CREATE TABLE –

SQL> CREATE TABLE STUD1
(RNO NUMBER(3),
FNAME VARCHAR(10),
LNAME VARCHAR(10),
MOBILE NUMBER(10),
CITY VARCHAR(12),
COURSE VARCHAR(10));

Table created.

SQL> DESC STUD1;

Name	Null?	Type
RNO		NUMBER(3)
FNAME		VARCHAR2(10)
LNAME		VARCHAR2(10)
MOBILE		NUMBER(10)
CITY		VARCHAR2(12)
COURSE		VARCHAR2(10)

INSERT RECORDS INTO TABLE –

SQL> INSERT INTO STUD1 VALUES (01, 'OM', 'BHAVSAR', 9977885566, 'NASHIK', 'BCA');

1 row created.

SQL>

SQL> INSERT INTO STUD1 (RNO, FNAME, LNAME, MOBILE, CITY, COURSE)
VALUES (02, 'SAI', 'PATIL', 9922665588, 'SHIRPUR', 'BBA');

1 row created.

SQL> SELECT * FROM STUD1;

RNO	FNAME	LNAME	MOBILE	CITY	COURSE
1	OM	BHAVSAR	9977885566	NASHIK	BCA
2	SAI	PATIL	9922665588	SHIRPUR	BBA

UNIQUE Constraints –

SQL> CREATE TABLE STUD100
 (RNO NUMBER(3) **UNIQUE**,
FNAME VARCHAR(10));

Table created.

SQL> DESC STUD100;

```
Name                                      Null?              Type
-------------------------------------     --------           ---------------------------
RNO                                                          NUMBER(3)
FNAME                                                        VARCHAR2(10)
```

SQL> INSERT INTO STUD100 (RNO, FNAME) VALUES (01, 'OM');

1 row created.

UNIQUE, NOT NULL and DEFAULT Constraints –

SQL> CREATE TABLE STUD101
(RNO NUMBER(3) UNIQUE,
FNAME VARCHAR(10) NOT NULL,
CITY VARCHAR(10) DEFAULT 'SHIRPUR'
);

Table created.

SQL> DESC STUD101;
```
 Name                         Null?                   Type
------------------------------     ----------------------     ---------------------------
 RNO                                                          NUMBER(3)
 FNAME                        NOT NULL                VARCHAR2(10)
 CITY                                                         VARCHAR2(10)
```

SQL> INSERT INTO STUD101 (RNO, FNAME, CITY)
VALUES (01, 'SHIV', 'MUMBAI');

1 row created.

SQL> INSERT INTO STUD101 **(RNO, FNAME, CITY)** VALUES **(03, 'SAI', 'NASHIK');**

1 row created.

SQL> SELECT * FROM STUD101;
```
    RNO        FNAME        CITY
----------     ----------     ----------
     1         SHIV         MUMBAI
     3         SAI          NASHIK
```

SQL> INSERT INTO **STUD101 (RNO, FNAME) VALUES (04, 'SHIV');**

1 row created.

SQL> SELECT * FROM STUD101;
```
    RNO        FNAME        CITY
----------     ----------     ----------
     1         SHIV         MUMBAI
     3         SAI          NASHIK
     4         SHIV         SHIRPUR
```

UNIQUE, NOT NULL, DEFAULT and CHECK Constraints –

```
SQL)CREATE TABLE SYBCA
(RNO NUMBER(3) UNIQUE,
FNAME VARCHAR(12) NOT NULL,
LNAME VARCHAR(10),
MARK NUMBER(3) CHECK(MARK<=100),
CITY VARCHAR(12) DEFAULT 'SHIRPUR'
);

SQL> INSERT INTO SYBCA (RNO, FNAME, LNAME, MARK, CITY) VALUES (01, 'OM', 'JOSHI', 80, 'NASHIK');

SQL> SELECT * FROM SYBCA;
```

PRIMARY KEY Constraints –

SQL> CREATE TABLE TCS
 2 (ENO NUMBER(3) PRIMARY KEY,
 3 ENAME VARCHAR(10));

```
SQL> DESC TCS;
 Name            Null?        Type
 ---------------  --------     ---------------------------
 ENO             NOT NULL     NUMBER(3)
 ENAME                        VARCHAR2(10)
```

SQL> CREATE TABLE TCSNEW
 (EMPNO NUMBER(3),
CITY VARCHAR(10),
FOREIGN KEY(EMPNO) REFERENCES TCS(ENO));

Table created.

