Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

EXERCISE 5: SQL BUILT IN FUNCTIONS

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Date: 01/09/2021

DBMS LAB ASSIGNMENT 5 MEHER SHRISHTI NIGAM 20BRS1193

SQL BUILT IN FUNCTIONS

Create an EMPLOYEE Table with the following attributes

EMPID, EMPNAME, JOB, DOB, SALARY, DEPTNO, GENDER

```
SQL> CREATE TABLE EMP_20BRS1193 (EMPID INT PRIMARY KEY, EMPNAME VARCHAR2(30), JOB VARCHAR2(30), DOJ DATE, DOB DATE, SALARY INT, DEPTNO INT,
 DEPTNAME VARCHAR2(20), MANAGER_NO INT, GENDER VARCHAR2(1));

Table created.

SQL> INSERT ALL
  2  INTO EMP_20BRS1193 VALUES (1001, 'Khushi Dutta', 'Developer', '08-Oct-2017', '08-Aug-1995', 200000, 101, 'Market Research',3, 'F')
  3  INTO EMP_20BRS1193 VALUES (1002, 'Mayuram Das', 'Designer', '09-Jan-2014', '08-Sep-1991',  210000, 102, 'Product Design',1, 'M')
  4  INTO EMP_20BRS1193 VALUES (1003, 'Aakash Deshpande', 'Manager', '11-Apr-2012', '08-Dec-1985', 260000, 103, 'Operations', 1, 'M')
  5  INTO EMP_20BRS1193 VALUES (1004, 'Rudra Chad', 'Analyst', '10-Jun-2018', '08-Feb-1997',220000, 101, 'Market Research', 3, 'M')
  6  INTO EMP_20BRS1193 VALUES (1005, 'Sumati Balay', 'Manager', '07-Feb-2007', '08-Apr-1979',280000, 103, 'Finance', 3,'F')
  7  INTO EMP_20BRS1193 VALUES (1006, 'Nilima Deol', 'Manager', '12-Sep-2013', '08-Oct-1986',260000, 104,'Sales', 2, 'F')
  8  INTO EMP_20BRS1193 VALUES (1007, 'Pran Bhalla', 'Accountant', '16-Jun-2015', '08-Sep-1989',180000, 105, 'Finance', 3, 'M')
  9  INTO EMP_20BRS1193 VALUES (1008, 'Akansha DAlia', 'Salesman', '06-Nov-2019','08-Dec-1998', 165000, 104,'Sales', 2, 'F')
 10  INTO EMP_20BRS1193 VALUES (1009, 'Rahul Singh', 'Analyst', '01-Jan-2020', '08-Sep-1994',200000, 103,'Operations', 1, 'M')
 11  INTO EMP_20BRS1193 VALUES (1010, 'Jasleen Kaur', 'Developer', '19-Jul-2014', '08-Nov-1988',250000, 102,'Product Design', 1, 'F')
 12  INTO EMP_20BRS1193 VALUES (1011, 'Atharva Kumar', 'Human Resource', '09-Jan-2016', '08-Oct-1991',100000, 106, 'Human Resource', 1, 'M'
 )
 13  INTO EMP_20BRS1193 VALUES (1012, 'Harsh Nigam', 'Salesman', '15-Feb-2016', '08-Jun-1993',180000, 104,'Sales', 2, 'M' )
 14  INTO EMP_20BRS1193 VALUES (1013, 'Ravi Dixit', 'Accountant', '18-Mar-2014', '08-Aug-1991',190000, 105,'Finance', 3, 'M' )
 15  INTO EMP_20BRS1193 VALUES (1014, 'Anisha Nanda', 'Salesman', '05-May-2015', '08-Oct-1990',180500, 104,'Sales', 2, 'F')
 16  INTO EMP_20BRS1193 VALUES (1015, 'Arjun Ravel', 'Salesman', '02-Mar-2019', '08-Mar-1996',165000, 104,'Sales', 2, 'M')
 17  INTO EMP_20BRS1193 VALUES (1016, 'Navin Johal', 'Analyst', '14-Apr-2017', '08-May-1993',220000, 105,'Finance', 3, 'M' )
 18  INTO EMP_20BRS1193 VALUES (1017, 'Bhuvana Narayan', 'Developer', '04-Jul-2018', '08-Feb-1995',220000, 102,'Product Design', 1, 'F')
 19  INTO EMP_20BRS1193 VALUES (1018, 'Shekhar Parsa', 'Developer', '17-Dec-2015', '08-Jun-1990',220000, 104,'Sales', 2, 'M' )
 20  INTO EMP_20BRS1193 VALUES (1019, 'Akhil Tara', 'Accountant', '03-May-2017', '08-Aug-1991',170000, 105,'Finance', 3, 'M' )
 21  INTO EMP_20BRS1193 VALUES (1020, 'Ishita Mohanty', 'Designer', '13-Aug-2014', '08-Apr-1989',220000, 102,'Product Design', 1, 'F')
 22  INTO EMP_20BRS1193 VALUES (1021, 'Gaurav Mishra', 'Analyst', '13-Nov-2018', '08-Oct-1991',210000, 101,'Market Research', 3, 'M')
 23  SELECT * FROM DUAL;

21 rows created.
```

