1)DDL:- Data Defination language.

1.Create

2.insert

3.Alert

4.Trunacate

5.Rename

1.create:-

Syntax:-

SQL> create table college1(name varchar(30),l\_name varchar(30),age int,phone\_number int);

Table created.

2.Drop

Syntax:-

SQL> drop table college2;

Table dropped.

SQL> select \* from college2;

select \* from college2

\*

ERROR at line 1:

ORA-00942: table or view does not exist

SQL>

2.Insert:-

Syntax:-

SQL> insert into college1(name,l\_name,age,phone\_number)values('hina','sayyed','28','9834377872');

1 row created.

SQL> insert into college1(name,l\_name,age,phone\_number)values('sara','khan','22','9834397872');

1 row created.

SQL> insert into college1(name,l\_name,age,phone\_number)values('sam','bhgt','23','8734397872');

1 row created.

SQL> desc college1;

Name Null? Type

----------------------------------------- -------- ----------------------------

NAME VARCHAR2(30)

L\_NAME VARCHAR2(30)

AGE NUMBER(38)

PHONE\_NUMBER NUMBER(38)

SQL> select \* from college1;

NAME L\_NAME AGE

------------------------------ ------------------------------ ----------

PHONE\_NUMBER

------------

sana pathan 29

9834377202

hina sayyed 28

9834377872

sara khan 22

9834397872

NAME L\_NAME AGE

------------------------------ ------------------------------ ----------

PHONE\_NUMBER

------------

sam bhgt 23

8734397872

3.Alert

Syntax:-

SQL> alter table college1 add city varchar(20);

Table altered.

SQL> select \* from college1;

NAME L\_NAME AGE

------------------------------ ------------------------------ ----------

PHONE\_NUMBER CITY

------------ --------------------

sana pathan 29

9834377202

hina sayyed 28

9834377872

sara khan 22

9834397872

NAME L\_NAME AGE

------------------------------ ------------------------------ ----------

PHONE\_NUMBER CITY

------------ --------------------

sam bhgt 23

8734397872

SQL> update college1 set city='pune' where phonenumber=9834377002;

update college1 set city='pune' where phonenumber=9834377002

\*

ERROR at line 1:

ORA-00904: "PHONENUMBER": invalid identifier

SQL> update college1 set city='pune' where phone\_number=9834377002;

0 rows updated.

SQL> select \* from college1;

NAME L\_NAME AGE

------------------------------ ------------------------------ ----------

PHONE\_NUMBER CITY

------------ --------------------

sana pathan 29

9834377202

hina sayyed 28

9834377872

sara khan 22

9834397872

NAME L\_NAME AGE

------------------------------ ------------------------------ ----------

PHONE\_NUMBER CITY

------------ --------------------

sam bhgt 23

8734397872

SQL> update college1 set city='pune' where phone\_number=9834377202;

1 row updated.

SQL> select \* from college1;

NAME L\_NAME AGE

------------------------------ ------------------------------ ----------

PHONE\_NUMBER CITY

------------ --------------------

sana pathan 29

9834377202 pune

hina sayyed 28

9834377872

sara khan 22

9834397872

NAME L\_NAME AGE

------------------------------ ------------------------------ ----------

PHONE\_NUMBER CITY

------------ --------------------

sam bhgt 23

8734397872

4.Trunacate

Syntax:-

SQL> truncate from college1 where phone\_number=9834377202;

1 row deleted.

SQL> select \* from college1;

NAME L\_NAME AGE

------------------------------ ------------------------------ ----------

PHONE\_NUMBER CITY

------------ --------------------

hina sayyed 28

9834377872

sara khan 22

9834397872

sam bhgt 23

8734397872

5.Comment:-

Syntax:-

SQL> /\* select \* from studd; \*/

SQL>

6.Rename

Syntax:-

SQL> insert into college1(name,l\_name,age,phone\_number)values('sana','pathan','29','9834377202');

1 row created.

SQL> rename college1 to college2;

Table renamed.

SQL> select \* from college2;

NAME L\_NAME AGE

------------------------------ ------------------------------ ----------

PHONE\_NUMBER CITY

------------ --------------------

hina sayyed 28

9834377872

sara khan 22

9834397872

sam bhgt 23

8734397872

2)DQL:- Data Query language.

1.SELECT:-

Syntax:-

SQL> select \* from college1;

NAME L\_NAME AGE

------------------------------ ------------------------------ ----------

PHONE\_NUMBER

------------ 9834377202

hina sayyed 28

9834377872

sara khan 22

9834397872

3)DML:- Data manuplication language.