SQL> INSERT INTO TCS(ENO, ENAME) VALUES (01, 'OM');

1 row created.

SQL> SELECT * FROM TCS;

```
    ENO ENAME
---------- ----------
     1 OM
     2 SAI
     3 RAM
```

SQL> INSERT INTO TCSNEW(EMPNO, CITY) VALUES (01, 'SHIRPUR');

1 row created.

SQL> INSERT INTO TCSNEW(EMPNO, CITY) VALUES (02, 'MUMBAI');

1 row created.

SQL> SELECT * FROM TCSNEW;

```
   EMPNO CITY
---------- ----------
     1 SHIRPUR
     2 MUMBAI
```

SQL> SELECT * FROM TCS TCSNEW;

```
    ENO         ENAME
----------      ----------
     1          OM
     2          SAI
     3          RAM
```

UPDATE RECORDS –

Syntax –
UPDATE table_name
SET field1 = new-value1, field2 = new-value2,
[**WHERE** CLAUSE]

SQL> **CREATE TABLE** BCA20
(STUD_ID NUMBER(3),
FNAME VARCHAR(10),
DOB DATE,
CITY VARCHAR(10));

Table created.

SQL> INSERT INTO BCA20 (STUD_ID, FNAME, DOB, CITY) VALUES (01, 'om', '01-jan-2020', 'shirpur');

1 row created.

SQL> SELECT * FROM BCA20;

```
  STUD_ID      FNAME        DOB           CITY
---------------  ----------  --------------  ----------
      1         OM          01-JAN-20      SHIRPUR
      2         SAI         02-FEB-19      MUMBAI
      3         SHIV        03-MAR-18      NASHIK
```

SQL> UPDATE BCA20
SET CITY='NAGPUR'
WHERE STUD_ID=1;

1 row updated.

SQL> SELECT * FROM BCA20;

```
  STUD_ID      FNAME        DOB          CITY
----------    ----------   ---------    ----------
      1         OM          01-JAN-20      NAGPUR
      2         SAI         02-FEB-19      MUMBAI
      3         SHIV        03-MAR-18      NASHIK
```

SQL> UPDATE BCA20 SET FNAME='SHIVAM', CITY='DELHI' WHERE STUD_ID=3;

1 row updated.

SQL> SELECT * FROM BCA20;

```
  STUD_ID      FNAME        DOB           CITY
---------------  -------------  ------------  -------------
      1         OM          01-JAN-20      NAGPUR
      2         SAI         02-FEB-19      MUMBAI
      3         SHIVAM      03-MAR-18      DELHI
```

