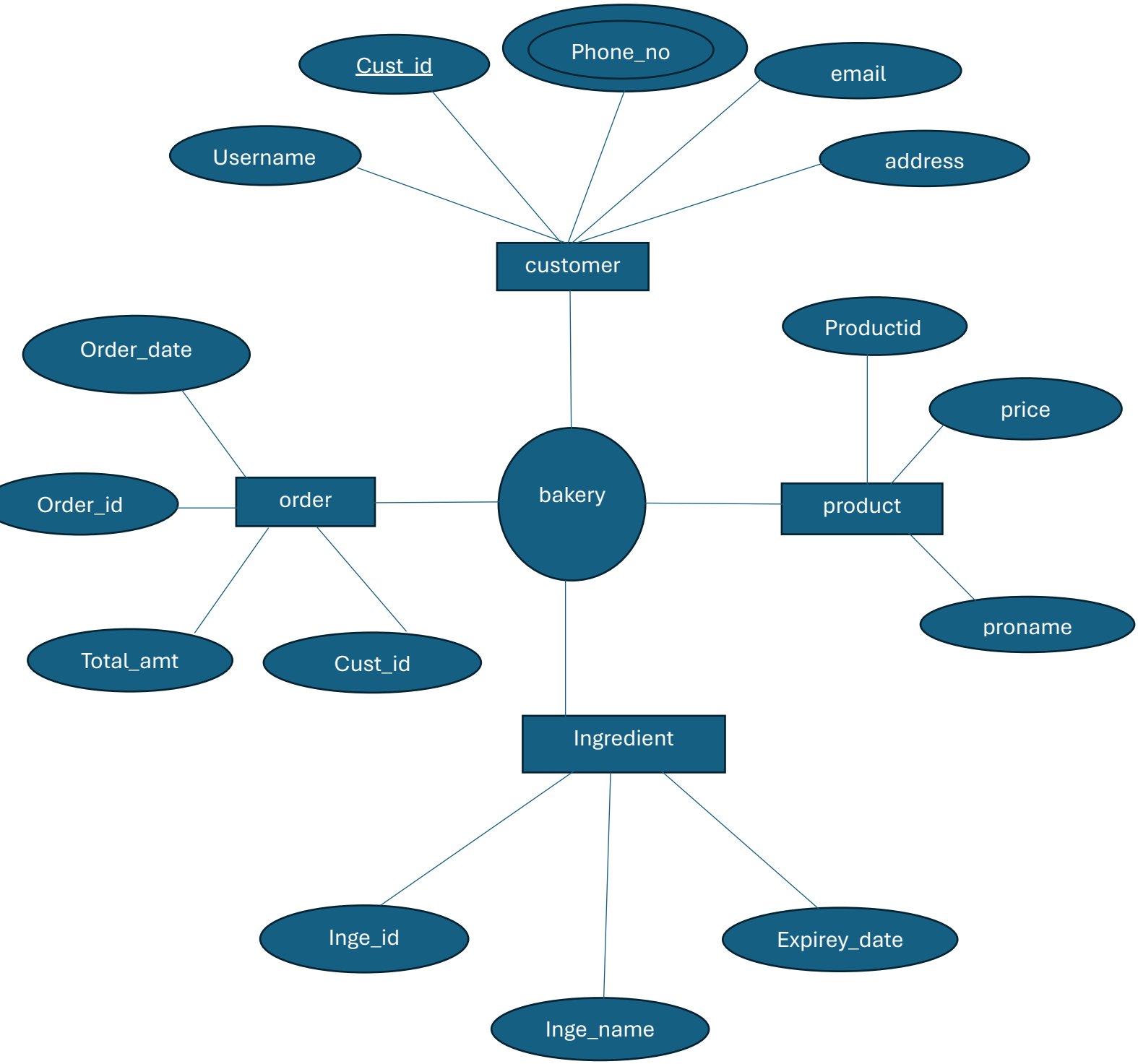
CASE STUDY FOR BAKERY



Tables

create table Customer(cust_id int primary key auto_increment, username varchar(20) unique,email varchar(20),address varchar(50),phone_no long)

insert into Customer values(100,"Rohit","rohit30@gmail.com","Mumbai",9274659874);

insert into Customer values(200,"Saee","saeeg45@gmail.com","Dadar",9764021321);
insert into Customer values(300,"Neha","nehag05@gmail.com","Bhiwandi",9467234156);