1)Insert

2)Update

3)delete

1)Insert:-

Syntax:-

SQL> create table s(name varchar(20),l\_name varchar(22), city varchar(30));

Table created.

SQL> INSERT INTO S(name,l\_name,city) VALUES('rijj','shaikh','pune');

1 row created.

SQL> select \* from s;

NAME L\_NAME CITY

-------------------- ---------------------- ------------------------------

rijj shaikh pune

SQL> select \*from s;

NAME L\_NAME CITY

-------------------- ---------------------- ------------------------------

rijj shaikh pune

SQL> INSERT INTO S(name,l\_name,city) VALUES('sam','bght','mumbai');

1 row created.

SQL> select \*from s;

NAME L\_NAME CITY

-------------------- ---------------------- ------------------------------

rijj shaikh pune

sam bght mumbai

2)Update:-

Syntax:-

SQL>

SQL> update s set city='baramati' where city='pune';

1 row updated.

SQL> select \*from s;

NAME L\_NAME CITY

-------------------- ---------------------- ------------------------------

rijj shaikh baramati

sam bght Mumbai

3)delete

Syntax:-

SQL> delete from s where name='rijj';

1 row deleted.

SQL> select \*from s;

NAME L\_NAME CITY

-------------------- ---------------------- ------------------------------

sam bght mumbai

4)DCL:- Data Control language.

1)Grant

2)Revoke

1)Grant:-

Synatax:-

SQL> create table emp(EID int,name varchar(22), city varchar(30));

Table created.

SQL> INSERT INTO S(EID,name,city) VALUES('01','aashu','mumbai');

INSERT INTO S(EID,name,city) VALUES('01','aashu','mumbai')

\*

ERROR at line 1:

ORA-00904: "EID": invalid identifier

SQL> INSERT INTO emp(EID,name,city) VALUES('01','aashu','mumbai');

1 row created.

SQL> INSERT INTO emp(EID,name,city) VALUES('02','gauri','mumbai');

1 row created.

SQL> INSERT INTO emp(EID,name,city) VALUES('03','akhi','pune');

1 row created.

SQL> INSERT INTO emp(EID,name,city) VALUES('04','aaru','bmt');

1 row created.

SQL> select \*from emp;

EID NAME CITY

---------- ---------------------- ------------------------------

1 aashu mumbai

2 gauri mumbai

3 akhi pune

4 aaru bmt

SQL> create user aashu indentified by pwd;

create user aashu indentified by pwd

\*

ERROR at line 1:

ORA-00922: missing or invalid option

SQL> create user aashu identified by pwd;

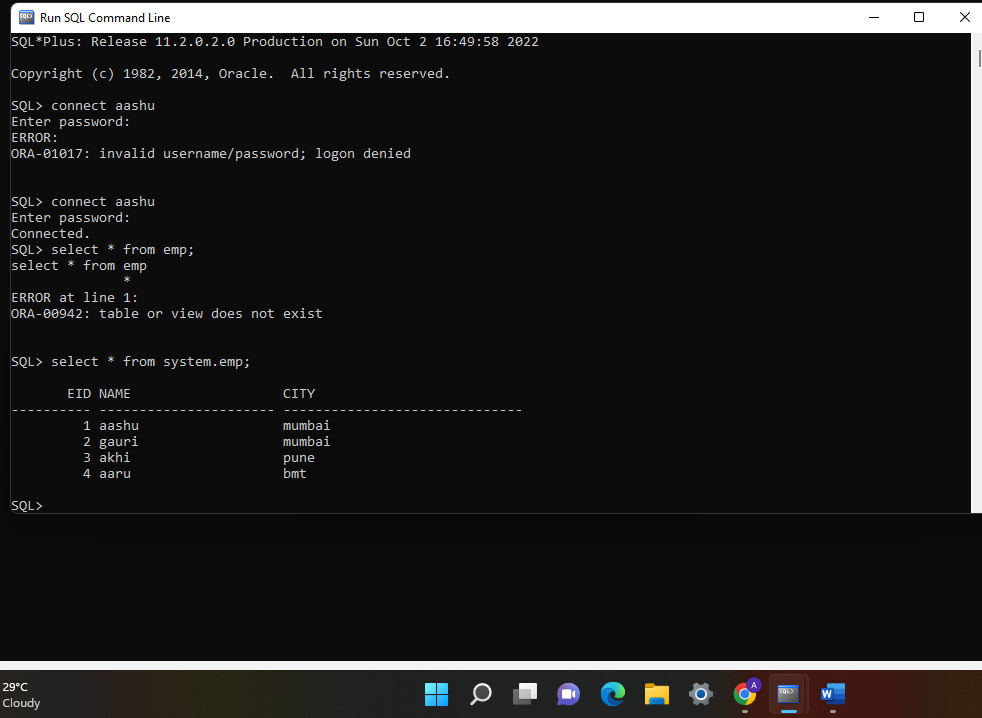
User created.

