

QUES 1: Create Database.

```
mysql>
mysql>
mysql>
mysql> create database db1;
Query OK, 1 row affected (0.00 sec)

mysql> show databases;;
+-----+
| Database |
+-----+
| information_schema |
| db |
| db1 |
| mysql |
| performance_schema |
| sys |
+-----+
7 rows in set (0.00 sec)
```

QUES 2: Design Schema

```
mysql> desc salesman;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| sales_id | int(11) | NO | PRI | NULL | |
| name | varchar(20) | NO | | NULL | |
| city | varchar(20) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> desc customer;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customer_id | int(11) | NO | PRI | NULL | |
| customer_name | varchar(20) | YES | | NULL | |
| city | varchar(20) | YES | | NULL | |
| sales_id | int(11) | YES | MUL | NULL | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> desc orders;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| order_no | int(11) | NO | | NULL | |
| order_date | datetime | NO | | NULL | |
| sales_id | int(11) | YES | MUL | NULL | |
| customer_id | int(11) | YES | MUL | NULL | |
| qty | int(11) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

QUES 3: Create tables .

```
mysql>
mysql> create table salesman(sales_id INT NOT NULL, name varchar(20) NOT NULL, city varchar(20), PRIMARY KEY(sales_id));
Query OK, 0 rows affected (0.04 sec)

mysql> show tables;
+-----+
| Tables_in_db |
+-----+
| salesman      |
+-----+
1 row in set (0.00 sec)
```

Error 1072 (12000): Key column 'sales_id' doesn't exist in table

```
mysql>
mysql>
mysql> create table orders(order_no int NOT NULL, order_date datetime NOT NULL,sales_id int,foreign key(sales_id) references salesman(sales_id
));
Query OK, 0 rows affected (0.04 sec)

mysql> desc orders;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| order_no   | int(11)   | NO   |     | NULL    |       |
| order_date | datetime  | NO   |     | NULL    |       |
| sales_id   | int(11)   | YES  | MUL | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> create table customer(customer_id int NOT NULL,customer_name varchar(20), city varchar(20), sales_id int, primary key(customer_id),fore
ign key(sales_id) references salesman(sales_id));
Query OK, 0 rows affected (0.04 sec)
```

QUES 4: Insert sample data .

3 rows in set (0.00 sec)

```
mysql> insert into customer values (3001,'punita','delhi',1001);  
Query OK, 1 row affected (0.04 sec)
```

```
mysql> insert into customer values (3002,'abhishek','allahabad',1002);  
Query OK, 1 row affected (0.03 sec)
```

```
mysql> insert into customer values (3003,'isrg','delhi',1003);  
Query OK, 1 row affected (0.03 sec)
```

```
mysql>  
mysql>  
mysql> select * from customer;
```

customer_id	customer_name	city	sales_id
3001	punita	delhi	1001
3002	abhishek	allahabad	1002
3003	isrg	delhi	1003
3004	parveen	delhi	1001
3005	sahil	laxmi nagar	1002

5 rows in set (0.00 sec)

```
mysql> select * from orders;
```

order_no	order_date	sales_id	customer_id	qty
7001	2020-02-06 15:05:42	1001	3001	1
7002	2020-02-06 15:06:35	1002	3003	2
7003	2020-02-06 15:07:08	1001	3002	2
7004	2020-02-06 15:08:51	1002	3001	2
7005	2020-02-06 15:09:03	1003	3001	1
7006	2020-02-06 15:09:21	1003	3002	1

6 rows in set (0.00 sec)

```
mysql> select * from salesman;
```

sales_id	name	city
1001	raaz	delhi
1002	arun	bangalore
1003	aditya	chandigarah

QUES 5: Find the sales person have multiple orders.

```
mysql> select distinct(name),order_no from salesman join orders on salesman.sales_id = orders.sales_id and 1< (select count(*) from orders where orders.sales_id=salesman.sales_id);
```

name	order_no
raaz	7001
arun	7002
raaz	7003
arun	7004
aditya	7005
aditya	7006

6 rows in set (0.01 sec)

QUES 6: Find the all sales person details along with order details.

```
mysql>
mysql>
mysql> select * from salesman s join orders o on s.sales_id=o.sales_id;
```

sales_id	name	city	order_no	order_date	sales_id	customer_id	qty
1001	raaz	delhi	7001	2020-02-06 15:05:42	1001	3001	1
1002	arun	bangalore	7002	2020-02-06 15:06:35	1002	3003	2
1001	raaz	delhi	7003	2020-02-06 15:07:08	1001	3002	2
1002	arun	bangalore	7004	2020-02-06 15:08:51	1002	3001	2
1003	aditya	chandigarah	7005	2020-02-06 15:09:03	1003	3001	1
1003	aditya	chandigarah	7006	2020-02-06 15:09:21	1003	3002	1

6 rows in set (0.00 sec)

```
mysql> 
```

QUES 7:Create index.

```
mysql>
mysql>
mysql> create index shagun on customer(customer_id);
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> show index from customer;
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment
customer	0	PRIMARY	1	customer_id	A	4		NULL	NULL	BTREE	
customer	1	sales_id	1	sales_id	A	3		NULL	NULL	BTREE	
customer	1	shagun	1	customer_id	A	5		NULL	NULL	BTREE	

QUES 8:How to show index on a table.

```
mysql> show indexes from orders;
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment
orders	1	sales_id	1	sales_id	A	3	NULL	NULL	YES	BTREE	
orders	1	customer_id	1	customer_id	A	3	NULL	NULL	YES	BTREE	

```
2 rows in set (0.00 sec)
```

```
mysql> show indexes from salesman;
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment
Index_comment											
salesman	0	PRIMARY	1	sales_id	A	3	NULL	NULL		BTREE	

```
1 row in set (0.00 sec)
```

```
mysql>
mysql> show indexes from customer;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Table | Non_unique | Key_name | Seq_in_index | Column_name | Collation | Cardinality | Sub_part | Packed | Null | Index_type | Comment | Index_comment |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| customer | 0 | PRIMARY | 1 | customer_id | A | 5 | NULL | NULL | | BTREE | | |
| customer | 1 | sales_id | 1 | sales_id | A | 5 | NULL | NULL | YES | BTREE | | |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

QUES 9: Find the order number, sale person name, along with the customer to whom that order belongs to

```
mysql>
mysql>
mysql>
mysql> select order_no,name,orders.customer_id from salesman join orders on salesman.sales_id=orders.sales_id join customer on orders.customer_id=customer.customer_id;
+-----+-----+-----+
| order_no | name  | customer_id |
+-----+-----+-----+
| 7001 | raaz  | 3001 |
| 7002 | arun  | 3003 |
| 7003 | raaz  | 3002 |
| 7004 | arun  | 3001 |
| 7005 | aditya | 3001 |
| 7006 | aditya | 3002 |
+-----+-----+-----+
6 rows in set (0.00 sec)

mysql> 
```