1. Calculate the square root of the salary of all employees.

SELECT EMPNAME, SQRT(SALARY) AS SQRT_SALARY FROM EMP_20BRS1193;

```
SQL> SELECT EMPNAME, SQRT(SALARY) AS SQRT_SALARY FROM EMP_20BRS1193;

EMPNAME                        SQRT_SALARY
------------------------------ -----------
Khushi Dutta                    447.213595
Mayuram Das                     458.257569
Aakash Deshpande                509.901951
Rudra Chad                      469.041576
Sumati Balay                    529.150262
Nilima Deol                     509.901951
Pran Bhalla                     424.264069
Akansha DAlia                    406.20192
Rahul Singh                     447.213595
Jasleen Kaur                           500
Atharva Kumar                   316.227766

EMPNAME                        SQRT_SALARY
------------------------------ -----------
Harsh Nigam                     424.264069
Ravi Dixit                      435.889894
Anisha Nanda                    424.852916
Arjun Ravel                      406.20192
Navin Johal                     469.041576
Bhuvana Narayan                 469.041576
Shekhar Parsa                   469.041576
Akhil Tara                      412.310563
Ishita Mohanty                  469.041576
Gaurav Mishra                   458.257569

21 rows selected.
```

2. Apply any other five numeric built in function to ‘salary’ attribute of employee table

SELECT EMPNAME, MOD(SALARY, 7) AS MOD_SAL FROM EMP_20BRS1193;

```
SQL> SELECT EMPNAME, MOD(SALARY, 7) AS MOD_SAL FROM EMP_20BRS1193;

EMPNAME                        MOD_SAL
------------------------------ ----------
Khushi Dutta                            3
Mayuram Das                             0
Aakash Deshpande                        6
Rudra Chad                              4
Sumati Balay                            0
Nilima Deol                             6
Pran Bhalla                             2
Akansha DAlia                           3
Rahul Singh                             3
Jasleen Kaur                            2
Atharva Kumar                           5

EMPNAME                        MOD_SAL
------------------------------ ----------
Harsh Nigam                             2
Ravi Dixit                              6
Anisha Nanda                            5
Arjun Ravel                             3
Navin Johal                             4
Bhuvana Narayan                         4
Shekhar Parsa                           4
Akhil Tara                              5
Ishita Mohanty                          4
Gaurav Mishra                           0

21 rows selected.
```

SELECT EMPNAME, SIN(SALARY) AS SIN_SAL FROM EMP_20BRS1193;

```
SQL> SELECT EMPNAME, SIN(SALARY) AS SIN_SAL FROM EMP_20BRS1193;

EMPNAME                          SIN_SAL
------------------------------ ----------
Khushi Dutta                    -.0714519
Mayuram Das                    -.23679995
Aakash Deshpande                .975636499
Rudra Chad                      .522392577
Sumati Balay                    .665703738
Nilima Deol                     .975636499
Pran Bhalla                      -.6386019
Akansha DAlia                  -.40066342
Rahul Singh                     -.0714519
Jasleen Kaur                   -.99600728
Atharva Kumar                   .035748798

EMPNAME                          SIN_SAL
------------------------------ ----------
Harsh Nigam                      -.6386019
Ravi Dixit                      .372866558
Anisha Nanda                     .20445998
Arjun Ravel                    -.40066342
Navin Johal                     .522392577
Bhuvana Narayan                 .522392577
Shekhar Parsa                   .522392577
Akhil Tara                      .843229887
Ishita Mohanty                  .522392577
Gaurav Mishra                  -.23679995

21 rows selected.
```

