**4. Foreign key:**

* **Establish the relation between two tables.**
* **It can be applied column level or table level.**

**Characteristics of FK:**

* + - * **Table in which foreign key belongs is known as parent table**
      * **Where it is used is known as child table**
      * **It must and should be define as primary key in its parents table**
      * **Column assign as a foreign key can be null can accept duplicate and null value.**
      * **We can not insert a value in a column define as foreign key which is not present in the parent table column.**

**5. check :**

* + - * **This constraints is usedto restrict the value of column between a range.**
      * **Its like condition checking before saving data into a column .**
      * **It can be applied column level or table level.**

1. **WAQTD databases**

**//++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++**

**show databases**

**-> ;**

**+--------------------+**

**| Database |**

**+--------------------+**

**| information\_schema |**

**| mysql |**

**| performance\_schema |**

**| sys |**

**+--------------------+**

**4 rows in set (0.34 sec)**

1. **WAQTD Tables**

**//++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++**

**mysql> create database ustglobal;**

**Query OK, 1 row affected (0.16 sec)**

**mysql> use ustglobal;**

**Database changed**

**mysql> show tables;**

**Empty set (0.06 sec)**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*CREATE TABLE\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**3) mysql> create table student(id int,name varchar(120),emailId varchar(200));**

**Query OK, 0 rows affected (0.78 sec)**

**4)WAQTD to describe table**

**=> mysql> show tables;**

**+---------------------+**

**| Tables\_in\_ustglobal |**

**+---------------------+**

**| student |**

**+---------------------+**

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

**mysql> desc student**

**-> ;**

**+---------+--------------+------+-----+---------+-------+**

**| Field | Type | Null | Key | Default | Extra |**

**+---------+--------------+------+-----+---------+-------+**

**| id | int(11) | YES | | NULL | |**

**| name | varchar(120) | YES | | NULL | |**

**| emailId | varchar(200) | YES | | NULL | |**

**+---------+--------------+------+-----+---------+-------+**

**3 rows in set (0.17 sec)**

**5.WAQT drop table**

**🡺 drop table student;**

**Query OK, 0 rows affected (0.36 sec)**

**6.) WAQDT drop database**

**🡺 drop database ustglobal;**

**Query OK, 1 row affected (0.44 sec)**

**7). WAQTD ALTER TABLE WITH ADD NEW COLUMN**

**🡺mysql> alter table student add mobno varchar(10);**

**Query OK, 0 rows affected (0.72 sec)**

**Records: 0 Duplicates: 0 Warnings: 0**

**mysql> desc student;**

**+---------+--------------+------+-----+---------+-------+**

**| Field | Type | Null | Key | Default | Extra |**

**+---------+--------------+------+-----+---------+-------+**

**| id | int(11) | YES | | NULL | |**

**| name | varchar(120) | YES | | NULL | |**

**| emailId | varchar(200) | YES | | NULL | |**

**| mobno | varchar(10) | YES | | NULL | |**

**+---------+--------------+------+-----+---------+-------+**

**4 rows in set (0.02 sec)**

**8) Alter table with drop column**

**🡺**

**mysql> alter table student drop age;**

**Query OK, 0 rows affected (0.66 sec)**

**Records: 0 Duplicates: 0 Warnings: 0**

**9) WAQTD Rename column name**

**🡺alter table student change mobno mob varchar(10);**

**Query OK, 0 rows affected (0.19 sec)**

**Records: 0 Duplicates: 0 Warnings: 0**

**10) WAQDT Rename the table name**

**🡺 rename table student to student\_info;**

**Query OK, 0 rows affected (0.27 sec)**

**mysql> desc student\_info;**

**+---------+--------------+------+-----+---------+-------+**

**| Field | Type | Null | Key | Default | Extra |**

**+---------+--------------+------+-----+---------+-------+**

**| id | int(11) | YES | | NULL | |**

**| name | varchar(120) | YES | | NULL | |**

**| emailId | varchar(200) | YES | | NULL | |**

**| address | varchar(100) | YES | | NULL | |**

**+---------+--------------+------+-----+---------+-------+**

**4 rows in set (0.00 sec)**

**show tables;**

**+---------------------+**

**| Tables\_in\_ustglobal |**

**+---------------------+**

**| student\_info |**

**+---------------------+**

**1 row in set (0.01 sec)**

**10) WAQTD insert a record in table**

**🡺 insert into student\_info values(1,'sukanya','sukanya@gmail.com','pune');**

**Query OK, 1 row affected (0.22 sec)**

**mysql> select \* from student\_info;**

**+------+---------+-------------------+---------+**

**| id | name | emailId | address |**

**+------+---------+-------------------+---------+**

**| 1 | sukanya | sukanya@gmail.com | pune |**

**+------+---------+-------------------+---------+**

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

**mysql> insert into student\_info (id,name,emailId,address) values(1,'shweta','shweta@gmail.com','pune');**

**Query OK, 1 row affected (0.11 sec)**

**mysql> select \* from student\_info;**

**+------+---------+-------------------+---------+**

**| id | name | emailId | address |**

**+------+---------+-------------------+---------+**

**| 1 | sukanya | sukanya@gmail.com | pune |**

**| 1 | shweta | shweta@gmail.com | pune |**

**+------+---------+-------------------+---------+**

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

**11) WAQTD data in the table**

**select \* from student\_info;**

**+------+---------+-------------------+---------+**

**| id | name | emailId | address |**

**+------+---------+-------------------+---------+**

**| 1 | sukanya | sukanya@gmail.com | pune |**

**| 1 | shweta | shweta@gmail.com | pune |**

**+------+---------+-------------------+---------+**

**insert into student\_info values(1,'sukanya','sukanya@gmail.com','pune'),(3,'pratik','pratik@gmail.com','barshi'),(4,'rohini','rohi@gmail.com','banglore');**