SQL> grant connect to aashu;

Grant succeeded.

SQL> grant select on emp to aashu;

Grant succeeded.



2)Revoke:-

Syntax:-

SQL> delete from system.emp where EID=01;

1 row deleted.

SQL> select \* from system.emp;

EID NAME CITY

---------- ---------------------- ------------------------------

2 gauri mumbai

3 akhi pune

4 aaru bmt

SQL> revoke delete on system.emp from aashu;

Revoke succeeded.

4)TCL:- Transaction Control language

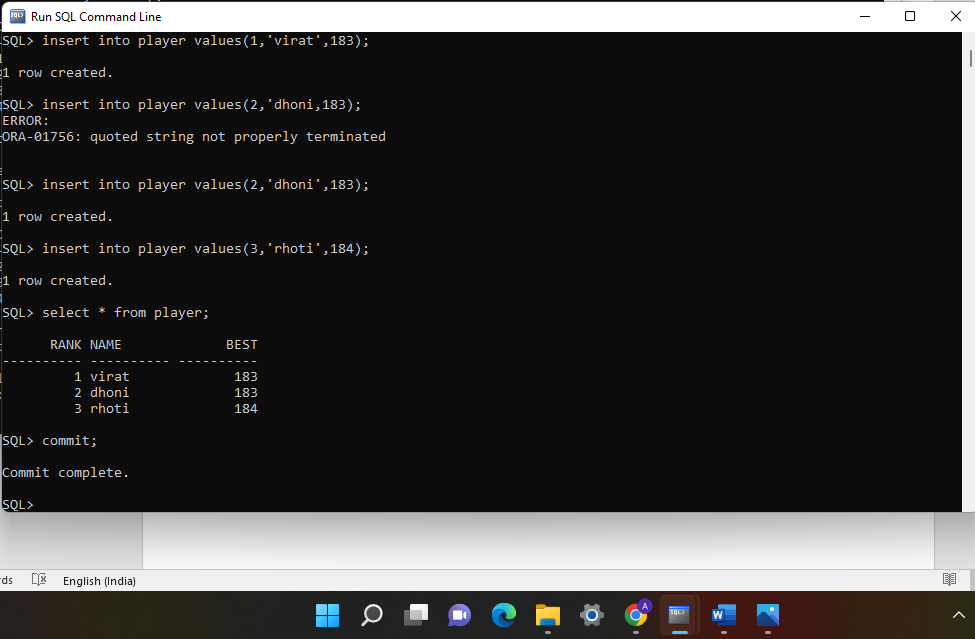
1)COMMENT

2)ROLLBACK

3)SAVEPOINT

1)COMMENT

Syntax:-



2)ROLLBACK

Syntax:-

SQL> connect system

Enter password:

Connected.

SQL> select \* from player;

RANK NAME BEST

---------- ---------- ----------

1 virat 183

2 dhoni 183

3 rhoti 184

SQL> rollback;

Rollback complete.

SQL> select \* from player;

RANK NAME BEST

---------- ---------- ----------

1 virat 183

2 dhoni 183

3 rhoti 184

SQL> insert into values(3,'rohit',154);

insert into values(3,'rohit',154)

\*

ERROR at line 1:

ORA-00903: invalid table name

SQL> insert into player values(3,'rohit',154);

1 row created.

SQL> select \* from player;

RANK NAME BEST

---------- ---------- ----------

1 virat 183

2 dhonsi 183

3 rhoti 184

3 rohit 154

SQL> rollback;

Rollback complete.

SQL> select \* from player;

RANK NAME BEST

---------- ---------- ----------

1 virat 183

2 dhoni 183

3 rhoti 184

3)SAVEPOINT:-

Syatax:-

> connect system

Enter password:

Connected.

SQL> select \* from player;

RANK NAME BEST

---------- ---------- ----------

1 virat 183

2 dhoni 183

3 rhoti 184

SQL> rollback;

Rollback complete.

SQL> select \* from player;

RANK NAME BEST

---------- ---------- ----------

1 virat 183

2 dhoni 183

3 rhoti 184

SQL> insert into values(3,'rohit',154);

insert into values(3,'rohit',154)

\*

ERROR at line 1:

ORA-00903: invalid table name

SQL> insert into player values(3,'rohit',154);

1 row created.