Syntax –

```
SQL> CREATE TABLE RCPEMP
(EMP_ID NUMBER(3),
ENAME VARCHAR(12),
LOCATION VARCHAR(12),
DOJ DATE,
SALARY NUMBER(5));

Table created.

SQL> DESC RCPEMP;
 Name                      Null?          Type
 ------------------        --------       --------------------------
 EMP_ID                                   NUMBER(3)
 ENAME                                    VARCHAR2(12)
 LOCATION                                 VARCHAR2(12)
 DOJ                                      DATE
 SALARY                                   NUMBER(5)

SQL> INSERT INTO RCPEMP VALUES(101, 'JAYANT', 'PUNE', '07-FEB-2023', 20000);
SQL> INSERT INTO RCPEMP VALUES(410, 'AAKASH', 'MUMBAI', '25-OCT-2018', 25000);
SQL> INSERT INTO RCPEMP VALUES(815, 'KRISHNA', 'BANGLORE', '15-MAR-2016', 22000);
SQL> INSERT INTO RCPEMP VALUES(165, 'KOMAL', 'SHIRPUR', '20-SEP-2019', 24000);

SQL> SELECT * FROM RCPEMP;

   EMP_ID     ENAME         LOCATION      DOJ         SALARY
 ----------   -----------   ------------  ---------   ----------
      101      JAYANT        PUNE          07-FEB-23   20000
      410      AAKASH        MUMBAI        25-OCT-18   25000
      815      KRISHNA       BANGLORE      15-MAR-16   22000
      165      KOMAL         SHIRPUR       20-SEP-19   24000

SQL> SELECT * FROM RCPEMP WHERE EMP_ID=815;

   EMP_ID     ENAME         LOCATION      DOJ         SALARY
 ----------   -----------   ------------  ---------   ----------
      815      KRISHNA       BANGLORE      15-MAR-16   22000

SQL> SELECT * FROM RCPEMP WHERE LOCATION='BANGLORE';

   EMP_ID     ENAME         LOCATION      DOJ         SALARY
 ----------   -----------   ------------  ---------   ----------
      815      KRISHNA       BANGLORE      15-MAR-16   22000

SQL> SELECT * FROM RCPEMP WHERE SALARY>20000;

   EMP_ID     ENAME         LOCATION      DOJ         SALARY
 ----------   -----------   ------------  ---------   ----------
      410      AAKASH        MUMBAI        25-OCT-18   25000
      815      KRISHNA       BANGLORE      15-MAR-16   22000
      165      KOMAL         SHIRPUR       20-SEP-19   24000
```

```
SQL> SELECT * FROM RCPEMP WHERE EMP_ID=165;

    EMP_ID    ENAME        LOCATION      DOJ          SALARY
  ----------  -----------  ------------  ---------  ----------
       165    KOMAL        SHIRPUR       20-SEP-19       24000

SQL> SELECT ENAME, SALARY FROM RCPEMP WHERE EMP_ID=165;

ENAME         SALARY
-----------  ----------
KOMAL          24000

SQL> SELECT EMP_ID, ENAME, SALARY FROM RCPEMP WHERE LOCATION='MUMBAI';

    EMP_ID    ENAME        SALARY
  ----------  -----------  ----------
       410    AAKASH         25000

SQL> SELECT * FROM RCPEMP;

    EMP_ID    ENAME        LOCATION      DOJ          SALARY
  ----------  -----------  ------------  ---------  ----------
       101    JAYANT       PUNE          07-FEB-23       20000
       410    AAKASH       MUMBAI        25-OCT-18       25000
       815    KRISHNA      BANGLORE      15-MAR-16       22000
       165    KOMAL        SHIRPUR       20-SEP-19       24000

SQL> UPDATE RCPEMP
SET LOCATION='HYDRABAD'
WHERE EMP_ID=410;

1 row updated.

SQL> SELECT * FROM RCPEMP;

    EMP_ID    ENAME        LOCATION      DOJ          SALARY
  ----------  -----------  ------------  ---------  ----------
       101    JAYANT       PUNE          07-FEB-23       20000
       410    AAKASH       HYDRABAD      25-OCT-18       25000
       815    KRISHNA      BANGLORE      15-MAR-16       22000
       165    KOMAL        SHIRPUR       20-SEP-19       24000

SQL> UPDATE RCPEMP SET SALARY=30000 WHERE EMP_ID=101;

1 row updated.

SQL> SELECT * FROM RCPEMP;

    EMP_ID    ENAME        LOCATION      DOJ          SALARY
  ----------  -----------  ------------  ---------  ----------
       101    JAYANT       PUNE          07-FEB-23       30000
       410    AAKASH       HYDRABAD      25-OCT-18       25000
       815    KRISHNA      BANGLORE      15-MAR-16       22000
       165    KOMAL        SHIRPUR       20-SEP-19       24000
```

```
SQL> UPDATE RCPEMP SET DOJ='18-NOV-2019' WHERE EMP_ID=165;

1 row updated.

SQL> SELECT * FROM RCPEMP;

   EMP_ID    ENAME        LOCATION      DOJ        SALARY
---------- ------------ ------------ --------- ----------
      101   JAYANT       PUNE         07-FEB-23   30000
      410   AAKASH       HYDRABAD     25-OCT-18   25000
      815   KRISHNA      BANGLORE     15-MAR-16   22000
      165   KOMAL        SHIRPUR      18-NOV-19   24000

SQL> SELECT EMP_ID, ENAME, SALARY FROM RCPEMP WHERE LOCATION='MUMBAI';

no rows selected


SQL> DELETE FROM IMRDEMP WHERE EMPID=1;

1 row deleted.
```