**Query OK, 3 rows affected (0.08 sec)**

**Records: 3 Duplicates: 0 Warnings: 0**

**mysql> select \* from student\_info;**

**+------+---------+-------------------+----------+**

**| id | name | emailId | address |**

**+------+---------+-------------------+----------+**

**| 1 | sukanya | sukanya@gmail.com | pune |**

**| 1 | shweta | shweta@gmail.com | pune |**

**| 1 | sukanya | sukanya@gmail.com | pune |**

**| 3 | pratik | pratik@gmail.com | barshi |**

**| 4 | rohini | rohi@gmail.com | banglore |**

**+------+---------+-------------------+----------+**

**5 rows in set (0.00 sec)**

**mysql> insert into student\_info(id,name) values (6,'supriya');**

**Query OK, 1 row affected (0.09 sec)**

**mysql> select \* from student\_info;**

**+------+---------+-------------------+----------+**

**| id | name | emailId | address |**

**+------+---------+-------------------+----------+**

**| 1 | sukanya | sukanya@gmail.com | pune |**

**| 2| shweta | shweta@gmail.com | pune |**

**| 1 | sukanya | sukanya@gmail.com | pune |**

**| 3 | pratik | pratik@gmail.com | barshi |**

**| 4 | rohini | rohi@gmail.com | banglore |**

**| 6 | supriya | NULL | NULL |**

**+------+---------+-------------------+----------+**

**6 rows in set (0.00 sec)**

**12).WAQTD update the records**

**🡺update student\_info set id=2 where name='shweta';**

**Query OK, 1 row affected (0.33 sec)**

**Rows matched: 1 Changed: 1 Warnings: 0**

**mysql> select \* from student\_info;**

**+------+---------+-------------------+----------+**

**| id | name | emailId | address |**

**+------+---------+-------------------+----------+**

**| 1 | sukanya | sukanya@gmail.com | pune |**

**| 2 | shweta | shweta@gmail.com | pune |**

**| 1 | sukanya | sukanya@gmail.com | pune |**

**| 3 | pratik | pratik@gmail.com | barshi |**

**| 4 | rohini | rohi@gmail.com | banglore |**

**| 6 | supriya | NULL | NULL |**

**+------+---------+-------------------+----------+**

**6 rows in set (0.00 sec)**

**14)WAQTD TO DELETE**

**🡺 delete from student\_info where id=1;**

**Query OK, 2 rows affected (0.16 sec)**

**mysql> select \* from student\_info;**

**+------+---------+------------------+----------+**

**| id | name | emailId | address |**

**+------+---------+------------------+----------+**

**| 2 | shweta | shweta@gmail.com | pune |**

**| 3 | pratik | pratik@gmail.com | barshi |**

**| 4 | rohini | rohi@gmail.com | banglore |**

**| 6 | supriya | NULL | NULL |**

**+------+---------+------------------+----------+**

**4 rows in set (0.00 sec)**

**15)WAQTD insert multiple data**

**🡺insert into student\_info values(7,'sagar','sagar@gmail.com','nagpur'),(8,'sarthak','sarthu@gmail.com','udgir'),(9,'priya','priya@gmail.com','latur');**

**Query OK, 3 rows affected (0.14 sec)**

**Records: 3 Duplicates: 0 Warnings: 0**

**mysql> select \* from student\_info;**

**+------+---------+------------------+----------+**

**| id | name | emailId | address |**

**+------+---------+------------------+----------+**

**| 2 | shweta | shweta@gmail.com | pune |**

**| 3 | pratik | pratik@gmail.com | barshi |**

**| 4 | rohini | rohi@gmail.com | banglore |**

**| 6 | supriya | NULL | NULL |**

**| 7 | sagar | sagar@gmail.com | nagpur |**

**| 8 | sarthak | sarthu@gmail.com | udgir |**

**| 9 | priya | priya@gmail.com | latur |**

**+------+---------+------------------+----------+**

**7 rows in set (0.00 sec)**

**16).WAQTD truncate table**

**🡺create table tb as select \* from student\_info;**

**Query OK, 7 rows affected (0.47 sec)**

**Records: 7 Duplicates: 0 Warnings: 0**

**mysql> select \* from tb;**

**+------+---------+------------------+----------+**

**| id | name | emailId | address |**

**+------+---------+------------------+----------+**

**| 2 | shweta | shweta@gmail.com | pune |**

**| 3 | pratik | pratik@gmail.com | barshi |**

**| 4 | rohini | rohi@gmail.com | banglore |**

**| 6 | supriya | NULL | NULL |**

**| 7 | sagar | sagar@gmail.com | nagpur |**

**| 8 | sarthak | sarthu@gmail.com | udgir |**

**| 9 | priya | priya@gmail.com | latur |**

**+------+---------+------------------+----------+**

**7 rows in set (0.00 sec)**

**mysql> truncate table tb;**

**Query OK, 0 rows affected (0.34 sec)**

**mysql> select \* from tb;**

**Empty set (0.00 sec)**

**//-----------------------PROJECTION-----------------------------------------------------**

**17).WAQTD**

**🡺mysql> select id,name from student\_info;**

**+------+---------+**

**| id | name |**

**+------+---------+**

**| 2 | shweta |**

**| 3 | pratik |**

**| 4 | rohini |**

**| 6 | supriya |**

**| 7 | sagar |**

**| 8 | sarthak |**

**| 9 | priya |**

**+------+---------+**

**7 rows in set (0.00 sec)**

**18).WAQTD to display id name from the table whose id is 4**

**select \* from student\_info where id=4;**

**+------+--------+----------------+----------+**

**| id | name | emailId | address |**

**+------+--------+----------------+----------+**

**| 4 | rohini | rohi@gmail.com | banglore |**

**+------+--------+----------------+----------+**

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

**🡺//ALIAS NAME**

**19)**

**🡺select age,age+10 as newage from employee\_info;**

**+------+--------+**

**| age | newage |**

**+------+--------+**

**| 21 | 31 |**

**| 21 | 31 |**

**| 22 | 32 |**

**| 26 | 36 |**

**| 20 | 30 |**

**| 25 | 35 |**

**| 22 | 32 |**

**| 19 | 29 |**

**| 25 | 35 |**

**| 30 | 40 |**

**| 20 | 30 |**

**| 29 | 39 |**

**| 24 | 34 |**

**| 25 | 35 |**

**| 27 | 37 |**

**+------+--------+**

**15 rows in set (0.20 sec)**

**mysql> select age,age+10 newage from employee\_info;**

**+------+--------+**

**| age | newage |**

**+------+--------+**

**| 21 | 31 |**

**| 21 | 31 |**

**| 22 | 32 |**

**| 26 | 36 |**

**| 20 | 30 |**

**| 25 | 35 |**

**| 22 | 32 |**

**| 19 | 29 |**

**| 25 | 35 |**

**| 30 | 40 |**

**| 20 | 30 |**

**| 29 | 39 |**

**| 24 | 34 |**

**| 25 | 35 |**

**| 27 | 37 |**

**+------+--------+**

**15 rows in set (0.00 sec)**

**20)WAQTD id,name ,bloodgrp give alias to bloodgrp**

**🡺mysql> select id,name,bloodgrp as bg from employee\_info;**

**+----+-----------+------+**

**| id | name | bg |**

**+----+-----------+------+**

**| 1 | sukanya | o+ve |**

**| 2 | shweta | o+ve |**

**| 3 | pratik | A+ve |**

**| 4 | sagar | B-ve |**

**| 5 | sushant | B+ve |**

**| 6 | mansi | B+ve |**

**| 7 | Aishwarya | A+ve |**

**| 8 | rohini | A-ve |**

**| 9 | sanjivani | O+ve |**

**| 10 | satish | b+ve |**

**| 11 | pravin | b-ve |**

**| 12 | omprakash | A-ve |**

**| 13 | pranita | o-ve |**

**| 14 | simran | A-ve |**

**| 15 | shital | o-ve |**

**+----+-----------+------+**

**21)WAQTD name,salary,designation ,annual sal**

**🡺 select name,salary,designation,salary\*12 as annualsal from employee\_info;**

**+-----------+--------+--------------------+-----------+**

**| name | salary | designation | annualsal |**

**+-----------+--------+--------------------+-----------+**

**| sukanya | 30000 | software developer | 360000 |**

**| shweta | 30000 | software developer | 360000 |**

**| pratik | 35000 | HR | 420000 |**

**| sagar | 24000 | clerk | 288000 |**

**| sushant | 27000 | salesman | 324000 |**

**| mansi | 30000 | tester | 360000 |**

**| Aishwarya | 30000 | Analyst | 360000 |**

**| rohini | 70000 | software developer | 840000 |**

**| sanjivani | 90000 | HR | 1080000 |**

**| satish | 40000 | clerk | 480000 |**

**| pravin | 20000 | salesman | 240000 |**

**| omprakash | 23000 | tester | 276000 |**

**| pranita | 44000 | analyst | 528000 |**

**| simran | 45000 | software developer | 540000 |**

**| shital | 55000 | HR | 660000 |**

**+-----------+--------+--------------------+-----------+**

**15 rows in set (0.00 sec)**

**22)WAQTD to give the alias name for all the column present in ur table**

**🡺mysql> select id eid,name empname,emailId empemail,designation job,mobileno phno,age eage,dob dateofbirth,Doj joining,salary sal,bloodgrp bg,Did deptid**

**-> from employee\_info;**

**+-----+-----------+---------------------+--------------------+-----------+------+-------------+------------+-------+------+--------+**

**| eid | empname | empemail | job | phno | eage | dateofbirth | joining | sal | bg | deptid |**

**+-----+-----------+---------------------+--------------------+-----------+------+-------------+------------+-------+------+--------+**