SELECT EMPNAME, COS(SALARY) AS COS_SAL FROM EMP_20BRS1193;

```
SQL> SELECT EMPNAME, COS(SALARY) AS COS_SAL FROM EMP_20BRS1193;

EMPNAME                          COS_SAL
------------------------------ ----------
Khushi Dutta                    .997444047
Mayuram Das                    -.97155843
Aakash Deshpande               -.21939331
Rudra Chad                      .852705105
Sumati Balay                   -.74621614
Nilima Deol                    -.21939331
Pran Bhalla                     .769537276
Akansha DAlia                  -.91622531
Rahul Singh                     .997444047
Jasleen Kaur                   -.08927204
Atharva Kumar                  -.99936081

EMPNAME                          COS_SAL
------------------------------ ----------
Harsh Nigam                     .769537276
Ravi Dixit                     -.92788498
Anisha Nanda                   -.97887492
Arjun Ravel                    -.91622531
Navin Johal                     .852705105
Bhuvana Narayan                 .852705105
Shekhar Parsa                   .852705105
Akhil Tara                     -.53755312
Ishita Mohanty                  .852705105
Gaurav Mishra                  -.97155843

21 rows selected.
```

SELECT EMPNAME, LN(SALARY) AS LN_SAL FROM EMP_20BRS1193;

```
SQL> SELECT EMPNAME, LN(SALARY) AS LN_SAL FROM EMP_20BRS1193;

EMPNAME                          LN_SAL
------------------------------ ----------
Khushi Dutta                   12.2060726
Mayuram Das                    12.2548628
Aakash Deshpande               12.4684369
Rudra Chad                     12.3013828
Sumati Balay                   12.5425449
Nilima Deol                    12.4684369
Pran Bhalla                    12.1007121
Akansha DAlia                  12.0137008
Rahul Singh                    12.2060726
Jasleen Kaur                   12.4292162
Atharva Kumar                  11.5129255

EMPNAME                          LN_SAL
------------------------------ ----------
Harsh Nigam                    12.1007121
Ravi Dixit                     12.1547794
Anisha Nanda                   12.1034861
Arjun Ravel                    12.0137008
Navin Johal                    12.3013828
Bhuvana Narayan                12.3013828
Shekhar Parsa                  12.3013828
Akhil Tara                     12.0435537
Ishita Mohanty                 12.3013828
Gaurav Mishra                  12.2548628

21 rows selected.
```

SELECT EMPNAME, TAN(SALARY) AS TAN_SAL FROM EMP_20BRS1193;

```
SQL> SELECT EMPNAME, TAN(SALARY) AS TAN_SAL FROM EMP_20BRS1193;

EMPNAME                          TAN_SAL
------------------------------ ----------
Khushi Dutta                   -.07163499
Mayuram Das                     .24373207
Aakash Deshpande               -4.4469748
Rudra Chad                     .612629823
Sumati Balay                   -.89210578
Nilima Deol                    -4.4469748
Pran Bhalla                     -.8298518
Akansha DAlia                  .437297915
Rahul Singh                    -.07163499
Jasleen Kaur                   11.1569904
Atharva Kumar                  -.03577166

EMPNAME                          TAN_SAL
------------------------------ ----------
Harsh Nigam                     -.8298518
Ravi Dixit                     -.40184567
Anisha Nanda                   -.20887243
Arjun Ravel                    .437297915
Navin Johal                    .612629823
Bhuvana Narayan                .612629823
Shekhar Parsa                  .612629823
Akhil Tara                     -1.5686448
Ishita Mohanty                 .612629823
Gaurav Mishra                   .24373207

21 rows selected.
```