ORDER BY –

SQL> CREATE TABLE BCA20
(STUD_ID NUMBER(3),
FNAME VARCHAR(10),
DOB DATE,
CITY VARCHAR(10));

Table created.

SQL> INSERT INTO BCA20 (STUD_ID, FNAME, DOB, CITY) VALUES (01, 'om', '01-jan-2020', 'shirpur');

SELECT column-list
FROM table_name
[WHERE condition]
[ORDER BY column1, column2, .. columnN] [ASC | DESC];

SQL> SELECT * FROM BCA20;

```
  STUD_ID FNAME     DOB     CITY
---------- ---------- --------- ----------
       1 om        01-JAN-20 NAGPUR
       2 SAI       02-FEB-19 MUMBAI
       3 SHIVAM    03-MAR-18 DELHI
```

SQL> SELECT * FROM BCA20 ORDER BY CITY;

(Arrange city in ascending Order)

```
  STUD_ID      FNAME       DOB        CITY
----------   ----------   ---------   ----------
       3     SHIVAM      03-MAR-18   DELHI
       2     SAI         02-FEB-19   MUMBAI
       1     om          01-JAN-20   NAGPUR
```

SQL> SELECT * FROM BCA20 ORDER BY stud_id DESC;

(Arrange stud_id in descending order)

```
  STUD_ID      FNAME       DOB        CITY
----------   ----------   ---------   ----------
       3     SHIVAM      03-MAR-18   DELHI
       2     SAI         02-FEB-19   MUMBAI
       1     OM          01-JAN-20   NAGPUR
```

```
SQL> CREATE TABLE IMRDEMP
(EMPID NUMBER(3),
ENAME VARCHAR(15),
DESIGNATION VARCHAR(15),
DOJ DATE,
LOCATION VARCHAR(15));

Table created.

SQL> DESC IMRDEMP;
 Name                            Null?   Type
 ---------------------------------------- -------- ----------------------------
 EMPID                                   NUMBER(3)
 ENAME                                   VARCHAR2(15)
 DESIGNATION                             VARCHAR2(15)
 DOJ                                     DATE
 LOCATION                                VARCHAR2(15)

SQL> INSERT INTO IMRDEMP
VALUES(101, 'ROHIT', 'MANAGER', '01-JAN-2018', 'PUNE');

1 row created.

SQL> SELECT * FROM IMRDEMP;

   EMPID       ENAME          DESIGNATION          DOJ           LOCATION
---------- -------------- -------------- --------- --------------
   101      ROHIT        MANAGER             01-JAN-18    PUNE
   402      KARAN        ENGINEER            07-FEB-22    NAGPUR
   201      SNEHA        CA                  18-DEC-21 MUMBAI
   410      SAKSHI       HRM                  25-OCT-12 BANGLORE

SQL> SELECT * FROM IMRDEMP;

   EMPID ENAME          DESIGNATION    DOJ      LOCATION
---------- -------------- -------------- --------- --------------
   101 ROHIT          MANAGER          01-JAN-18 PUNE
   402 KARAN          ENGINEER         07-FEB-22 NAGPUR
   201 SNEHA          CA              18-DEC-21 MUMBAI
   410 SAKSHI         HRM              25-OCT-12 BANGLORE

SQL>
UPDATE IMRDEMP
 SET LOCATION='HYDRABAD'
WHERE EMPID=201;

1 row updated.
```

```
SQL> SELECT * FROM IMRDEMP;

    EMPID ENAME         DESIGNATION   DOJ       LOCATION
--------- -------------- ------------- --------- ---------------
      101 ROHIT         MANAGER        01-JAN-18 PUNE
      402 KARAN         ENGINEER       07-FEB-22 NAGPUR
      201 SNEHA         CA             18-DEC-21 HYDRABAD