**| 1 | sukanya | sukanya@gmail.com | software developer | 855482 | 21 | 1997-04-18 | 2019-07-25 | 30000 | o+ve | 10 |**

**| 2 | shweta | shweta@gmail.com | software developer | 7218099 | 21 | 1997-08-14 | 2019-07-25 | 30000 | o+ve | 20 |**

**| 3 | pratik | pratik@gmail.com | HR | 72180899 | 22 | 1997-08-02 | 2019-08-08 | 35000 | A+ve | 30 |**

**| 4 | sagar | sagar@gmail.com | clerk | 70876499 | 26 | 1994-08-02 | 2015-06-08 | 24000 | B-ve | 40 |**

**| 5 | sushant | sushant@gmail.com | salesman | 7098654 | 20 | 1998-07-07 | 2017-05-09 | 27000 | B+ve | 40 |**

**| 6 | mansi | mansi@gmail.com | tester | 97098647 | 25 | 1993-04-04 | 2018-02-09 | 30000 | B+ve | 10 |**

**| 7 | Aishwarya | aishu@gmail.com | Analyst | 97065488 | 22 | 1997-09-21 | 2016-01-05 | 30000 | A+ve | 20 |**

**| 8 | rohini | rohini@gmail.com | software developer | 72180688 | 19 | 2000-07-12 | 2019-10-25 | 70000 | A-ve | 30 |**

**| 9 | sanjivani | sanju@gmail.com | HR | 95613617 | 25 | 1994-06-06 | 2015-07-18 | 90000 | O+ve | 40 |**

**| 10 | satish | satish@gmail.com | clerk | 87888889 | 30 | 1990-11-04 | 2001-05-09 | 40000 | b+ve | 10 |**

**| 11 | pravin | pravin@gmail.com | salesman | 97888889 | 20 | 1999-09-14 | 2013-03-09 | 20000 | b-ve | 20 |**

**| 12 | omprakash | omprakash@gmail.com | tester | 77988889 | 29 | 1991-11-19 | 2011-11-29 | 23000 | A-ve | 30 |**

**| 13 | pranita | pranita@gmail.com | analyst | 977988889 | 24 | 1996-10-11 | 2010-10-19 | 44000 | o-ve | 40 |**

**| 14 | simran | simran@gmail.com | software developer | 987988889 | 25 | 1996-08-13 | 2013-10-19 | 45000 | A-ve | 10 |**

**| 15 | shital | shital@gmail.com | HR | 90088889 | 27 | 1993-01-25 | 2010-11-09 | 55000 | o-ve | 20 |**

**+-----+-----------+---------------------+--------------------+-----------+------+-------------+------------+-------+------+--------+**

**15 rows in set (0.00 sec)**

**23)WAQTD unique designation**

**🡺mysql> select distinct(designation) from employee\_info;**

**+--------------------+**

**| designation |**

**+--------------------+**

**| software developer |**

**| HR |**

**| clerk |**

**| salesman |**

**| tester |**

**| Analyst |**

**+--------------------+**

**6 rows in set (0.09 sec)**

**mysql> select distinct designation from employee\_info;**

**+--------------------+**

**| designation |**

**+--------------------+**

**| software developer |**

**| HR |**

**| clerk |**

**| salesman |**

**| tester |**

**| Analyst |**

**+--------------------+**

**6 rows in set (0.00 sec)**

**mysql> select COUNT(DISTINCT designation) from employee\_info;**

**+-----------------------------+**

**| COUNT(DISTINCT designation) |**

**+-----------------------------+**

**| 6 |**

**+-----------------------------+**

**1 row in set (0.08 sec)**

**24)WAQTD unique deptno**

**🡺mysql> select distinct did from employee\_info;**

**+------+**

**| did |**

**+------+**

**| 10 |**

**| 20 |**

**| 30 |**

**| 40 |**

**+------+**

**4 rows in set (0.00 sec)**

**🡺**

**25)WAQTD distinct dept id ,designation**

**🡺mysql> select distinct did , designation from employee\_info;**

**+------+--------------------+**

**| did | designation |**

**+------+--------------------+**

**| 10 | software developer |**

**| 20 | software developer |**

**| 30 | HR |**

**| 40 | clerk |**

**| 40 | salesman |**

**| 10 | tester |**

**| 20 | Analyst |**

**| 30 | software developer |**

**| 40 | HR |**

**| 10 | clerk |**

**| 20 | salesman |**

**| 30 | tester |**

**| 40 | analyst |**

**| 20 | HR |**

**+------+--------------------+**

**14 rows in set (0.00 sec)**

**26)WAQTD decrement salary,incement by 5000 n per day salary**

**🡺 select name,salary,salary+5000 as incementsal ,salary-5000 as decreementsal,salary/30 as perdaysal from employee\_info;**

**+-----------+--------+-------------+---------------+-----------+**

**| name | salary | incementsal | decreementsal | perdaysal |**

**+-----------+--------+-------------+---------------+-----------+**

**| sukanya | 30000 | 35000 | 25000 | 1000.0000 |**

**| shweta | 30000 | 35000 | 25000 | 1000.0000 |**

**| pratik | 35000 | 40000 | 30000 | 1166.6667 |**

**| sagar | 24000 | 29000 | 19000 | 800.0000 |**

**| sushant | 27000 | 32000 | 22000 | 900.0000 |**

**| mansi | 30000 | 35000 | 25000 | 1000.0000 |**

**| Aishwarya | 30000 | 35000 | 25000 | 1000.0000 |**

**| rohini | 70000 | 75000 | 65000 | 2333.3333 |**

**| sanjivani | 90000 | 95000 | 85000 | 3000.0000 |**

**| satish | 40000 | 45000 | 35000 | 1333.3333 |**

**| pravin | 20000 | 25000 | 15000 | 666.6667 |**

**| omprakash | 23000 | 28000 | 18000 | 766.6667 |**

**| pranita | 44000 | 49000 | 39000 | 1466.6667 |**

**| simran | 45000 | 50000 | 40000 | 1500.0000 |**

**| shital | 55000 | 60000 | 50000 | 1833.3333 |**

**+-----------+--------+-------------+---------------+-----------+**

**15 rows in set (0.00 sec)**

**27)WAQTD all the records excluding deptno10**

**🡺mysql> select \* from employee\_info where did<>10;**

**+----+-----------+---------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+-----------+---------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**| 2 | shweta | shweta@gmail.com | software developer | 7218099 | 21 | 1997-08-14 | 2019-07-25 | 30000 | o+ve | 20 |**