insert into Customer values(400,"Vedant","vedu245@gmail.com","Thane",8346512098);

insert into Customer values(500,"Meet","gmeet22@gmail.com","Kurla",8723546721);

insert into Customer values(600,"Aarya","aarya0112@gmail.com","Panvel",9272277252);

insert into Customer values(700,"Riya","riya2702@gmail.com","Kalyan",9236547896);

insert into Customer values(800,"Aaryan","aaruuu514@gmail.com","Dombivli",9786543120);

insert into Customer values(900,"Yash","yashp28@gmail.com","Diva",9876456374);

insert into Customer values(1000,"Aayush","aayush1501@gmail.com","Vasind",8308938111);

cust_id	username	email	address	phone_no
100	Rohit	rohit30@gmail.com	Mumbai	9274659874
200	Saee	saeeg45@gmail.com	Dadar	9764021321
300	Neha	nehag05@gmail.com	Bhiwandi	9467234156
400	Vedant	vedu245@gmail.com	Thane	8346512098
500	Meet	gmeet22@gmail.com	Kurla	8723546721
600	Aarya	aarya0112@gmail.com	Panvel	9272277252
700	Riya	riya2702@gmail.com	Kalyan	9236547896
800	Aaryan	aaruuu514@gmail.com	Dombivli	9786543120
900	Yash	yashp28@gmail.com	Diva	9876456374
1000	Aayush	aayush1501@gmail.com	Vasind	8308938111
NULL	NULL	NULL	NULL	NULL

Product Table

```
create table Product(productid int primary key,proname varchar(50),price int)
   insert into Product values(1,"Chocolate Cake",450);
    insert into Product values(2,"Vanilla Cake",350);
    insert into Product values(3,"Fruits Cake",250);
   insert into Product values(4,"Cookies",50);
   insert into Product values(5,"Cup Cake",60);
   insert into Product values(6,"Donuts",55);
   insert into Product values(7,"Cream Rolls",50);
   insert into Product values(8,"Pastries",40);
   insert into Product values(9,"Muffins",80);
   insert into Product values(10,"Breads",75);
   insert into Product values(11,"Chocolates",50);
   insert into Product values(12,"Chips",40);
   insert into Product values(13,"Gems",20);
   insert into Product values(14,"Chocolate Chip Cookies",90);
   insert into Product values(15,"Brownies",80);
```

productid	proname	price
1	Chocolate Cake	450
2	Vanilla Cake	350
3	Fruits Cake	250
4	Cookies	50
5	Cup Cake	60
6	Donuts	55
7	Cream Rolls	50
8	Pastries	40
9	Muffins	80
10	Breads	75
11	Chocolates	50
12	Chips	40
13	Gems	20
14	Chocolate Chip...	90
15	Brownies	80
NULL	NULL	NULL

Product 3

Order Table

```
create table Order1(Order_id int primary key,cust_id int,Total_amt float,Order_date date)
```

```
insert into Order1 values(20,100,190.00,'2024-10-10');
insert into Order1 values(21,400,99.50,'2024-12-10');
insert into Order1 values(22,1000,90.00,'2024-12-16');
insert into Order1 values(23,200,200.10,'2024-10-20');
insert into Order1 values(24,800,60.12,'2024-09-28');
insert into Order1 values(25,500,100.25,'2024-10-30');
insert into Order1 values(26,900,160.45,'2024-01-12');
insert into Order1 values(27,300,190.00,'2024-10-09');
insert into Order1 values(28,600,300.70,'2024-12-20');
insert into Order1 values(29,700,60.00,'2024-11-17');
```

Order_id	cust_id	Total_amt	Order_date
20	100	190	2024-10-10
21	400	99.5	2024-12-10
22	1000	90	2024-12-16
23	200	200.1	2024-10-20
24	800	60.12	2024-09-28
25	500	100.25	2024-10-30
26	900	160.45	2024-01-12
27	300	190	2024-10-09
28	600	300.7	2024-12-20
29	700	60	2024-11-17
NULL	NULL	NULL	NULL