3. Extract only the first 5 characters of the employee names.

SELECT SUBSTR(EMPNAME, 1, 5) AS SUBSTR_NAME FROM EMP_20BRS1193;

```
SQL> SELECT SUBSTR(EMPNAME, 1, 5) AS SUBSTR_NAME FROM EMP_20BRS1193;

SUBSTR_NAME
--------------------
Khush
Mayur
Aakas
Rudra
Sumat
Nilim
Pran
Akans
Rahul
Jasle
Athar

SUBSTR_NAME
--------------------
Harsh
Ravi
Anish
Arjun
Navin
Bhuva
Shekh
Akhil
Ishit
Gaura

21 rows selected.
```

4. Apply any other five string built in function to ‘name’ attribute of employee table

SELECT EMPNAME, CONCAT(EMPNAME, ' Employee') AS NAME FROM EMP_20BRS1193;

SELECT EMPNAME, INSTR(EMPNAME, 'a') AS NAME FROM EMP_20BRS1193;

SELECT EMPNAME, LENGTH(EMPNAME) AS NAME FROM EMP_20BRS1193;

SELECT EMPNAME, REPLACE(EMPNAME, 'a', 'X') AS NAME FROM EMP_20BRS1193;

SELECT EMPNAME, REVERSE(EMPNAME) AS NAME FROM EMP_20BRS1193;

```
SQL> SELECT EMPNAME, CONCAT(EMPNAME, ' Employee') AS NAME FROM EMP_20BRS1193;

EMPNAME                        NAME
------------------------------ ----------------------------------------
Khushi Dutta                   Khushi Dutta Employee
Mayuram Das                    Mayuram Das Employee
Aakash Deshpande               Aakash Deshpande Employee
Rudra Chad                     Rudra Chad Employee
Sumati Balay                   Sumati Balay Employee
Nilima Deol                    Nilima Deol Employee
Pran Bhalla                    Pran Bhalla Employee
Akansha DAlia                  Akansha DAlia Employee
Rahul Singh                    Rahul Singh Employee
Jasleen Kaur                   Jasleen Kaur Employee
Atharva Kumar                  Atharva Kumar Employee

EMPNAME                        NAME
------------------------------ ----------------------------------------
Harsh Nigam                    Harsh Nigam Employee
Ravi Dixit                     Ravi Dixit Employee
Anisha Nanda                   Anisha Nanda Employee
Arjun Ravel                    Arjun Ravel Employee
Navin Johal                    Navin Johal Employee
Bhuvana Narayan                Bhuvana Narayan Employee
Shekhar Parsa                  Shekhar Parsa Employee
Akhil Tara                     Akhil Tara Employee
Ishita Mohanty                 Ishita Mohanty Employee
Gaurav Mishra                  Gaurav Mishra Employee

21 rows selected.
```

```
SQL> SELECT EMPNAME, INSTR(EMPNAME, 'a') AS NAME FROM EMP_20BRS1193;

EMPNAME                             NAME
------------------------------ ----------
Khushi Dutta                            12
Mayuram Das                              2
Aakash Deshpande                         2
Rudra Chad                               5
Sumati Balay                             4
Nilima Deol                              6
Pran Bhalla                              3
Akansha DAlia                            3
Rahul Singh                              2
Jasleen Kaur                             2
Atharva Kumar                            4

EMPNAME                             NAME
------------------------------ ----------
Harsh Nigam                              2
Ravi Dixit                               2
Anisha Nanda                             6
Arjun Ravel                              8
Navin Johal                              2
Bhuvana Narayan                          5
Shekhar Parsa                            6
Akhil Tara                               8
Ishita Mohanty                           6
Gaurav Mishra                            2

21 rows selected.
```

```
SQL> SELECT EMPNAME, LENGTH(EMPNAME) AS NAME FROM EMP_20BRS1193;