**| 3 | pratik | pratik@gmail.com | HR | 72180899 | 22 | 1997-08-02 | 2019-08-08 | 35000 | A+ve | 30 |**

**| 4 | sagar | sagar@gmail.com | clerk | 70876499 | 26 | 1994-08-02 | 2015-06-08 | 24000 | B-ve | 40 |**

**| 5 | sushant | sushant@gmail.com | salesman | 7098654 | 20 | 1998-07-07 | 2017-05-09 | 27000 | B+ve | 40 |**

**| 7 | Aishwarya | aishu@gmail.com | Analyst | 97065488 | 22 | 1997-09-21 | 2016-01-05 | 30000 | A+ve | 20 |**

**| 8 | rohini | rohini@gmail.com | software developer | 72180688 | 19 | 2000-07-12 | 2019-10-25 | 70000 | A-ve | 30 |**

**| 9 | sanjivani | sanju@gmail.com | HR | 95613617 | 25 | 1994-06-06 | 2015-07-18 | 90000 | O+ve | 40 |**

**| 11 | pravin | pravin@gmail.com | salesman | 97888889 | 20 | 1999-09-14 | 2013-03-09 | 20000 | b-ve | 20 |**

**| 12 | omprakash | omprakash@gmail.com | tester | 77988889 | 29 | 1991-11-19 | 2011-11-29 | 23000 | A-ve | 30 |**

**| 13 | pranita | pranita@gmail.com | analyst | 977988889 | 24 | 1996-10-11 | 2010-10-19 | 44000 | o-ve | 40 |**

**| 15 | shital | shital@gmail.com | HR | 90088889 | 27 | 1993-01-25 | 2010-11-09 | 55000 | o-ve | 20 |**

**+----+-----------+---------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**11 rows in set (0.13 sec)**

**29)WAQTD NME,DESignation,mobile,age,whose sal>40000**

**🡺mysql> select name,designation,age,salary,mobileno from employee\_info**

**-> where salary>40000;**

**+-----------+--------------------+------+--------+-----------+**

**| name | designation | age | salary | mobileno |**

**+-----------+--------------------+------+--------+-----------+**

**| rohini | software developer | 19 | 70000 | 72180688 |**

**| sanjivani | HR | 25 | 90000 | 95613617 |**

**| pranita | analyst | 24 | 44000 | 977988889 |**

**| simran | software developer | 25 | 45000 | 987988889 |**

**| shital | HR | 27 | 55000 | 90088889 |**

**+-----------+--------------------+------+--------+-----------+**

**5 rows in set (0.00 sec)**

**30) )WAQTD NME,DESignation,mobile,age,whose sal<40000**

**🡺mysql> select name,designation,age,salary from employee\_info**

**-> where salary<40000;**

**+-----------+--------------------+------+--------+**

**| name | designation | age | salary |**

**+-----------+--------------------+------+--------+**

**| sukanya | software developer | 21 | 30000 |**

**| shweta | software developer | 21 | 30000 |**

**| pratik | HR | 22 | 35000 |**

**| sagar | clerk | 26 | 24000 |**

**| sushant | salesman | 20 | 27000 |**

**| mansi | tester | 25 | 30000 |**

**| Aishwarya | Analyst | 22 | 30000 |**

**| pravin | salesman | 20 | 20000 |**

**| omprakash | tester | 29 | 23000 |**

**+-----------+--------------------+------+--------+**

**9 rows in set (0.00 sec)**

**31)WAQTD NaME,DESignation,mobile,age,whose sal>=40000**

**🡺**

**mysql> select name,designation,age,salary from employee\_info**

**-> where salary>=40000;**

**+-----------+--------------------+------+--------+**

**| name | designation | age | salary |**

**+-----------+--------------------+------+--------+**

**| rohini | software developer | 19 | 70000 |**

**| sanjivani | HR | 25 | 90000 |**

**| satish | clerk | 30 | 40000 |**

**| pranita | analyst | 24 | 44000 |**

**| simran | software developer | 25 | 45000 |**

**| shital | HR | 27 | 55000 |**

**+-----------+--------------------+------+--------+**

**6 rows in set (0.02 sec)**

**+++++++++++++++++++++++++LOGICAL OPERATORS++++++++++++++++++++++++**

**31)WAQTD all records who is working dept no 20 only if salary>10000**

**🡺 mysql> select \* from employee\_info**

**-> where did=10**

**-> and salary>10000;**

**+----+---------+-------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+---------+-------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**| 1 | sukanya | sukanya@gmail.com | software developer | 855482 | 21 | 1997-04-18 | 2019-07-25 | 30000 | o+ve | 10 |**

**| 6 | mansi | mansi@gmail.com | tester | 97098647 | 25 | 1993-04-04 | 2018-02-09 | 30000 | B+ve | 10 |**

**| 10 | satish | satish@gmail.com | clerk | 87888889 | 30 | 1990-11-04 | 2001-05-09 | 40000 | b+ve | 10 |**

**| 14 | simran | simran@gmail.com | software developer | 987988889 | 25 | 1996-08-13 | 2013-10-19 | 45000 | A-ve | 10 |**

**+----+---------+-------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**4 rows in set (0.08 sec)**

**32)WAQTD all records whose salay is 44000 and job=analyst**

**🡺mysql> select \* from employee\_info where salary=44000 and designation='analyst';**

**+----+---------+-------------------+-------------+-----------+------+------------+------------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+---------+-------------------+-------------+-----------+------+------------+------------+--------+----------+------+**

**| 13 | pranita | pranita@gmail.com | analyst | 977988889 | 24 | 1996-10-11 | 2010-10-19 | 44000 | o-ve | 40 |**

**+----+---------+-------------------+-------------+-----------+------+------------+------------+--------+----------+------+**

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

**33\_WAQTD all the records who is working in deptNo 20 or deptno 60**

**🡺 select \* from employee\_info where did=10 or did=60;**

**34)WAQTD name ,salary,email where job=’tester’ age>=20**

**🡺 select name,salary,emailId from employee\_info where designation='tester' or age>=20;**

**35)WAQTD name of employee who is working as hr, in dept 30 or who is job=clerk and sal>20000**

**🡺select name from employee\_info where (designation='hr' and did=30) or (designation='clerk' and salary>=20000);**

**36)WAQTD USE OF NOT OPERATOR**

**🡺 select \* from employee\_info where not designation='software developer';**

**37) WAQTD all the employee excluding did 20 or 30**

**🡺select \* from employee\_info where not (did=20 or did=30);**

**38)WAQTD all the details excluding salesaman who all are working in dept=40;**

**🡺 select \* from employee\_info where not (designation='salesman' and did=40);**

**39) WAQTD all the details who is working as salesman for did20 or 30**

**🡺select \* from employee\_info where designation='salesman' and (did=40 or did=30);**

**40) WAQTD all employee whose working in deptno=20 only if their salary >=10,000 and sa<=40000 including**

**🡺select \* from employee\_info where did=20 and (salary>=10000 and salary<=40000);**

**+----+-----------+------------------+--------------------+----------+------+------------+------------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+-----------+------------------+--------------------+----------+------+------------+------------+--------+----------+------+**

**| 2 | shweta | shweta@gmail.com | software developer | 7218099 | 21 | 1997-08-14 | 2019-07-25 | 30000 | o+ve | 20 |**

**| 7 | Aishwarya | aishu@gmail.com | Analyst | 97065488 | 22 | 1997-09-21 | 2016-01-05 | 30000 | A+ve | 20 |**

**| 11 | pravin | pravin@gmail.com | salesman | 97888889 | 20 | 1999-09-14 | 2013-03-09 | 20000 | b-ve | 20 |**

**+----+-----------+------------------+--------------------+----------+------+------------+------------+--------+----------+------**

**31)WAQTD ALL the records who is working as software developer and dob is 1994**

**🡺select \* from employee\_info where designation='software developer' and (dob>='1994-01-01' and dob<='1994-12-31');**

**32)WAQTD employee details did=10,or 20 or30**

**🡺> select \* from employee\_info where did=10 or did=20 or did=30;**

**++++++++++++++IN OPERATORS+++++++++++++++++++++++++**

**🡺 select \* from employee\_info where did in(10,20,30);**

**33)WQATD ALL EMP DETAILS job is testee,hr,or analyst**

**🡺 select \* from employee\_info where designation in('tester','hr','analyst');**

**+----+-----------+---------------------+-------------+-----------+------+------------+------------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+-----------+---------------------+-------------+-----------+------+------------+------------+--------+----------+------+**

