

ISHA SINGH

1BM19CS218

SECTION-4A

LAB-6

ORDER DATABASE

Schema Diagram

Salesman

<u>Salesman_id</u>	Name	City	Commission
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Customer

<u>Customer_id</u>	Cust_Name	City	Grade	Salesman_id
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Orders

<u>Ord_No</u>	Purchase_Amt	Ord_Date	Customer_id	Salesman_id
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```
create database order_lab6;
```

```
use order_lab6;
```

```
create table salesman(
```

```
salesman_id int,
```

```
name varchar(30),
```

```
city varchar(20),
```

```
commission varchar(10),
```

```
primary key(salesman_id)
```

```
);
```

```
create table customer(  
customer_id int,  
cust_name varchar(30),  
city varchar(20),  
grade int,  
salesman_id int,  
primary key(customer_id),  
foreign key (salesman_id) references salesman(salesman_id) on delete cascade  
);
```

```
create table orders(  
ord_no int,  
purchase_amt int,  
ord_date date,  
customer_id int,  
salesman_id int,  
primary key(ord_no),  
foreign key (customer_id) references customer(customer_id) on delete cascade,  
foreign key (salesman_id) references salesman(salesman_id) on delete cascade  
);
```

insert into salesman

```
values(1000,"John","Bangalore","25%"),(2000,"Ravi","Bangalore","20%"),  
(3000,"Kumar","Mysore","15%"),(4000,"Smith","Delhi","30%"),(5000,"Harsha","Hydrabad","15%");
```

insert into customer

```
values(10,"Preethi","Bangalore",100,1000),(11,"Vivek","Mangalore",300,1000),  
(12,"Bhaskar","Chennai",400,2000),(13,"Chethan","Bangalore",200,2000),  
(14,"Mamatha","Bangalore",400,3000);
```

insert into orders

values(50,5000,"2017-05-04",10,1000),(51,450,"2017-01-20",10,2000),
 (52,1000,"2017-02-24",13,2000),(53,3500,"2017-04-13",14,3000),(54,550,"2017-03-09",12,2000);

select * from salesman;

	salesman_id	name	city	commission
▶	1000	John	Bangalore	25%
	2000	Ravi	Bangalore	20%
	3000	Kumar	Mysore	15%
	4000	Smith	Delhi	30%
	5000	Harsha	Hydrabad	15%
•	NULL	NULL	NULL	NULL

select * from customer;

	customer_id	cust_name	city	grade	salesman_id
▶	10	Preethi	Bangalore	100	1000
	11	Vivek	Mangalore	300	1000
	12	Bhaskar	Chennai	400	2000
	13	Chethan	Bangalore	200	2000
	14	Mamatha	Bangalore	400	3000
•	NULL	NULL	NULL	NULL	NULL

select * from orders;

	ord_no	purchase_amt	ord_date	customer_id	salesman_id
▶	50	5000	2017-05-04	10	1000
	51	450	2017-01-20	10	2000
	52	1000	2017-02-24	13	2000
	53	3500	2017-04-13	14	3000
	54	550	2017-03-09	12	2000
•	NULL	NULL	NULL	NULL	NULL

QUERIES:

1. Count the customers with grades above Bangalore's average.

```

select count(distinct c.customer_id),grade
from customer c
where c.grade>(select avg(grade)
                from customer c
                where city="Bangalore")
group by grade;

```

	count(distinct c.customer_id)	grade
▶	1	300
	2	400

- Find the name and numbers of all salesmen who had more than one customer.

```

select s.salesman_id,s.name
from salesman s,customer c
where c.salesman_id=s.salesman_id
group by c.salesman_id
having count(*)>1;

```

	salesman_id	name
▶	1000	John
	2000	Ravi

- List all salesmen and indicate those who have and don't have customers in their cities (Use UNION operation.)

```

select s.salesman_id, name, cust_name, commission
FROM salesman s, customer c
WHERE s.CITY = c.CITY
UNION
SELECT SALESMAN_ID, NAME, "no match", COMMISSION
FROM SALESMAN
WHERE NOT CITY = ANY
(SELECT CITY

```

FROM CUSTOMER)

ORDER BY 2 DESC;

	salesman_id	name	cust_name	commission
▶	4000	Smith	no match	30%
	2000	Ravi	Preethi	20%
	2000	Ravi	Chethan	20%
	2000	Ravi	Mamatha	20%
	3000	Kumar	no match	15%
	1000	John	Preethi	25%
	1000	John	Chethan	25%
	1000	John	Mamatha	25%
	5000	Harsha	no match	15%

4. Create a view that finds the salesman who has the customer with the highest order of a day.

create view salesman_highest

as

select o1.salesman_id,ord_date,name

from orders o1,salesman s

where o1.salesman_id=s.salesman_id and o1.salesman_id in(select salesman_id

from orders o2

where o1.ord_date=o2.ord_date and purchase_amt =(select max(purchase_amt)

from orders o3

where o3.ord_date=o2.ord_date));

select * from salesman_highest;

	salesman_id	ord_date	name
▶	1000	2017-05-04	John
	2000	2017-01-20	Ravi
	2000	2017-02-24	Ravi
	3000	2017-04-13	Kumar
	2000	2017-03-09	Ravi

5. Demonstrate the DELETE operation by removing salesman with id 1000. All his orders must also be deleted.

DELETE FROM SALESMAN

WHERE SALESMAN_ID=1000;

select * from salesman;

	salesman_id	name	city	commission
▶	2000	Ravi	Bangalore	20%
	3000	Kumar	Mysore	15%
	4000	Smith	Delhi	30%
	5000	Harsha	Hydrabad	15%
★	NULL	NULL	NULL	NULL

select * from customer;

	customer_id	cust_name	city	grade	salesman_id
▶	12	Bhaskar	Chennai	400	2000
	13	Chethan	Bangalore	200	2000
	14	Mamatha	Bangalore	400	3000
★	NULL	NULL	NULL	NULL	NULL

select * from orders;

	ord_no	purchase_amt	ord_date	customer_id	salesman_id
▶	52	1000	2017-02-24	13	2000
	53	3500	2017-04-13	14	3000
	54	550	2017-03-09	12	2000
★	NULL	NULL	NULL	NULL	NULL