EMPNAME                              NAME
------------------------------ ----------
Khushi Dutta                           12
Mayuram Das                            11
Aakash Deshpande                       16
Rudra Chad                             10
Sumati Balay                           12
Nilima Deol                            11
Pran Bhalla                            11
Akansha DAlia                          13
Rahul Singh                            11
Jasleen Kaur                           12
Atharva Kumar                          13

EMPNAME                              NAME
------------------------------ ----------
Harsh Nigam                            11
Ravi Dixit                             10
Anisha Nanda                           12
Arjun Ravel                            11
Navin Johal                            11
Bhuvana Narayan                        15
Shekhar Parsa                          13
Akhil Tara                             10
Ishita Mohanty                         14
Gaurav Mishra                          13

21 rows selected.
```

```
SQL> SELECT EMPNAME, REPLACE(EMPNAME, 'a', 'X') AS NAME FROM EMP_20BRS1193;

EMPNAME                        NAME
------------------------------ ------------------------------
Khushi Dutta                   Khushi DuttX
Mayuram Das                    MXyurXm DXs
Aakash Deshpande               AXkXsh DeshpXnde
Rudra Chad                     RudrX ChXd
Sumati Balay                   SumXti BXlXy
Nilima Deol                    NilimX Deol
Pran Bhalla                    PrXn BhXllX
Akansha DAlia                  AkXnshX DAliX
Rahul Singh                    RXhul Singh
Jasleen Kaur                   JXsleen KXur
Atharva Kumar                  AthXrvX KumXr

EMPNAME                        NAME
------------------------------ ------------------------------
Harsh Nigam                    HXrsh NigXm
Ravi Dixit                     RXvi Dixit
Anisha Nanda                   AnishX NXndX
Arjun Ravel                    Arjun RXvel
Navin Johal                    NXvin JohXl
Bhuvana Narayan                BhuvXnX NXrXyXn
Shekhar Parsa                  ShekhXr PXrsX
Akhil Tara                     Akhil TXrX
Ishita Mohanty                 IshitX MohXnty
Gaurav Mishra                  GXurXv MishrX

21 rows selected.
```

```
SQL> SELECT EMPNAME, REVERSE(EMPNAME) AS NAME FROM EMP_20BRS1193;

EMPNAME                        NAME
------------------------------ ------------------------------
Khushi Dutta                   attuD ihsuhK
Mayuram Das                    saD maruyaM
Aakash Deshpande               ednaphseD hsakaA
Rudra Chad                     dahC arduR
Sumati Balay                   yalaB itamuS
Nilima Deol                    loeD amiliN
Pran Bhalla                    allahB narP
Akansha DAlia                  ailAD ahsnakA
Rahul Singh                    hgniS luhaR
Jasleen Kaur                   ruaK neelsaJ
Atharva Kumar                  ramuK avrahtA

EMPNAME                        NAME
------------------------------ ------------------------------
Harsh Nigam                    magiN hsraH
Ravi Dixit                     tixiD ivaR
Anisha Nanda                   adnaN ahsinA
Arjun Ravel                    levaR nujrA
Navin Johal                    lahoJ nivaN
Bhuvana Narayan                nayaraN anavuhB
Shekhar Parsa                  asraP rahkehS
Akhil Tara                     araT lihkA
Ishita Mohanty                 ytnahoM atihsI
Gaurav Mishra                  arhsiM varuaG

21 rows selected.
```