SQL> select \* from player;

RANK NAME BEST

---------- ---------- ----------

1 virat 183

2 dhoni 183

3 rhoti 184

3 rohit 154

SQL> rollback;

Rollback complete.

SQL> select \* from player;

RANK NAME BEST

---------- ---------- ----------

1 virat 183

2 dhoni 183

3 rhoti 184

SQL> savepoint A;

Savepoint created.

SQL> insert into player values(4,'pandya',134);

1 row created.

SQL> insert into player values(5,'sachin',133);

1 row created.

SQL> savepoint B;

Savepoint created.

SQL> insert into player values(53,'sagul',433);

1 row created.

SQL> savepoint C;

Savepoint created.

SQL> select \* from player;

RANK NAME BEST

---------- ---------- ----------

1 virat 183

2 dhoni 183

3 rhoti 184

4 pandya 134

5 sachin 133

53 sagul 433

6 rows selected.

SQL> rollback B;

rollback B

\*

ERROR at line 1:

ORA-02181: invalid option to ROLLBACK WORK

SQL> rollback to B;

Rollback complete.

SQL> select \* from player;

RANK NAME BEST

---------- ---------- ----------

1 virat 183

2 dhoni 183

3 rhoti 184

4 pandya 134

5 sachin 133

SQL> rollback to c;

rollback to c

\*

ERROR at line 1:

ORA-01086: savepoint 'C' never established in this session or is invalid

* **OR:-**

SQL> select \* from student7;

STU\_ID FIRST\_NAME LAST\_NAME

---------- -------------------- --------------------

32 riju shaikh

35 sara khan

36 sam bght

SQL> select \* from student7 where first\_name='sara' OR last\_name='khan';

STU\_ID FIRST\_NAME LAST\_NAME

---------- -------------------- --------------------

35 sara khan

**Delete:-**

SQL> delete from student7;

3 rows deleted.

SQL> select \* from student7;

no rows selected

SQL> desc student7;

Name Null? Type

----------------------------------------- -------- ----------------------------

STU\_ID NUMBER(10)

FIRST\_NAME VARCHAR2(20)

LAST\_NAME VARCHAR2(20)

**DISTINCT:-**

The SELECT DISTINCT statement is used to return only distinct (different) values.

It removing the duplicates value and display the original values.

SELECT DISTINCT Syntax

SELECT DISTINCT *column1*,*column2, ...*  
FROM *table\_name*;

**SQL> select \* from student7;**

**STU\_ID FIRST\_NAME LAST\_NAME**

**---------- -------------------- --------------------**

**32 riju shaikh**

**35 sara khan**

**36 sam bght**

**36 roshni khan**

**SQL> select \* from student8;**

**STU\_ID FIRST\_NAME LAST\_NAME**

**---------- -------------------- --------------------**

**36 sam bght**

**SQL> SELECT DISTINCT last\_name from student8;**

**LAST\_NAME**

**--------------------**

**bght**

**SQL> SELECT DISTINCT last\_name from student7;**

**LAST\_NAME**

**--------------------**

**khan**

**bght**

**shaikh**

* **Count:-**

The Count is used to Count the particular column values.

And count is a in-built function.