**| 3 | pratik | pratik@gmail.com | HR | 72180899 | 22 | 1997-08-02 | 2019-08-08 | 35000 | A+ve | 30 |**

**| 6 | mansi | mansi@gmail.com | tester | 97098647 | 25 | 1993-04-04 | 2018-02-09 | 30000 | B+ve | 10 |**

**| 7 | Aishwarya | aishu@gmail.com | Analyst | 97065488 | 22 | 1997-09-21 | 2016-01-05 | 30000 | A+ve | 20 |**

**| 9 | sanjivani | sanju@gmail.com | HR | 95613617 | 25 | 1994-06-06 | 2015-07-18 | 90000 | O+ve | 40 |**

**| 12 | omprakash | omprakash@gmail.com | tester | 77988889 | 29 | 1991-11-19 | 2011-11-29 | 23000 | A-ve | 30 |**

**| 13 | pranita | pranita@gmail.com | analyst | 977988889 | 24 | 1996-10-11 | 2010-10-19 | 44000 | o-ve | 40 |**

**| 15 | shital | shital@gmail.com | HR | 90088889 | 27 | 1993-01-25 | 2010-11-09 | 55000 | o-ve | 20 |**

**+----+-----------+---------------------+-------------+-----------+------+------------+------------+--------+----------+------+**

**34)WAQTD all details designation is clerk and did are 10,20,30,40,50,60**

**🡺select \* from employee\_info where designation='clerk' and did in(10,20,30,40,50,60);**

**+----+--------+------------------+-------------+----------+------+------------+------------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+--------+------------------+-------------+----------+------+------------+------------+--------+----------+------+**

**| 4 | sagar | sagar@gmail.com | clerk | 70876499 | 26 | 1994-08-02 | 2015-06-08 | 24000 | B-ve | 40 |**

**| 10 | satish | satish@gmail.com | clerk | 87888889 | 30 | 1990-11-04 | 2001-05-09 | 40000 | b+ve | 10 |**

**+----+--------+------------------+-------------+----------+------+------------+------------+--------+----------+------+++++++++++++++++++++NOT IN+++++++++++++++++++**

**35)WAQTD all details designation is clerk and did are not in 20,30,40,50,60**

**🡺 select \* from employee\_info where designation='clerk' and did NOT in (30,40,50,60);**

**36)WAQTD details of employee WHO IS working in dept 20,40,60 excluding salesman or analyst**

**🡺 select \* from employee\_info where did in (20,40,60) and designation not in('salesman','analyst');**

**++++++++++++++++++++++++++++ BETWEEN +++++++++++++++++++++++=**

**37) WAQTD salary between 10000 to 50000**

**🡺 select \* from employee\_info where salary BETWEEN 10000 and 50000;**

**+----+-----------+---------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+-----------+---------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**| 1 | sukanya | sukanya@gmail.com | software developer | 855482 | 21 | 1997-04-18 | 2019-07-25 | 30000 | o+ve | 10 |**

**| 2 | shweta | shweta@gmail.com | software developer | 7218099 | 21 | 1997-08-14 | 2019-07-25 | 30000 | o+ve | 20 |**

**| 3 | pratik | pratik@gmail.com | HR | 72180899 | 22 | 1997-08-02 | 2019-08-08 | 35000 | A+ve | 30 |**

**| 4 | sagar | sagar@gmail.com | clerk | 70876499 | 26 | 1994-08-02 | 2015-06-08 | 24000 | B-ve | 40 |**

**| 5 | sushant | sushant@gmail.com | salesman | 7098654 | 20 | 1998-07-07 | 2017-05-09 | 27000 | B+ve | 40 |**

**| 6 | mansi | mansi@gmail.com | tester | 97098647 | 25 | 1993-04-04 | 2018-02-09 | 30000 | B+ve | 10 |**

**| 7 | Aishwarya | aishu@gmail.com | Analyst | 97065488 | 22 | 1997-09-21 | 2016-01-05 | 30000 | A+ve | 20 |**

**| 10 | satish | satish@gmail.com | clerk | 87888889 | 30 | 1990-11-04 | 2001-05-09 | 40000 | b+ve | 10 |**

**| 11 | pravin | pravin@gmail.com | salesman | 97888889 | 20 | 1999-09-14 | 2013-03-09 | 20000 | b-ve | 20 |**

**| 12 | omprakash | omprakash@gmail.com | tester | 77988889 | 29 | 1991-11-19 | 2011-11-29 | 23000 | A-ve | 30 |**

**| 13 | pranita | pranita@gmail.com | analyst | 977988889 | 24 | 1996-10-11 | 2010-10-19 | 44000 | o-ve | 40 |**

**| 14 | simran | simran@gmail.com | software developer | 987988889 | 25 | 1996-08-13 | 2013-10-19 | 45000 | A-ve | 10 |**

**+----+-----------+---------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**39)WAQTD all details of employee who hired I n 2017**

**🡺 select \* from employee\_info where Doj between '2017-01-01' and '2017-12-31';**

**+----+---------+-------------------+-------------+----------+------+------------+------------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+---------+-------------------+-------------+----------+------+------------+------------+--------+----------+------+**

**| 5 | sushant | sushant@gmail.com | salesman | 7098654 | 20 | 1998-07-07 | 2017-05-09 | 27000 | B+ve | 40 |**

**+----+---------+-------------------+-------------+----------+------+------------+------------+--------+----------+------+**

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

**40) WAQTD all details of employee who not hired I n 2017**

**🡺 select \* from employee\_info where Doj not between '2017-01-01' and '2017-12-31';**

**41) WAQTD Record of employee name,salary,did of employee who is working in dept 10 or 20 excluding employee whose sal>=15000 and sal<=50000**

**🡺 select name,salary,did from employee\_info where Did in(10,20) and salary not between 15000 and 50000;**

**+--------+--------+------+**

**| name | salary | did |**

**+--------+--------+------+**

**| shital | 55000 | 20 |**

**+--------+--------+------+**

**+++++++++++++++++++++++ IS OPERATOR++++++++++++++++++++++**

**41)WAQTD where mobileno is null**

**🡺 select \* from employee\_info where mobileno is null;**

**+----+------+---------+-------------+----------+------+------+------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+------+---------+-------------+----------+------+------+------+--------+----------+------+**

**| 16 | abc | NULL | NULL | NULL | 44 | NULL | NULL | NULL | NULL | NULL |**

**+----+------+---------+-------------+----------+------+------+------+--------+----------+------+**

**42)WAQTD name,annual salary whose designation is null**

**🡺 select name,salary+salary\*12 as annualsalary from employee\_info where designation is null;**

**+------+--------------+**

**| name | annualsalary |**

**+------+--------------+**

**| abc | NULL |**

**+------+--------------+**

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

**43) WAQTD name,annual salary whose designation is not null**

**🡺 select name,salary+salary\*12 as annualsalary from employee\_info where designation is not null;**

**+-----------+--------------+**

**| name | annualsalary |**

**+-----------+--------------+**

**| sukanya | 390000 |**

**| shweta | 390000 |**

**| pratik | 455000 |**

**| sagar | 312000 |**

**| sushant | 351000 |**

**| mansi | 390000 |**

**| Aishwarya | 390000 |**

**| rohini | 910000 |**

**| sanjivani | 1170000 |**

**| satish | 520000 |**

**| pravin | 260000 |**

**| omprakash | 299000 |**

**| pranita | 572000 |**

**| simran | 585000 |**

**| shital | 715000 |**

**+-----------+--------------+**

**44)WAQTD all the details of employee whose name start with s**

**🡺 select \* from employee\_info where name like 's%';**

**+----+-----------+-------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+-----------+-------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**| 1 | sukanya | sukanya@gmail.com | software developer | 855482 | 21 | 1997-04-18 | 2019-07-25 | 30000 | o+ve | 10 |**