      410 SAKSHI        HRM            25-OCT-12 BANGLORE

SQL> UPDATE IMRDEMP SET DESIGNATION='CEO', LOCATION='SINGAPUR' WHERE EMPID=101;

1 row updated.

SQL> SELECT * FROM IMRDEMP;

    EMPID ENAME         DESIGNATION   DOJ       LOCATION
--------- -------------- ------------- --------- ---------------
      101 ROHIT         CEO            01-JAN-18 SINGAPUR
      402 KARAN         ENGINEER       07-FEB-22 NAGPUR
      201 SNEHA         CA             18-DEC-21 HYDRABAD
      410 SAKSHI        HRM            25-OCT-12 BANGLORE

SQL> UPDATE IMRDEMP
SET ENAME='JAYASHREE', DESIGNATION='IT', DOJ='01-JAN-2021', LOCATION='DUBAI'
WHERE EMPID=410;

1 row updated.

SQL> SELECT * FROM IMRDEMP;

    EMPID ENAME         DESIGNATION   DOJ       LOCATION
--------- -------------- ------------- --------- ---------------
      101 ROHIT         CEO            01-JAN-18 SINGAPUR
      402 KARAN         ENGINEER       07-FEB-22 NAGPUR
      201 SNEHA         CA             18-DEC-21 HYDRABAD
      410 JAYASHREE     IT             01-JAN-21 DUBAI

SQL> UPDATE IMRDEMP
SET EMPID=110
WHERE ENAME='ROHIT';

1 row updated.

SQL> SELECT * FROM IMRDEMP ORDER BY EMPID;

    EMPID ENAME         DESIGNATION   DOJ       LOCATION
--------- -------------- ------------- --------- ---------------
      110 ROHIT         CEO            01-JAN-18 SINGAPUR
      201 SNEHA         CA             18-DEC-21 HYDRABAD
      402 KARAN         ENGINEER       07-FEB-22 NAGPUR
      410 JAYASHREE     IT             01-JAN-21 DUBAI
```

```
SQL> SELECT * FROM IMRDEMP ORDER BY DOJ;

    EMPID ENAME          DESIGNATION   DOJ      LOCATION
---------- -------------- -------------- -------- ---------------
      110 ROHIT          CEO           01-JAN-18 SINGAPUR
      410 JAYASHREE      IT            01-JAN-21 DUBAI
      201 SNEHA          CA            18-DEC-21 HYDRABAD
      402 KARAN          ENGINEER      07-FEB-22 NAGPUR

SQL> SELECT * FROM IMRDEMP ORDER BY LOCATION DESC;

    EMPID ENAME          DESIGNATION   DOJ      LOCATION
---------- -------------- -------------- -------- ---------------
      110 ROHIT          CEO           01-JAN-18 SINGAPUR
      402 KARAN          ENGINEER      07-FEB-22 NAGPUR
      201 SNEHA          CA            18-DEC-21 HYDRABAD
      410 JAYASHREE      IT            01-JAN-21 DUBAI

SQL> SELECT * FROM IMRDEMP ORDER BY LOCATION;

    EMPID ENAME          DESIGNATION   DOJ      LOCATION
---------- -------------- -------------- -------- ---------------
      410 JAYASHREE      IT            01-JAN-21 DUBAI
      201 SNEHA          CA            18-DEC-21 HYDRABAD
      402 KARAN          ENGINEER      07-FEB-22 NAGPUR
      110 ROHIT          CEO           01-JAN-18 SINGAPUR
```

Alter Command –

Existing Table -

Name	Type
EMPID	NUMBER(3)
ENAME	VARCHAR2(15)
DESIGNATION	VARCHAR2(15)
DOJ	DATE
LOCATION	VARCHAR2(15)

ALTER COMMAND – Add New Column in an existing table

SYNTAX -
ALTER TABLE *table_name*
ADD *column_name datatype;*

EXAMPLE -
SQL> ALTER TABLE IMRDEMP
ADD SALARY NUMBER(5);

Table altered.