**Syntax:-**

**1.SELECT** COUNT(column\_name) **FROM** table\_name;

**2.SELECT** COUNT(column\_name) **FROM** table\_name **WHERE** [condition];

**SQL> select \* from student8;**

**STU\_ID FIRST\_NAME LAST\_NAME**

**---------- -------------------- --------------------**

**36 sam bght**

**SQL> select \* from student7;**

**STU\_ID FIRST\_NAME LAST\_NAME**

**---------- -------------------- --------------------**

**32 riju shaikh**

**35 sara khan**

**36 sam bght**

**SQL> SELECT COUNT (last\_name) AS last\_name FROM student7 ;**

**LAST\_NAME**

**----------**

**3**

**SQL> select \* from student7;**

**STU\_ID FIRST\_NAME LAST\_NAME**

**---------- -------------------- --------------------**

**32 riju shaikh**

**35 sara khan**

**36 sam bght**

**36 roshni khan**

**SQL> SELECT DISTINCT last\_name from student7;**

**LAST\_NAME**

**--------------------**

**khan**

**bght**

**shaikh**

**SQL> SELECT COUNT (last\_name) AS last\_name FROM student7 WHERE last\_name = 'khan';**

**LAST\_NAME**

**----------**

**2**

**SQL> SELECT COUNT (last\_name) AS last\_name FROM student7 WHERE last\_name = 'shaikh';**

**LAST\_NAME**

**----------**

**1**

**SQL> SELECT COUNT(DISTINCT first\_name) FROM student7 WHERE first\_name='sam';**

**COUNT(DISTINCTFIRST\_NAME)**

**-------------------------**

**1**

**SQL> SELECT COUNT(DISTINCT last\_name) FROM student7 WHERE last\_name='khan';**

**COUNT(DISTINCTLAST\_NAME)**

**------------------------**

**1**

**SQL> select count(stu\_id) as stu\_id from student7;**

**STU\_ID**

**----------**

**6**

**SQL> select last\_name from student7;**

**LAST\_NAME**

**--------------------**

**shaikh**

**khan**

**bght**

**khan**

**shendkar**

**lavhe**

**6 rows selected.**

**SQL> SELECT COUNT(DISTINCT first\_name) FROM student7 WHERE first\_name='sam';**

**COUNT(DISTINCTFIRST\_NAME)**

**-------------------------**

**1**

* **ROW\_NUM:-**

**Synatx:-**

**SQL> create table person(person\_name varchar(20),product varchar(45),country varchar(25),price float,year int);**

**Table created.**

**SQL> insert into person(person\_name,product,country,price,year)values('riju','computer','USA',2000.0,2018);**

**1 row created.**

**SQL> insert into person(person\_name,product,country,price,year)values('sam','laptop','USA',35000.0,2019);**

**1 row created.**

**SQL> insert into person(person\_name,product,country,price,year)values('nik','tv','USA',15000.0,2020);**

**1 row created.**

**SQL> insert into person(person\_name,product,country,price,year)values('ayesha','Mobile','FRANCE',125000.0,2021);**

**1 row created.**

**SQL> insert into person(person\_name,product,country,price,year)values('donald','laptop','England',3000.0,2022);**

**1 row created.**

**SQL> insert into person(person\_name,product,country,price,year)values('jassu','mobile','india',18000.0,2018);**

**1 row created.**

**SQL> insert into person(person\_name,product,country,price,year)values('mayuri','desktop','desktop',22000.0,2016);**

**1 row created.**

**SQL> insert into person(person\_name,product,country,price,year)values('anail','desktop','England',12000.0,2016);**

**1 row created.**

**SQL> select \* from person;**

**PERSON\_NAME PRODUCT**

**-------------------- ---------------------------------------------**

**COUNTRY PRICE YEAR**

**------------------------- ---------- ----------**

**riju computer**

**USA 2000 2018**

**sam laptop**

**USA 35000 2019**

**nik tv**

**USA 15000 2020**

**PERSON\_NAME PRODUCT**

**-------------------- ---------------------------------------------**

**COUNTRY PRICE YEAR**

**------------------------- ---------- ----------**

**ayesha Mobile**

**FRANCE 125000 2021**

**donald laptop**

**England 3000 2022**

**jassu mobile**

**india 18000 2018**

**PERSON\_NAME PRODUCT**

**-------------------- ---------------------------------------------**

**COUNTRY PRICE YEAR**

**------------------------- ---------- ----------**

**mayuri desktop**

**desktop 22000 2016**

**anail desktop**

**England 12000 2016**

**8 rows selected.**

**SQL> select person\_name,product,price,year,ROW\_NUMBER() OVER(PARTITION BY year ORDER BY price)as row\_number from person;**

**PERSON\_NAME PRODUCT PRICE**

**-------------------- --------------------------------------------- ----------**

**YEAR ROW\_NUMBER**

**---------- ----------**

**anail desktop 12000**

**2016 1**

**mayuri desktop 22000**

**2016 2**

**riju computer 2000**

**2018 1**

**PERSON\_NAME PRODUCT PRICE**

**-------------------- --------------------------------------------- ----------**

**YEAR ROW\_NUMBER**

**---------- ----------**

**jassu mobile 18000**

**2018 2**

**sam laptop 35000**

**2019 1**

**nik tv 15000**

**2020 1**

**PERSON\_NAME PRODUCT PRICE**

**-------------------- --------------------------------------------- ----------**

**YEAR ROW\_NUMBER**

**---------- ----------**

**ayesha Mobile 125000**

**2021 1**

**donald laptop 3000**

**2022 1**

**8 rows selected.**

**SQL> select \* from(select row\_number() over (order by price)as row\_num,person\_name,product,price from person)p where row\_num>3 AND row\_num<=6;**