**| 2 | shweta | shweta@gmail.com | software developer | 7218099 | 21 | 1997-08-14 | 2019-07-25 | 30000 | o+ve | 20 |**

**| 4 | sagar | sagar@gmail.com | clerk | 70876499 | 26 | 1994-08-02 | 2015-06-08 | 24000 | B-ve | 40 |**

**| 5 | sushant | sushant@gmail.com | salesman | 7098654 | 20 | 1998-07-07 | 2017-05-09 | 27000 | B+ve | 40 |**

**| 9 | sanjivani | sanju@gmail.com | HR | 95613617 | 25 | 1994-06-06 | 2015-07-18 | 90000 | O+ve | 40 |**

**| 10 | satish | satish@gmail.com | clerk | 87888889 | 30 | 1990-11-04 | 2001-05-09 | 40000 | b+ve | 10 |**

**| 14 | simran | simran@gmail.com | software developer | 987988889 | 25 | 1996-08-13 | 2013-10-19 | 45000 | A-ve | 10 |**

**| 15 | shital | shital@gmail.com | HR | 90088889 | 27 | 1993-01-25 | 2010-11-09 | 55000 | o-ve | 20 |**

**+----+-----------+-------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**8 rows in set (0.00 sec)**

**43)WAQTD all details of whose name conatins only five character**

**🡺 select \* from employee\_info where name like '\_\_\_\_\_';**

**+----+-------+-----------------+-------------+----------+------+------------+------------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+-------+-----------------+-------------+----------+------+------------+------------+--------+----------+------+**

**| 4 | sagar | sagar@gmail.com | clerk | 70876499 | 26 | 1994-08-02 | 2015-06-08 | 24000 | B-ve | 40 |**

**| 6 | mansi | mansi@gmail.com | tester | 97098647 | 25 | 1993-04-04 | 2018-02-09 | 30000 | B+ve | 10 |**

**+----+-------+-----------------+-------------+----------+------+------------+------------+--------+----------+------+++++++++++++++++Like operatporsall++++++++**

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

**45)WAQTD name,salary,dob,doj whose name start with s and end with r**

**🡺 select name,dob,Doj,salary from employee\_info where name like 's%r';**

**+-------+------------+------------+--------+**

**| name | dob | Doj | salary |**

**+-------+------------+------------+--------+**

**| sagar | 1994-08-02 | 2015-06-08 | 24000 |**

**+-------+------------+------------+--------+**

**46)WAQTD all records of emp whose second character is u**

**🡺 select \* from employee\_info where name like '\_u%';**

**+----+---------+-------------------+--------------------+----------+------+------------+------------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+---------+-------------------+--------------------+----------+------+------------+------------+--------+----------+------+**

**| 1 | sukanya | sukanya@gmail.com | software developer | 855482 | 21 | 1997-04-18 | 2019-07-25 | 30000 | o+ve | 10 |**

**| 5 | sushant | sushant@gmail.com | salesman | 7098654 | 20 | 1998-07-07 | 2017-05-09 | 27000 | B+ve | 40 |**

**+----+---------+-------------------+--------------------+----------+------+------------+------------+--------+----------+------+**

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

**47) WAQTD all info of emp where designation hav at least 2 ee**

**🡺 select \* from employee\_info where designation like '%e%e%';**

**+----+-----------+---------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+-----------+---------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**| 1 | sukanya | sukanya@gmail.com | software developer | 855482 | 21 | 1997-04-18 | 2019-07-25 | 30000 | o+ve | 10 |**

**| 2 | shweta | shweta@gmail.com | software developer | 7218099 | 21 | 1997-08-14 | 2019-07-25 | 30000 | o+ve | 20 |**

**| 6 | mansi | mansi@gmail.com | tester | 97098647 | 25 | 1993-04-04 | 2018-02-09 | 30000 | B+ve | 10 |**

**| 8 | rohini | rohini@gmail.com | software developer | 72180688 | 19 | 2000-07-12 | 2019-10-25 | 70000 | A-ve | 30 |**

**| 12 | omprakash | omprakash@gmail.com | tester | 77988889 | 29 | 1991-11-19 | 2011-11-29 | 23000 | A-ve | 30 |**

**| 14 | simran | simran@gmail.com | software developer | 987988889 | 25 | 1996-08-13 | 2013-10-19 | 45000 | A-ve | 10 |**

**+----+-----------+---------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**48)WAQTD all string of length of 5 that start with S AND second last a**

**🡺 select \* from employee\_info where name like 's\_\_a\_';**

**+----+-------+-----------------+-------------+----------+------+------------+------------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+-------+-----------------+-------------+----------+------+------------+------------+--------+----------+------+**

**| 4 | sagar | sagar@gmail.com | clerk | 70876499 | 26 | 1994-08-02 | 2015-06-08 | 24000 | B-ve | 40 |**

**+----+-------+-----------------+-------------+----------+------+------------+------------+--------+----------+------+**

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

**50) WAQTD all details of empl ifname of emp start with R or Z**

**🡺 select \* from employee\_info where name like 'R%' or name like 'z%';**

**+----+--------+------------------+--------------------+----------+------+------------+------------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+--------+------------------+--------------------+----------+------+------------+------------+--------+----------+------+**

**| 8 | rohini | rohini@gmail.com | software developer | 72180688 | 19 | 2000-07-12 | 2019-10-25 | 70000 | A-ve | 30 |**

**+----+--------+------------------+--------------------+----------+------+------------+------------+--------+----------+------+**

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

**51)WAQTD all the records of employee whose in the name 3rd character K and 6TH character should be Y**

**🡺**

**mysql> select \* from employee\_info where name like '\_\_k\_\_y%';**

**+----+---------+-------------------+--------------------+----------+------+------------+------------+--------+----------+------+**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+---------+-------------------+--------------------+----------+------+------------+------------+--------+----------+------+**

**| 1 | sukanya | sukanya@gmail.com | software developer | 855482 | 21 | 1997-04-18 | 2019-07-25 | 30000 | o+ve | 10 |**

**+----+---------+-------------------+--------------------+----------+------+------------+------------+--------+----------+------+**

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

**52)WAQTD all records of emp excluding whose name start with ‘A’**

**🡺 select \* from employee\_info where name not like 'a%';**

**+++++++++++++++++++++++++++FUNCTIONS ++++++++++++++++++++++++++++++++**

**53)WAQTD average salary employee**

**🡺 select avg(salary) from employee\_info;**

**+-------------+**

**| avg(salary) |**

**+-------------+**

**| 39533.3333 |**

**+-------------+**

**53)WAQTD to perform min,max,sum,count of salary**

**🡺 mysql> select sum(salary) from employee\_info;**

**+-------------+**

**| sum(salary) |**

**+-------------+**

**| 593000 |**

**+-------------+**

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

**mysql> select min(salary) from employee\_info;**

**+-------------+**

**| min(salary) |**

**+-------------+**

**| 20000 |**

**+-------------+**

**1 row in set (0.09 sec)**

**mysql> select max(salary) from employee\_info;**

**+-------------+**

**| max(salary) |**

**+-------------+**

**| 90000 |**

**+-------------+**

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

**mysql> select count(salary) from employee\_info;**

**+---------------+**

**| count(salary) |**

**+---------------+**

**| 15 |**

**+---------------+**

**55)WAQTD use all function in one query**

**🡺**

**mysql> select count(salary) as count,avg(salary) as average, sum(salary) as sumsalary, min(salary) as minimumsal,max(salary) as maximumsal from employee\_info;**