Ingredient Table

```
create table Ingredient(inge_id int primary key,inge_name varchar(100),expiry_date date);

 insert into Ingredient values(111,'Flour','2024-12-31');

 insert into Ingredient values(112,'Sugar','2025-06-15');

  insert into Ingredient values(113,'Baking Powder','2026-03-10');

  insert into Ingredient values(114,'Chocolate Chips','2029-06-10');

  insert into Ingredient values(115,'Cocoa Powder','2027-04-01');

  insert into Ingredient values(116,'Milk','2024-10-31');

  insert into Ingredient values(117,'Cream','2025-05-15');

  insert into Ingredient values(118,'Vanilla Extract','2026-01-20');

  insert into Ingredient values(119,'Breads','2026-11-30');
```

inge_id	inge_name	expiry_date
111	Flour	2024-12-31
112	Sugar	2025-06-15
113	Baking Powder	2026-03-10
114	Chocolate Chips	2029-06-10
115	Cocoa Powder	2027-04-01
116	Milk	2024-10-31
117	Cream	2025-05-15
118	Vanilla Extract	2026-01-20
119	Breads	2026-11-30
NULL	NULL	NULL

Queries

1)Describe Ingredient Table:

→desc Ingredient;

Field	Type	Null	Key	Default	Extra
inge_id	int	NO	PRI	NULL	
inge_name	varchar(100)	YES		NULL	
expiry_date	date	YES		NULL	

2)To Insert New Value in Customer Table:

→insert into Customer values(1001,"Riddhi","jaan07@gmail.com","Bhandup",9876543657);

cust_id	username	email	address	phone_no
100	Rohit	rohit30@gmail.com	Mumbai	9274659874
200	Saee	saeeg45@gmail.com	Dadar	9764021321
300	Neha	nehag05@gmail.com	Bhiwandi	9467234156
400	Vedant	vedu245@gmail.com	Thane	8346512098
500	Meet	gmeet22@gmail.com	Kurla	8723546721
600	Aarya	aarya0112@gmail.com	Panvel	9272277252
700	Riya	riya2702@gmail.com	Kalyan	9236547896
800	Aaryan	aaruuu514@gmail.com	Dombivli	9786543120
900	Yash	yashp28@gmail.com	Diva	9876456374
1000	Aayush	aayush1501@gmail.com	Vasind	8308938111
1001	Riddhi	jaan07@gmail.com	Bhandup	9876543657
NULL	NULL	NULL	NULL	NULL

3) Select a specific customer by ID:

→select * from Customer where cust_id = 100;

cust_id	username	email	address	phone_no
100	Rohit	rohit30@gmail.com	Mumbai	9274659874
NULL	NULL	NULL	NULL	NULL

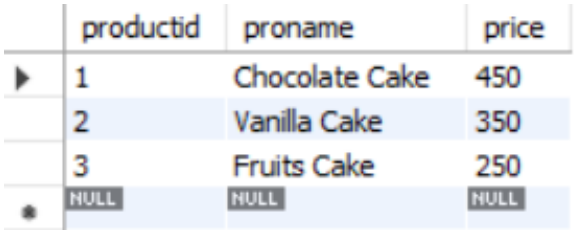
4) Select customers from Mumbai:

→select * from Customer where address='Mumbai';

cust_id	username	email	address	phone_no
100	Rohit	rohit30@gmail.com	Mumbai	9274659874
NULL	NULL	NULL	NULL	NULL

5) **Select products priced under 100:**

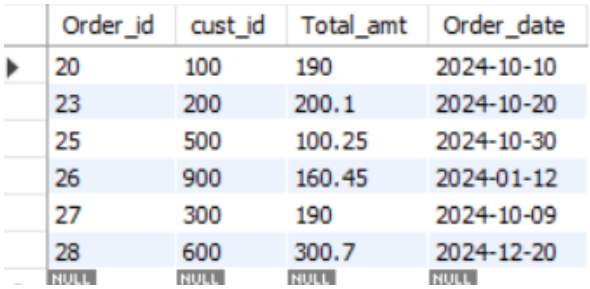
→select * from Product where price>100;



productid	proname	price
1	Chocolate Cake	450
2	Vanilla Cake	350
3	Fruits Cake	250
NULL	NULL	NULL

6) Select orders with total amount greater than 100:

→select * from Order1 where Total_amt>100;



Order_id	cust_id	Total_amt	Order_date
20	100	190	2024-10-10
23	200	200.1	2024-10-20
25	500	100.25	2024-10-30
26	900	160.45	2024-01-12
27	300	190	2024-10-09
28	600	300.7	2024-12-20
NULL	NULL	NULL	NULL