**ROW\_NUM PERSON\_NAME PRODUCT**

**---------- -------------------- ---------------------------------------------**

**PRICE**

**----------**

**4 nik tv**

**15000**

**5 jassu mobile**

**18000**

**6 mayuri desktop**

**22000**

**Acending Order**

**Syntax:-**

**SQL> select \* from stu\_data;**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**101**

**anuj**

**B.tech 20 88**

**102**

**raman**

**mca 24 98**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**103**

**shyam**

**bba 19 92**

**104**

**vikas**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**btech 20 78**

**SQL> select \* from stu\_data order by stu\_mark asc;**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**104**

**vikas**

**btech 20 78**

**101**

**anuj**

**B.tech 20 88**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**103**

**shyam**

**bba 19 92**

**102**

**raman**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**mca 24 98**

**SQL>**

* **Desending Order**

**Syntax:-**

**SQL> select \* from stu\_data order by stu\_mark desc;**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**102**

**raman**

**mca 24 98**

**103**

**shyam**

**bba 19 92**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**101**

**anuj**

**B.tech 20 88**

**104**

**vikas**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**btech 20 78**

* **BETWEEN AND:-**

**Syntax:-**

**SQL> select \* from fact\_info1;**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**1001**

**arush**

**4001**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**2017**

**200000**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**1002**

**baby**

**4002**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**2004**

**38000**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**1004**

**saurabh**

**4001**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**2000**

**45000**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**1005**

**shivani**

**4001**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**1997**

**42000**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**1006**

**anivansh**

**4002**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**1997**

**28000**

* **SUM:-**

**Synatx:-**

**SQL> select \* from fact\_info1 where fac\_salary between 250000 to 450000;**

**select \* from fact\_info1 where fac\_salary between 250000 to 450000**

**\***

**ERROR at line 1:**

**ORA-00905: missing keyword**

**SQL> select \* from fact\_info1 where fac\_salary between 250000 to 40000;**

**select \* from fact\_info1 where fac\_salary between 250000 to 40000**

**\***

**ERROR at line 1:**

**ORA-00905: missing keyword**

**SQL> select \* from fact\_info1 where fac\_salary between 250000 AND 40000;**

**no rows selected**

**SQL> select \* from fact\_info1 where fac\_id between 1001 AND 1008;**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**1001**

**arush**

**4001**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**2017**

**200000**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**1002**

**baby**

**4002**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**2004**

**38000**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**1004**

**saurabh**

**4001**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**2000**

**45000**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**1005**

**shivani**

**4001**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**1997**

**42000**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**1006**

**anivansh**

**4002**

**FAC\_ID**

**----------**

**FAC\_FIRST\_NAME**

**--------------------------------------------------------------------------------**

**FAC\_DEPT\_ID**

**-----------**

**FAC\_JOINING\_DATE**

**--------------------------------------------------------------------------------**

**FAC\_SALARY**

**----------**

**1997**

**28000**

**SQL> select \* from stu\_data;**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**101**

**anuj**

**B.tech 20 88**

**102**

**raman**

**mca 24 98**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**103**

**shyam**

**bba 19 92**

**104**

**vikas**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**btech 20 78**

**SQL> select sum(stu\_age)as alias\_name from stu\_data;**

**ALIAS\_NAME**

**----------**

**83**

**SQL> select sum(stu\_age)as totalof\_age from stu\_data;**

**TOTALOF\_AGE**

**-----------**

**83**

* **OR:-**

**Syntax;-**

**SQL> select \* from stu\_data where stu\_age='24' or stu\_age='20';**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**101**

**anuj**

**B.tech 20 88**

**102**

**raman**

**mca 24 98**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**104**

**vikas**

**btech  *20 78***

* **IN:-**

**Synatx:-**

**select \* from stu\_data where stu\_age in ('20','24','19');**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**101**

**anuj**

**B.tech 20 88**

**102**

**raman**

**mca 24 98**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**103**

**shyam**

**bba 19 92**

**104**

**vikas**

**STU\_ID**

**----------**

**STU\_NAME**

**--------------------------------------------------------------------------------**

**STU\_COURSE STU\_AGE STU\_MARK**

**-------------------- ---------- ----------**

**btech 20 78**

**JOIN:-**

join means combining data together like row coloumn data.

1. Inner join
2. Left join
3. Right join
4. Full outer join

1.Inner join:-

SQL> select \* from student1;

STU\_ID STU\_NAME

---------- ---------------------------------

STU\_ADD

--------------------------------------------------------------------------------

1 rijwana

pune

2 roshni

pune

3 nik

Mumbai

SQL> select \* from t2;

TEA\_ID TEA\_NAME TEA\_CITY

---------- -------------------- -----------------------

1 akash pune

2 tejo mumbai

3 nimrit bmt

SQL> select student1.stu\_id,t2.tea\_name from student1 inner join t2 on student1.stu\_id=t2.tea\_id;