5. Determine the max and min salary and rename the column as max_salary and min_salary.

SELECT MAX(SALARY) AS MAX_SALARY, MIN(SALARY) AS MIN_SALARY FROM EMP_20BRS1193;

```
SQL> SELECT MAX(SALARY) AS MAX_SALARY, MIN(SALARY) AS MIN_SALARY FROM EMP_20BRS1193;

MAX_SALARY MIN_SALARY
---------- ----------
    280000     100000
```

6. Display the month name of date “14-jul-15” in number.

SELECT MONTHS_BETWEEN ('14-Jul-15', '14-Dec-14') FROM DUAL;

```
SQL> SELECT MONTHS_BETWEEN ('14-Jul-15', '14-Dec-14') FROM DUAL;

MONTHS_BETWEEN('14-JUL-15','14-DEC-14')
---------------------------------------
                                      7
```

7. Display the Dob of all employees in the format “dd-mm-yy”.

SELECT EMPNAME, TO_CHAR(DOB, 'DD-MM-YY') AS DOB FROM EMP_20BRS1193;

```
SQL> SELECT EMPNAME, TO_CHAR(DOB, 'DD-MM-YY') AS DOB FROM EMP_20BRS1193;

EMPNAME                        DOB
------------------------------ --------
Khushi Dutta                   08-08-95
Mayuram Das                    08-09-91
Aakash Deshpande               08-12-85
Rudra Chad                     08-02-97
Sumati Balay                   08-04-79
Nilima Deol                    08-10-86
Pran Bhalla                    08-09-89
Akansha DAlia                  08-12-98
Rahul Singh                    08-09-94
Jasleen Kaur                   08-11-88
Atharva Kumar                  08-10-91

EMPNAME                        DOB
------------------------------ --------
Harsh Nigam                    08-06-93
Ravi Dixit                     08-08-91
Anisha Nanda                   08-10-90
Arjun Ravel                    08-03-96
Navin Johal                    08-05-93
Bhuvana Narayan                08-02-95
Shekhar Parsa                  08-06-90
Akhil Tara                     08-08-91
Ishita Mohanty                 08-04-89
Gaurav Mishra                  08-10-91

21 rows selected.
```

8. Display the date two months after the Dob of employees.

SELECT EMPNAME, DOB, ADD_MONTHS(DOB, 2) AS TWO_MONTH FROM EMP_20BRS1193;

```
SQL> SELECT EMPNAME, DOB, ADD_MONTHS(DOB, 2) AS TWO_MONTH FROM EMP_20BRS1193;

EMPNAME                        DOB       TWO_MONTH
------------------------------ --------- ---------
Khushi Dutta                   08-AUG-95 08-OCT-95
Mayuram Das                    08-SEP-91 08-NOV-91
Aakash Deshpande               08-DEC-85 08-FEB-86
Rudra Chad                     08-FEB-97 08-APR-97
Sumati Balay                   08-APR-79 08-JUN-79
Nilima Deol                    08-OCT-86 08-DEC-86
Pran Bhalla                    08-SEP-89 08-NOV-89
Akansha DAlia                  08-DEC-98 08-FEB-99
Rahul Singh                    08-SEP-94 08-NOV-94
Jasleen Kaur                   08-NOV-88 08-JAN-89
Atharva Kumar                  08-OCT-91 08-DEC-91

EMPNAME                        DOB       TWO_MONTH
------------------------------ --------- ---------
Harsh Nigam                    08-JUN-93 08-AUG-93
Ravi Dixit                     08-AUG-91 08-OCT-91
Anisha Nanda                   08-OCT-90 08-DEC-90
Arjun Ravel                    08-MAR-96 08-MAY-96
Navin Johal                    08-MAY-93 08-JUL-93
Bhuvana Narayan                08-FEB-95 08-APR-95
Shekhar Parsa                  08-JUN-90 08-AUG-90
Akhil Tara                     08-AUG-91 08-OCT-91
Ishita Mohanty                 08-APR-89 08-JUN-89
Gaurav Mishra                  08-OCT-91 08-DEC-91

21 rows selected.
```

9. Display the last date of that month in “05-Oct-15”.

SELECT LAST_DAY('05-OCT-15') FROM DUAL;

```
SQL> SELECT LAST_DAY('05-OCT-15') FROM DUAL;

LAST_DAY(
---------
31-OCT-15
```

10. Display the rounded date in the year format, month format, day format

SELECT EXTRACT (DAY FROM SYSDATE) FROM DUAL;

SELECT EXTRACT (MONTH FROM SYSDATE) FROM DUAL;

SELECT EXTRACT (YEAR FROM SYSDATE) FROM DUAL;

```
SQL> SELECT EXTRACT (DAY FROM SYSDATE) FROM DUAL;

EXTRACT(DAYFROMSYSDATE)
-----------------------
                     22
```

```
SQL> SELECT EXTRACT (MONTH FROM SYSDATE) FROM DUAL;

EXTRACT(MONTHFROMSYSDATE)
-------------------------
                        9
```

```
SQL> SELECT EXTRACT (YEAR FROM SYSDATE) FROM DUAL;

EXTRACT(YEARFROMSYSDATE)
------------------------
                    2021
```

11. Display the date 60 days before current date.

SELECT ADD_MONTHS(SYSDATE, -2) AS SIXTYDAYS FROM DUAL;

```
SQL> SELECT ADD_MONTHS(SYSDATE, -2) AS SIXTYDAYS FROM DUAL;

SIXTYDAYS
---------
22-JUL-21
```