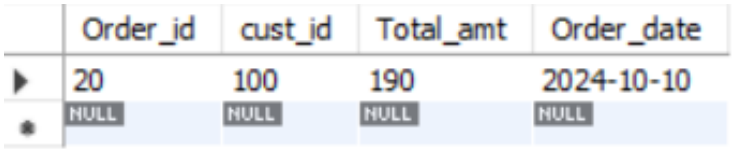
7) Select ingredients expiring after January 1, 2025:

→select * from Ingredient where expiry_date>'2025-01-01';

inge_id	inge_name	expiry_date
112	Sugar	2025-06-15
113	Baking Powder	2026-03-10
114	Chocolate Chips	2029-06-10
115	Cocoa Powder	2027-04-01
117	Cream	2025-05-15
118	Vanilla Extract	2026-01-20
119	Breads	2026-11-30
NULL	NULL	NULL

8) Select orders made on a specific date:

→select * from Order1 where Order_date='2024-10-10';



Order_id	cust_id	Total_amt	Order_date
20	100	190	2024-10-10
NULL	NULL	NULL	NULL

9) Select all customers ordered by username:

→select * from Customer order by username;

cust_id	username	email	address	phone_no
600	Aarya	aarya0112@gmail.com	Panvel	9272277252
800	Aaryan	aaruuu514@gmail.com	Dombivli	9786543120
1000	Aayush	aayush1501@gmail.com	Vasind	8308938111
500	Meet	gmeet22@gmail.com	Kurla	8723546721
300	Neha	nehag05@gmail.com	Bhiwandi	9467234156
1001	Riddhi	jaan07@gmail.com	Bhandup	9876543657
700	Riya	riya2702@gmail.com	Kalyan	9236547896
100	Rohit	rohit30@gmail.com	Mumbai	9274659874
200	Saee	saeeg45@gmail.com	Dadar	9764021321
400	Vedant	vedu245@gmail.com	Thane	8346512098
900	Yash	yashp28@gmail.com	Diva	9876456374

10) Select products ordered by price in descending order:

→select * from Product order by price desc;

productid	proname	price
1	Chocolate Cake	450
2	Vanilla Cake	350
3	Fruits Cake	250
14	Chocolate Chip Cookies	90
9	Muffins	80
15	Brownies	80
10	Breads	75
5	Cup Cake	60
6	Donuts	55
4	Cookies	50
7	Cream Rolls	50
11	Chocolates	50
8	Pastries	40
12	Chips	40
13	Gems	20

11) Select ingredients by expiry date:

→select * from Ingredient order by expiry_date;

inge_id	inge_name	expiry_date
116	Milk	2024-10-31
111	Flour	2024-12-31
117	Cream	2025-05-15
112	Sugar	2025-06-15
118	Vanilla Extract	2026-01-20
113	Baking Powder	2026-03-10
119	Breads	2026-11-30
115	Cocoa Powder	2027-04-01
114	Chocolate Chips	2029-06-10

12) Select top 5 most expensive products:

→select * from Product order by price desc limit 5;

productid	proname	price
1	Chocolate Cake	450
2	Vanilla Cake	350
3	Fruits Cake	250
14	Chocolate Chip Cookies	90
9	Muffins	80
NULL	NULL	NULL

13) Count total customers:

→select count(*) from Customer;

count(*)
11

14) Sum total amount from all orders:

→select sum(Total_amt) from Order1;

sum(Total_amt)
1451.1200141906738

15) Average price of products:

→select avg(price) from Product;

avg(price)
116.0000

16) Count customers by address:

→select address, count(*) from Customer group by address;

address	count(*)
Mumbai	1
Dadar	1
Bhiwandi	1
Thane	1
Kurla	1
Panvel	1
Kalyan	1
Dombivli	1
Diva	1
Vasind	1
Bhandup	1

17) Total amount spent by each customer:

→select cust_id, sum(Total_amt) from Order1 group by cust_id;

cust_id	sum(Total_amt)
100	190
400	99.5
1000	90
200	200.10000610351562
800	60.119998931884766
500	100.25
900	160.4499969482422
300	190
600	300.70001220703125
700	60

18) Average total amount per order:

→select avg(Total_amt) from Order1;

avg(Total_amt)
145.11200141906738

19) Count of ingredients by expiry year:

→select year(expiry_date) as Expiry_Year, count(*) from Ingredient group by Expiry_Year;

Expiry_Year	count(*)
2024	2
2025	2
2026	3
2029	1
2027	1

20) List all orders with customer names:

→select O.Order_id,C.username from Order1 O join Customer C on O.cust_id = C.cust_id;

Order_id	username
20	Rohit
21	Vedant
22	Aayush
23	Saee
24	Aaryan
25	Meet
26	Yash
27	Neha
28	Aarya
29	Riya

21) Get the highest order total:

→select max(Total_amt) from Order1;

max(Total_amt)
300.7

22) **Find the customer with the highest spending:**

→select cust_id from Order1 group by cust_id order by sum(Total_amt) desc limit 1;

cust_id
600

23) List products cheaper than the average product price:

→select * from Product where price<(select avg(price) from Product);

productid	proname	price
4	Cookies	50
5	Cup Cake	60
6	Donuts	55
7	Cream Rolls	50
8	Pastries	40
9	Muffins	80
10	Breads	75
11	Chocolates	50
12	Chips	40
13	Gems	20
14	Chocolate ...	90
15	Brownies	80

24) Update a customer’s phone number:

→update Customer set phone_no = 1234567890 where cust_id=100;

25) Delete an order by ID:

→delete from Order1 where Order_id=20;

26) Update product price:

→update Product set price=500 where productid=1;

27) Set expiry date of an ingredient:

→update Ingredient set expiry_date='2024-01-01' where inge_id=116;

28) Select customers whose username starts with 'A':

→select * from Customer where username like 'A%';

cust_id	username	email	address	phone_no
600	Aarya	aarya0112@gmail.com	Panvel	9272277252
800	Aaryan	aaruuu514@gmail.com	Dombivli	9786543120
1000	Aayush	aayush1501@gmail.com	Vasind	8308938111
NULL	NULL	NULL	NULL	NULL

29) Select products with names containing 'Cake':

→select * from Product where proname like '%Cake%';

productid	proname	price
1	Chocolate Cake	500
2	Vanilla Cake	350
3	Fruits Cake	250
5	Cup Cake	60
NULL	NULL	NULL

30) Select all products with a name length greater than 10:

→select * from Product where length(proname)>10;

productid	proname	price
1	Chocolate Cake	500
2	Vanilla Cake	350
3	Fruits Cake	250
7	Cream Rolls	50
14	Chocolate Chip Cookies	90
NULL	NULL	NULL

31) Select orders made in October 2024:

→select * from Order1 where month(Order_date)=10 and year(Order_date)=2024;

Order_id	cust_id	Total_amt	Order_date
23	200	200.1	2024-10-20
25	500	100.25	2024-10-30
27	300	190	2024-10-09
NULL	NULL	NULL	NULL

32) **Find orders placed in the last 30 days:**

→select * from Order1 where Order_date>=curdate()-interval 30 day;

Order_id	cust_id	Total_amt	Order_date
21	400	99.5	2024-12-10
22	1000	90	2024-12-16
23	200	200.1	2024-10-20
24	800	60.12	2024-09-28
25	500	100.25	2024-10-30
27	300	190	2024-10-09
28	600	300.7	2024-12-20
29	700	60	2024-11-17

33) Find the first order date for each customer:

→select cust_id, min(Order_date)as First_Order_Date from Order1 group by cust_id;

cust_id	First_Order_Date
400	2024-12-10
1000	2024-12-16
200	2024-10-20
800	2024-09-28
500	2024-10-30
900	2024-01-12
300	2024-10-09
600	2024-12-20
700	2024-11-17

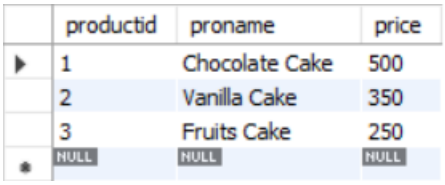
34) Count distinct addresses of customers:

→select count(distinct address)as Unique_Addresses from Customer;

Unique_Addresses
11

35) Find Products That Are More Expensive Than the Average Price of All Products:

→select * from Product where price>(select avg(price)from Product);



productid	proname	price
1	Chocolate Cake	500
2	Vanilla Cake	350
3	Fruits Cake	250
NULL	NULL	NULL