STU\_ID TEA\_NAME

---------- --------------------

1 akash

2 tejo

3 nimrit

2. Left join

SQL> select student1.stu\_name,t2.tea\_id from student1 left join t2 on student1.stu\_id=t2.tea\_id order by student1.stu\_name;

STU\_NAME TEA\_ID

--------------------------------- ----------

nik 3

rijwana 1

roshni 2

3.Right join

SQL> select student1.stu\_id,t2.tea\_city,t2.tea\_name from student1 right join t2 on student1.stu\_id=t2.tea\_id order by student1.stu\_id;

STU\_ID TEA\_CITY TEA\_NAME

---------- ----------------------- --------------------

1 pune akash

2 mumbai tejo

3 bmt nimrit

4.full outer join:-

SQL> select student1.stu\_name,t2.tea\_id from student1 full outer join t2 on student1.stu\_id=t2.tea\_id order by student1.stu\_name;

STU\_NAME TEA\_ID

--------------------------------- ----------

nik 3

rijwana 1

roshni 2

**First:-**

**Syntax:-**

**SELECT** **FIRST**(customer\_name) **AS** first\_customer **FROM** customers;

|  |  |  |  |
| --- | --- | --- | --- |
| **CUSTOMER\_NAME** | **AGE** | **ADDRESS** | **EXPENDITURE** |
| KAMAL SHARMA | 26 | GHAZIABAD | 6000 |
| ROBERT PETT | 23 | NEWYORK | 26000 |
| SHIKHA SRIVASTAV | 22 | DELHI | 9000 |

1. **SELECT** **FIRST** (CUSTOMER\_NAME) **AS** first\_customer **FROM** CUSTOMERS;
2. **After** that query, you will find the result:
3. KAMAL SHARMA

**Last**

**Syntax:-**

1. **SELECT** **LAST** (Last\_Name) **AS** Last\_Customers **FROM** cutsomers;

Output:-

Last\_name

SHARMA

PETT

SRIVASTAV

Group By

Syntax:-

SQL> create table emp1(name varchar(20),e\_id int,salary int);

Table created.

SQL> insert into emp1(name,e\_id,salary)values('rijwana',01,2000);

1 row created.

SQL> insert into emp1(name,e\_id,salary)values('anju',01,4000);

1 row created.

SQL> insert into emp1(name,e\_id,salary)values('anuu',02,6000);

1 row created.

SQL> insert into emp1(name,e\_id,salary)values('nik',03,7000);

1 row created.

SQL> select \* from emp1;

NAME E\_ID SALARY

-------------------- ---------- ----------

rijwana 1 2000

anju 1 4000

anuu 2 6000

nik 3 7000

SQL> select e\_id ,sum(salary) from emp1 group by e\_id;

E\_ID SUM(SALARY)

---------- -----------

1 6000

2 6000

3 7000

HAVING Clause

Syntax:-

SQL> select name,sum(salary) from emp1 group by name having sum(salary)>5000;

NAME SUM(SALARY)

-------------------- -----------

anuu 6000

nik 7000

SQL> select e\_id,sum(salary) from emp1 group by e\_id having sum(salary)>5000;

E\_ID SUM(SALARY)

---------- -----------

1 6000

2 6000

COMIIT SAVEPOINT ROLLBACK:-

Syntax:-

SQL> select \* from teacher1;

ID T\_NAME NUMBER\_OF\_STUDENT NUMBER\_OF\_TEACHER

---------- -------------------- ----------------- -----------------

NUMBER\_OF\_CLASSROOM EMAIL\_ID

------------------- -------------------------

1 rijwana 20 30

5 rijwanas18

2 sam 25 35

6 sam56

2 sam 60 98

8 nik87

SQL> commit;

Commit complete.

SQL> SAVEPOINT teacher1;

Savepoint created.

SQL> rollback to teacher1;

Rollback complete.

SQL> select \* from teacher1;

ID T\_NAME NUMBER\_OF\_STUDENT NUMBER\_OF\_TEACHER

---------- -------------------- ----------------- -----------------

NUMBER\_OF\_CLASSROOM EMAIL\_ID

------------------- -------------------------

1 rijwana 20 30

5 rijwanas18

2 sam 25 35

6 sam56

2 sam 60 98

8 nik87

SQL> savepoint insertion;

Savepoint created.

SQL> UPDATE teacher1 SET Number\_Of\_Student=60 WHERE ID = 2;

2 rows updated.

SQL> select \* from teacher1;

ID T\_NAME NUMBER\_OF\_STUDENT NUMBER\_OF\_TEACHER

---------- -------------------- ----------------- -----------------

NUMBER\_OF\_CLASSROOM EMAIL\_ID

------------------- -------------------------

1 rijwana 20 30

5 rijwanas18

2 sam 60 35

6 sam56

2 sam 60 98

8 nik87

SQL> savepoint updation;

Savepoint created.