**+-------+------------+-----------+------------+------------+**

**| count | average | sumsalary | minimumsal | maximumsal |**

**+-------+------------+-----------+------------+------------+**

**| 15 | 39533.3333 | 593000 | 20000 | 90000 |**

**+-------+------------+-----------+------------+------------+**

**+++++++++++++++FUNCTIONS MULTIROW FUN+++++++++++++**

**1)WAQTD NO OF EMP HIRED IN AFTER 2016**

**==>mysql> select COUNT(name) from employee\_info where doj>'2016-12-31';**

**+-------------+**

**| COUNT(name) |**

**+-------------+**

**| 6 |**

**+-------------+**

**1 row in set (0.02 sec)**

**2)WAQTD AVERAGE SALARY AND THE HIGHEST SALARY OF DEPTT 20,30,40 AND 60**

**=>mysql> select avg(salary) averagesal ,max(salary) as maximumsal from employee\_info where did in(20,30,40,60);**

**+------------+------------+**

**| averagesal | maximumsal |**

**+------------+------------+**

**| 40727.2727 | 90000 |**

**+------------+------------+**

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

**3)WAQTD date of first and last hired employee**

**==>mysql> select min(doj) as firsthired,max(doj) as lasthired from employee\_info;**

**+------------+------------++++**

**| firsthired | lasthired |**

**+------------+-------- ---------+**

**| 2001-05-09 | 2019-10-25 |**

**+------------+------------+**

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

**++++++++++++++++++++++++++++SCALAR FUNCTION+++++++++++++++++++++++++**

**1)UPPER ,LOWER**

**🡺 select lower(name) from employee\_info;**

**🡺 select UPPER(name) from employee\_info;**

**---------------------------------------------------CHARACTER MANIPULATION-------------------------------------**

**2) WAQTD TO CALCULATE LENGTH**

**🡺 select length(name) from employee\_info;**

**3)WAQTD TO CALCULATE CONCAT**

**🡺 select CONCAT(name,did) from employee\_info;**

**4)WAQTD TO MERGE NAME AND SALARY**

**🡺select CoNCAT(name,SALARY) from employee\_info;**

**5)WAQTD TO REVERSE THE NAME**

**🡺 select REVERSE(name) from employee\_info;**

**6)WAQTD USE OF SUBSTR**

**🡺+------------------+**

**| SUBSTR(name,3,4) |**

**+------------------+**

**| kany |**

**| weta |**

**| atik |**

**| gar |**

**| shan |**

**| nsi |**

**| shwa |**

**| hini |**

**| njiv |**

**| tish |**

**| avin |**

**| prak |**

**| anit |**

**| mran |**

**| ital |**

**| c |**

**+------------------+**

**16 rows in set (0.00 sec)**

**mysql> select SUBSTR(name,3,2) from employee\_info;**

**+------------------+**

**| SUBSTR(name,3,2) |**

**+------------------+**

**| ka |**

**| we |**

**| at |**

**| ga |**

**| sh |**

**| ns |**

**| sh |**

**| hi |**

**| nj |**

**| ti |**

**| av |**

**| pr |**

**| an |**

**| mr |**

**| it |**

**| c |**

**+------------------+**

**7)WAQTD ONLY THREE CHARACTERS**

**🡺 select SUBSTR(name,1,3) from employee\_info;**

**8) WAQTD ALL DETAILS OF EMPLOYEE WHOSE NAME BEGIN WITH CONSONANT**

**🡺select \* FROM employee\_info where name not like 'a%'and name not like 'e%' and name not like 'i%' and name not like 'o%' and name not like 'u%';**

**OR USING SUBSTR**

**🡺 select \* FROM employee\_info where substr(name,1,1) NOT IN ('A','E','I','O','U');**

**| id | name | emailId | designation | mobileno | age | dob | DOJ | salary | bloodgrp | Did |**

**+----+-----------+-------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**| 1 | sukanya | sukanya@gmail.com | software developer | 855482 | 21 | 1997-04-18 | 2019-07-25 | 30000 | o+ve | 10 |**

**| 2 | shweta | shweta@gmail.com | software developer | 7218099 | 21 | 1997-08-14 | 2019-07-25 | 30000 | o+ve | 20 |**

**| 3 | pratik | pratik@gmail.com | HR | 72180899 | 22 | 1997-08-02 | 2019-08-08 | 35000 | A+ve | 30 |**

**| 4 | sagar | sagar@gmail.com | clerk | 70876499 | 26 | 1994-08-02 | 2015-06-08 | 24000 | B-ve | 40 |**

**| 5 | sushant | sushant@gmail.com | salesman | 7098654 | 20 | 1998-07-07 | 2017-05-09 | 27000 | B+ve | 40 |**

**| 6 | mansi | mansi@gmail.com | tester | 97098647 | 25 | 1993-04-04 | 2018-02-09 | 30000 | B+ve | 10 |**

**| 8 | rohini | rohini@gmail.com | software developer | 72180688 | 19 | 2000-07-12 | 2019-10-25 | 70000 | A-ve | 30 |**

**| 9 | sanjivani | sanju@gmail.com | HR | 95613617 | 25 | 1994-06-06 | 2015-07-18 | 90000 | O+ve | 40 |**

**| 10 | satish | satish@gmail.com | clerk | 87888889 | 30 | 1990-11-04 | 2001-05-09 | 40000 | b+ve | 10 |**

**| 11 | pravin | pravin@gmail.com | salesman | 97888889 | 20 | 1999-09-14 | 2013-03-09 | 20000 | b-ve | 20 |**

**| 13 | pranita | pranita@gmail.com | analyst | 977988889 | 24 | 1996-10-11 | 2010-10-19 | 44000 | o-ve | 40 |**

**| 14 | simran | simran@gmail.com | software developer | 987988889 | 25 | 1996-08-13 | 2013-10-19 | 45000 | A-ve | 10 |**

**| 15 | shital | shital@gmail.com | HR | 90088889 | 27 | 1993-01-25 | 2010-11-09 | 55000 | o-ve | 20 |**

**+----+-----------+-------------------+--------------------+-----------+------+------------+------------+--------+----------+------+**

**10)WAQTD TO SERACH THE POSITION OF ‘A’ IN THE NAME COLUMN**

**🡺mysql> select INSTR(NAME,'A') FROM EMPLOYEE\_INFO;**

**+-----------------+**

**| INSTR(NAME,'A') |**

**+-----------------+**

**| 4 |**

**| 6 |**

**| 3 |**

**| 2 |**

**| 5 |**

**| 2 |**

**| 1 |**

**| 0 |**

**| 2 |**

**| 2 |**

**| 3 |**

**| 5 |**

**| 3 |**

**| 5 |**

**| 5 |**

**| 1 |**

**+-----------------+**

**11)WAQTD TO REPLACE WHERE A IS PRESENT IN THE NAME WITH Z**

**🡺select replace (name,'a','z') from employee\_info;**

**12)WAQTD NO OF EMPLOYEE WHO IS WORKING IN DEPT 20 AND SALARY =30000**

**🡺mysql> select count(\*) as noOfemp from employee\_info where did=20 and salary=30000;**

**13)WAQTD highest salary of emp in each dept**

**🡺mysql> select max(salary) as highest\_sal from employee\_info group by did;**

**+-------------+**

**| highest\_sal |**

**+-------------+**

**| NULL |**

**| 45000 |**

**| 55000 |**

**| 70000 |**

**| 90000 |**

**+-------------+**

**14) WAQTD NO OF SOFTWARE DEVELOPER WORKING IN EACH DEPT**

**🡺mysql> select COUNT(DESIGNATION) AS SOFTDEV ,DID from employee\_info WHERE DESIGNATION='SOFTWARE DEVELOPER' group by did;**