12. Display the names and dob of all employees who were born in August.

SELECT EMPNAME, DOB FROM EMP_20BRS1193 WHERE INSTR(DOB, 'AUG') > 0;

```
SQL> SELECT EMPNAME, DOB FROM EMP_20BRS1193 WHERE INSTR(DOB, 'AUG') > 0;

EMPNAME                        DOB
------------------------------ ---------
Khushi Dutta                   08-AUG-95
Ravi Dixit                     08-AUG-91
Akhil Tara                     08-AUG-91
```

13. List out the employee names who will celebrate their birthdays during current month.

SELECT EMPNAME, DOB FROM EMP_20BRS1193 WHERE INSTR(DOB, 'SEP') > 0;

```
SQL> SELECT EMPNAME, DOB FROM EMP_20BRS1193 WHERE INSTR(DOB, 'SEP') > 0;

EMPNAME                        DOB
------------------------------ ---------
Mayuram Das                    08-SEP-91
Pran Bhalla                    08-SEP-89
Rahul Singh                    08-SEP-94
```

14. List all female employees who were born in April

SELECT EMPNAME, DOB FROM EMP_20BRS1193 WHERE INSTR(DOB, 'APR') > 0 AND GENDER = 'F';

```
SQL> SELECT EMPNAME, DOB FROM EMP_20BRS1193 WHERE INSTR(DOB, 'APR') > 0 AND GENDER = 'F';


EMPNAME                        DOB
------------------------------ ---------
Sumati Balay                   08-APR-79
Ishita Mohanty                 08-APR-89
```

15. What is the difference between maximum and minimum salaries of employees in the organization?

SELECT MAX(SALARY) - MIN(SALARY) AS RANGE_ FROM EMP_20BRS1193;

```
SQL> SELECT MAX(SALARY) - MIN(SALARY) AS RANGE_ FROM EMP_20BRS1193;

    RANGE_
----------
    180000
```

16. Display number of employees working in each department and their department name.

SELECT DEPTNAME, COUNT(*) AS CNT FROM EMP_20BRS1193 GROUP BY DEPTNAME ORDER BY CNT DESC;

```
SQL> SELECT DEPTNAME, COUNT(*) AS CNT FROM EMP_20BRS1193 GROUP BY DEPTNAME ORDER BY CNT DESC;


DEPTNAME                       CNT
------------------- ----------
Sales                           6
Finance                         5
Product Design                  4
Market Research                 3
Operations                      2
Human Resource                  1

6 rows selected.
```

17. Display total salary spent for employees.

SELECT SUM(SALARY) AS TOTAL FROM EMP_20BRS1193;

```
SQL> SELECT SUM(SALARY) AS TOTAL FROM EMP_20BRS1193;

     TOTAL
----------
   4300500
```

18. Display total salary spent for each job category.

SELECT JOB, SUM(SALARY) AS TOTAL FROM EMP_20BRS1193 GROUP BY JOB ORDER BY TOTAL DESC;

```
SQL> SELECT JOB, SUM(SALARY) AS TOTAL FROM EMP_20BRS1193 GROUP BY JOB ORDER BY TOTAL DESC;

JOB                              TOTAL
------------------------------ ----------
Developer                      890000
Analyst                        850000
Manager                        800000
Salesman                       690500
Accountant                     540000
Designer                       430000
Human Resource                 100000

7 rows selected.
```

19. Display lowest paid employee details under each manager.

SELECT MANAGER_NO, MIN(SALARY) FROM EMP_20BRS1193 GROUP BY MANAGER_NO;

```
SQL> SELECT MANAGER_NO, MIN(SALARY) FROM EMP_20BRS1193 GROUP BY MANAGER_NO;

MANAGER_NO MIN(SALARY)
---------- -----------
         1      100000
         2      165000
         3      170000
```

20. Find how many job titles are available in employee table.

SELECT COUNT(DISTINCT (JOB)) FROM EMP_20BRS1193;

```
SQL> SELECT COUNT(DISTINCT (JOB)) FROM EMP_20BRS1193;

COUNT(DISTINCT(JOB))
--------------------
                   7
```