SQL> DESC IMRDEMP;

Name	Type
EMPID	NUMBER(3)
ENAME	VARCHAR2(15)
DESIGNATION	VARCHAR2(15)
DOJ	DATE
LOCATION	VARCHAR2(15)
SALARY	NUMBER(5)

ALTER COMMAND - DROP COLUMN in an existing table

SYNTAX -
ALTER TABLE table_name
DROP COLUMN column_name;

EXAMPLE –
SQL> ALTER TABLE IMRDEMP
DROP COLUMN SALARY;

Table altered.

```
SQL> DESC IMRDEMP;

 Name                Type
 ------------------- ----------------------
 EMPID               NUMBER(3)
 ENAME               VARCHAR2(15)
 DESIGNATION         VARCHAR2(15)
 DOJ                 DATE
 LOCATION            VARCHAR2(15)
```

ALTER TABLE - RENAME COLUMN

```
ALTER TABLE table_name
RENAME COLUMN old_name to new_name;

SQL> ALTER TABLE IMRDEMP
RENAME COLUMN LOCATION TO CITY;
```

Table altered.

```
SQL> DESC IMRDEMP;
 Name                           Null?    Type
 ------------------------------ -------- -------------------------
 EMPID                                   NUMBER(3)
 ENAME                          NOT NULL VARCHAR2(15)
 DESIGNATION                             VARCHAR2(10)
 DOJ                                     DATE
 CITY                                    VARCHAR2(15)
```

ALTER COMMAND - CHANGE DATA TYPE

SYNTAX -
```
ALTER TABLE table_name
MODIFY column_name datatype;
```

Example -
```
SQL> ALTER TABLE IMRDEMP
MODIFY DESIGNATION VARCHAR(10);
```

Table altered.

```
SQL> DESC IMRDEMP;
```

```
Name                   Type
---------------------  ---------------------------
 EMPID                  NUMBER(3)
 ENAME                  VARCHAR2(15)
 DESIGNATION            VARCHAR2(10)
 DOJ                    DATE
 LOCATION               VARCHAR2(15)
```

ALTER COMMAND - Add NOT NULL constraint

SYNTAX -
ALTER TABLE *table_name*
MODIFY *column_name datatype* **NOT NULL**;

Example -
SQL> **ALTER TABLE** **IMRDEMP**
MODIFY **ENAME VARCHAR(15)** **NOT NULL**;

Table altered.

```
Name                   Null?            Type
---------------------  ---------------  ---------------------------
 EMPID                                   NUMBER(3)
 ENAME                  NOT NULL         VARCHAR2(15)
 DESIGNATION                             VARCHAR2(10)
 DOJ                                     DATE
 LOCATION                                VARCHAR2(15)
```

ALTER COMMAND - ADD UNIQUE CONSTRAINT

SYNTAX -
ALTER TABLE *table_name*
MODIFY *column_name datatype* **UNIQUE**;

Example -
SQL> **ALTER TABLE** **IMRDEMP**
MODIFY **DESIGNATION VARCHAR(10)** **UNIQUE**;

Table altered.

ALTER COMMAND - ADD CHECK CONSTRAINT

SYNTAX -
ALTER TABLE *table_name*
MODIFY *column_name datatype* **CHECK (CONDITION)**;

SYNTAX -
SQL> **ALTER TABLE IMRDEMP**
MODIFY SALARY NUMBER(5) CHECK(SALARY>=1000);

ALTER COMMAND - ADD PRIMARY KEY

SYNTAX -
ALTER TABLE *table_name*
MODIFY *column_name datatype* **PRIMARY KEY**;

SYNTAX -
SQL> **ALTER TABLE IMRDEMP**
MODIFY EMPID NUMBER(3) PRIMARY KEY;

AGGREGATE FUNCTIONS –

SQL> CREATE TABLE RCSTAFF
(EID NUMBER(3),
ENAME VARCHAR(10),
DESIGNATION VARCHAR(6),
GSALARY NUMBER(5),
PF NUMBER(4),
ALLOWANCES NUMBER(4));

Table created.