**+---------+----------+**

**| SOFTDEV | DID|**

**+---------+-----------+**

**| 2 | 10 |**

**| 1 | 20 |**

**| 1 | 30 |**

**+---------+-----------+**

**15)WAQTD no of employee hired on each date**

**🡺select count(\*),doj from employee\_info group by doj;**

**16)WAQTD MIN SALARY FOR EACH DESIGNATION**

**🡺mysql> select MIN(SALARY),designation from employee\_info group by designation;**

**+-------------+----------------------+**

**| MIN(SALARY) | designation |**

**+-------------+------------------------+**

**| NULL | NULL |**

**| 30000 | Analyst |**

**| 24000 | clerk |**

**| 35000 | HR |**

**| 20000 | salesman |**

**| 30000 | software developer |**

**| 23000 | tester |**

**+-------------+------------------------------+**

**+++++++++++++++++++++++++HAVING CLAUSE++++++++++++++++++++++++++++++++++++**

**1)WAQTD deptno which has atleast four working employee**

**🡺select count(name) ,did from employee\_info group by did having count(name)>=4;**

**+-------------+------+**

**| count(name) | did |**

**+-------------+------+**

**| 4 | 10 |**

**| 4 | 20 |**

**| 4 | 40 |**

**+-------------+------+**

**🡺mysql> select name ,did from employee\_info group by did having count(name)>=4;**

**+---------+------+**

**| name | did |**

**+---------+------+**

**| sukanya | 10 |**

**| shweta | 20 |**

**| sagar | 40 |**

**+---------+------+**

**2)WAQTD deptno which has total salary>20000**

**🡺mysql> select sum(salary) ,did from employee\_info group by did having sum(salary)>20000;**

**+-------------+------+**

**| sum(salary) | did |**

**+-------------+------+**

**| 145000 | 10 |**

**| 135000 | 20 |**

**| 128000 | 30 |**

**| 185000 | 40 |**

**+-------------+------+**

**3)WAQTD DEPTNO AND AVERAGE SALARY OF ALL THE DEPARTMENTS WHOSE AVERAGE SALARY IS>20000 EXCLUDING THE EMPLOYEE WHOSE NAME BEGINS WITH ‘S’**

**🡺mysql> SELECT did,avg(salary) from employee\_info where name not like 's%' group by did having avg(salary)>20000;**

**OR**

**mysql> SELECT did,avg(salary),name from employee\_info where name not like 's%' group by did,name having avg(salary)>20000;**

**+------+-------------+-----------+**

**| did | avg(salary) | name |**

**+------+-------------+-----------+**

**| 10 | 30000.0000 | mansi |**

**| 20 | 30000.0000 | Aishwarya |**

**| 30 | 23000.0000 | omprakash |**

**| 30 | 35000.0000 | pratik |**

**| 30 | 70000.0000 | rohini |**

**| 40 | 44000.0000 | pranita |**

**+------+-------------+-----------+**

**6 rows in set (0.08 sec)**

**OR**

**mysql> SELECT did,avg(salary),name from employee\_info group by did,name having avg(salary)>20000 and name not like 's%';**

**4) WAQTD all details salary should be arrange in desc order**

**🡺 select \* from employee\_info order by salary desc;**

**++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++32**

**5)WAQTD NAME,DESIGNATION, DOJ OF ALL EMPL WHO ARE WORKING IN EITHER ONE OF THE DEPT 10,20,50,60 SORT THE RECORDS BY DESCENDING ORDER OF THEIR SALARY**

**🡺select name,designation,doj from employee\_info where did in(10,20,50,60) order by salary desc;**

**6)WAQTD DID ALONG WITH NO OF EMP IN IT**

**🡺 SELECT Did,count(\*) from employee\_info group by did;**

**7)WAQTD all the details of emp whose designation is software dev and tester**

**++++++++++++++++++++++SUB QUERY+++++++++++++++++++++++++++++**

**1)WAQTD NAME OF EMP WHO IS WORKING FOR RESEARCH DEPT**

**🡺SELECT name from employee\_info where did=(select did from dept\_info where dname='research')**

**2)WAQTD NAME OF EMPLOYEE WHO IS WORKING IN LOCATION WHICGH HAS ATLEAST ONE ‘A’ CAHRACTER IN ITS NAME**

**🡺select name from employee\_info where did in(select did from dept\_info where location like '%a%')**

**3)WAQTD OBTAIN 2ND MAXIMUM SALARY FROM THE EMPLOYEE\_INFO**

**🡺SELECT max(salary) from employee\_info where salary<(select max(salary) from employee\_info)**

**🡺SELECT max(salary) from employee\_info where salary not in(select max(salary) from employee\_info)**

**4)WAQTD third maximum salary**

**🡺select max(salary) from employee\_info where salary <(select max(salary) from employee\_info where salary not in (select max(salary) from employee\_info) )**

**++++++++++++++++++++++++++++++ CROSS JOINS+++++++++++++++++++++++++++++++++++++**

**1WAQTD TO DISPLAY ALL THE RECORDS USING CARTESIAN JOIN**

**🡺select d.\* , e.\* from employee\_info e cross join dept\_info d**

**+++++++++++++++++++++++++++++++++++++Inner join++++++++++++++++++++++++++++**

**1)**

**🡺mysql> select e.did,e.name,d.location from employee\_info e, dept\_info d where d.did=e.did;**

**//above oracle syntax**

**🡺 mysql> select e.did,e.name,d.location from employee\_info e inner join dept\_info d on d.did=e.did;**

**+++++++++++++++++++++++++++++++++++++Left Outer join++++++++++++++++++++++++++++**

**2)**

**🡺 mysql> select e.did,e.name,d.location from employee\_info e left outer join dept\_info d on d.did=e.did;**

**+------+-----------+----------+**

**| did | name | location |**

**+------+-----------+----------+**

**| 20 | shweta | pune |**

**| 20 | Aishwarya | pune |**

**| 20 | pravin | pune |**

**| 20 | shital | pune |**

**| 30 | pratik | delhi |**

**| 30 | rohini | delhi |**

**| 30 | omprakash | delhi |**

**| 40 | sagar | chennai |**

**| 40 | sushant | chennai |**

**| 40 | sanjivani | chennai |**

**| 40 | pranita | chennai |**

**| 10 | sukanya | NULL |**

**| 10 | mansi | NULL |**

**| 10 | satish | NULL |**

**| 10 | simran | NULL |**

**| NULL | abc | NULL |**

**+------+-----------+----------+**

**+++++++++++++++++++++++++++++++++++Right outer join++++++++++++++++++++**

**1)**

**🡺mysql> select e.did,e.name,d.location from employee\_info e right outer join dept\_info d on d.did=e.did;**

**+------+-----------+----------+**

**| did | name | location |**

**+------+-----------+----------+**

**| 20 | shweta | pune |**

**| 30 | pratik | delhi |**

**| 40 | sagar | chennai |**

**| 40 | sushant | chennai |**

**| 20 | Aishwarya | pune |**

**| 30 | rohini | delhi |**

**| 40 | sanjivani | chennai |**

**| 20 | pravin | pune |**

**| 30 | omprakash | delhi |**

**| 40 | pranita | chennai |**

**| 20 | shital | pune |**

**| NULL | NULL | mumbai |**

**| NULL | NULL | goa |**

**+------+-----------+----------+**

**+++++++++++++++++++++++++++++Views+++++++++++++++++++**

1. **Create view of did and name**

**🡺mysql> create view studdata as select did,name from employee\_info;**

**Query OK, 0 rows affected (0.19 sec)**

**mysql> select \* from studdata;**

**+------+-----------+**

**| did | name |**

**+------+-----------+**

**| 10 | sukanya |**

**| 20 | shweta |**

**| 30 | pratik |**

**| 40 | sagar |**

**| 40 | sushant |**

**| 10 | mansi |**

**| 20 | Aishwarya |**

**| 30 | rohini |**

**| 40 | sanjivani |**

**| 10 | satish |**

**| 20 | pravin |**

**| 30 | omprakash |**

**| 40 | pranita |**

**| 10 | simran |**

**| 20 | shital |**

**| NULL | abc |**

**+------+-----------+**

**16 rows in set (0.05 sec)**