SQL> ROLLBACK TO Insertion;

Rollback complete.

SQL> select \* from teacher1;

ID T\_NAME NUMBER\_OF\_STUDENT NUMBER\_OF\_TEACHER

---------- -------------------- ----------------- -----------------

NUMBER\_OF\_CLASSROOM EMAIL\_ID

------------------- -------------------------

1 rijwana 20 30

5 rijwanas18

2 sam 25 35

6 sam56

2 sam 60 98

8 nik87

SQL> delete from teacher1 where id=1;

1 row deleted.

SQL> select \* from teacher1;

ID T\_NAME NUMBER\_OF\_STUDENT NUMBER\_OF\_TEACHER

---------- -------------------- ----------------- -----------------

NUMBER\_OF\_CLASSROOM EMAIL\_ID

------------------- -------------------------

2 sam 25 35

6 sam56

2 sam 60 98

8 nik87

SQL> UPDATE teacher1 SET Number\_Of\_Student = 90 WHERE ID = 2;

2 rows updated.

SQL> savepoint updation;

Savepoint created.

SQL> rollback to updation;

Rollback complete.

SQL> select \* from teacher1;

ID T\_NAME NUMBER\_OF\_STUDENT NUMBER\_OF\_TEACHER

---------- -------------------- ----------------- -----------------

NUMBER\_OF\_CLASSROOM EMAIL\_ID

------------------- -------------------------

1 rijwana 60 30

5 rijwanas18

2 sam 90 35

6 sam56

SQL> rollback to insertion;

Rollback complete.

SQL> select \* from teacher1;

ID T\_NAME NUMBER\_OF\_STUDENT NUMBER\_OF\_TEACHER

---------- -------------------- ----------------- -----------------

NUMBER\_OF\_CLASSROOM EMAIL\_ID

------------------- -------------------------

1 rijwana 20 30

5 rijwanas18

2 sam 25 35

6 sam56

2 sam 60 98

8 nik87

2 sam 90 98

8 nik87

# **SQL String Functions**

SQL String functions are the predefined functions that allow the database users for string manipulation. These functions only accept, process, and give results of the string data type.

Following are the most important string functions in Structured Query Language.

**1.ASCII():-**

This function in SQL returns the ASCII value of the character in the output. It gives the ASCII value of the left-most character of the string.

**Syntax of ASCII String Function:**

**Syntax1: This syntax uses ASCII with the table column;**

1. **SELECT** ASCII(Column\_Name) **as** ASCII\_Name **FROM** Table\_Name;

SQL> create table fact(fact\_id int,fact\_first\_name varchar(20),fact\_last\_name varchar(25),fact\_dept\_id int,fact\_add varchar(20),fact\_city varchar(26),fact\_salary int);

Table created.

SQL> select \* from fact;

FACT\_ID FACT\_FIRST\_NAME FACT\_LAST\_NAME FACT\_DEPT\_ID

---------- -------------------- ------------------------- ------------

FACT\_ADD FACT\_CITY FACT\_SALARY

-------------------- -------------------------- -----------

1001 aarushi shaikh 4001

korhale mumbai 20000

1002 babali roy 4002

viman\_Nagar mumbai 20000

1003 payali thakur 4003

nagoba temple nagpur 50000

FACT\_ID FACT\_FIRST\_NAME FACT\_LAST\_NAME FACT\_DEPT\_ID

---------- -------------------- ------------------------- ------------

FACT\_ADD FACT\_CITY FACT\_SALARY

-------------------- -------------------------- -----------

1004 rijwana shaikh 4004

kasaba baramati 70000

1004 anjli samla 4005

pimpri pune 80000

1004 roshani pahnalakr 4006

secorttwo goa 90000

FACT\_ID FACT\_FIRST\_NAME FACT\_LAST\_NAME FACT\_DEPT\_ID

---------- -------------------- ------------------------- ------------

FACT\_ADD FACT\_CITY FACT\_SALARY

-------------------- -------------------------- -----------

1007 rekha rathod 4007

hill dubai 10000

7 rows selected.

SQL> SELECT fact\_city, ASCII(fact\_city) AS ASCII\_code\_of\_column FROM fact;

FACT\_CITY ASCII\_CODE\_OF\_COLUMN

-------------------------- --------------------

mumbai 109

mumbai 109

nagpur 110

baramati 98

pune 112

goa 103

dubai 100

7 rows selected.

SQL>