SQL> DESC RCSTAFF;

Name	Null?	Type
EID		NUMBER(3)
ENAME		VARCHAR2(10)
DESIGNATION		VARCHAR2(6)
GSALARY		NUMBER(5)
PF		NUMBER(4)
ALLOWANCES		NUMBER(4)

SQL> INSERT INTO RCSTAFF VALUES(01, 'OM', 'CEO', 50000, 5000, 8000);

SQL> INSERT INTO RCSTAFF VALUES(02, 'SAI', 'MD', 60000, 6000, 9000);

SQL> INSERT INTO RCSTAFF VALUES(03, 'SHIV', 'RM', 40000, 4000, 6000);

SQL> INSERT INTO RCSTAFF VALUES(04, 'ROCKY', 'CLERK', 10000, 1000, 2000);

SQL> SELECT * FROM RCSTAFF;

EID	ENAME	DESIGN	GSALARY	PF	ALLOWANCES
1	OM	CEO	50000	5000	8000
2	SAI	MD	60000	6000	9000
3	SHIV	RM	40000	4000	6000
4	ROCKY	CLERK	10000	1000	2000

AVERAGE -

SQL> SELECT AVG(GSALARY)   FROM RCSTAFF;

AVG(GSALARY)

40000

SQL> **SELECT AVG**(GSALARY) **"AVERAGE" FROM** RCSTAFF;

```
  AVERAGE
----------------
   40000
```

SUM -

SQL> SELECT SUM(PF) FROM RCSTAFF;

```
  SUM(PF)
----------------
   16000
```

SQL> **SELECT SUM**(PF) **"TOTAL PF AMOUNT" FROM** RCSTAFF;

```
TOTAL PF AMOUNT
--------------------------
       16000
```

MAXIMUM -

SQL> **SELECT MAX**(GSALARY) **FROM** RCSTAFF;

```
MAX(GSALARY)
---------------------
   60000
```

MINIMUM -

SQL> SELECT MIN(GSALARY) FROM RCSTAFF;

```
MIN(GSALARY)
---------------------
   10000
```

COUNT -

SQL> SELECT COUNT(EID) FROM RCSTAFF;

```
COUNT(EID)
-----------------
     4
```

STRING FUNCTION –

SQL> select ename, length(ename) from rcpstaff;

```
ENAME   LENGTH(ENAME)
------- -------------
SHIV          4
```

SQL> select eid, concat(eid, ename) from rcpstaff;

```
   EID CONCAT(EID,ENAME)
---------- ----------------------------------------------
   101 101SHIV
```

SQL> select lower(ename) from rcpstaff;

```
LOWER(E
-------
Shiv
```

SQL> select upper(ename) "employee name" from rcpstaff;

```
employe
-------
SHIV
```

SQL> select upper(ename) "emp" from rcpstaff;

```
emp
-------
SHIV
```

SQL> SELECT RTRIM('DNYANESHWAR', 'SHWAR') FROM DUAL;

```
RTRIM(
------
DNYANE
```

SQL> SELECT LTRIM('DNYANESHWAR', 'DNYA') FROM DUAL;

```
LTRIM(
------
ESHWAR
```

```
SQL> SELECT TRIM('   RCPIMRD   ') FROM DUAL;

TRIM('R
-------
RCPIMRD


SQL> SELECT LPAD(ENAME, 7, '*') FROM RCPSTAFF;

LPAD(EN
-------
***SHIV
*****OM


SQL> SELECT LPAD('ABC', 7, '*') FROM DUAL;

LPAD('A
-------
****ABC


SQL> SELECT INSTR('HELLO THIS IS IMRD COLLEGE', 'IMRD') FROM DUAL;

INSTR('HELLOTHISISIMRDCOLLEGE','IMRD')
--------------------------------------
                    15


SQL> SELECT ASCII('X') FROM DUAL;

ASCII('X')
----------
     88
```