INBUILT FUNCTIONS IN SQL

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AIM:

To implement and execute various sql functions in Oracle.

CHARACTER FUNCTIONS:

```
SQL> SELECT ASCII('A') FROM DUAL;

ASCII('A')
----------
        65

SQL> SELECT CHR(66),CHR(67) FROM DUAL;

C C
- -
B C

SQL> SELECT CONCAT('Sql',' Plus') FROM DUAL;

CONCAT('
--------
Sql Plus

SQL> SELECT INITCAP('rishal') FROM DUAL;

INITCA
------
Rishal
```

```
SQL> SELECT INSTR('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2, INSTR('Character','a',-1,2) POS3, INSTR('character','c',1,3) POS4
  2  FROM DUAL;

      POS1       POS2       POS3       POS4
---------- ---------- ---------- ----------
         4          9          3          0

SQL> SELECT LENGTH('Database Management Systems') AS LEN
  2  FROM DUAL;

       LEN
----------
        27

SQL> SELECT UPPER('COMPScience') FROM DUAL;

UPPER('COMP
-----------
COMPSCIENCE

SQL> SELECT LOWER('SQL') FROM DUAL;

LOW
---
sql
```

```
SQL> SELECT LPAD ('DBMS',10,'#') FROM DUAL;

LPAD('DBMS
----------
######DBMS

SQL> SELECT RPAD ('DBMS',10,'#') FROM DUAL;

RPAD('DBMS
----------
DBMS######

SQL> SELECT LTRIM ('      HELLO') FROM DUAL;

LTRIM
-----
HELLO
```

```
SQL> SELECT RTRIM ('HELLO    ') FROM DUAL;

RTRIM
-----
HELLO

SQL> SELECT TRIM ('   HELLO    ') TRIM1, TRIM('HELLO  ') TRIM2, TRIM ('   HELLO') TRIM3 FROM DUAL;

TRIM1 TRIM2 TRIM3
----- ----- -----
HELLO HELLO HELLO

SQL> SELECT REPLACE ('FUNCTION','FUNC','SOLU') FROM DUAL;

REPLACE(
--------
SOLUTION
```

ESSENTIAL NUMERIC FUNCTIONS:

```
SQL> SELECT ABS(-25) FROM DUAL;

  ABS(-25)
----------
        25

SQL> SELECT ACOS(.5) FROM DUAL;

  ACOS(.5)
----------
1.04719755

SQL> SELECT ASIN(.5) FROM DUAL;

  ASIN(.5)
----------
.523598776
```

```
SQL> SELECT ATAN (0.5) FROM DUAL;

 ATAN(0.5)
----------
.463647609

SQL> SELECT CEIL (239.5) FROM DUAL;

CEIL(239.5)
----------
       240

SQL> SELECT CEIL (220.4) FROM DUAL;

CEIL(220.4)
----------
       221

SQL> SELECT FLOOR(30.9) FROM DUAL;

FLOOR(30.9)
----------
        30

SQL> SELECT MOD (10,3) FROM DUAL;

 MOD(10,3)
----------
         1

SQL> SELECT POWER(4,2) FROM DUAL;

POWER(4,2)
----------
        16
```

```
SQL> SELECT ROUND(25.3), ROUND(25.5) FROM DUAL;

ROUND(25.3) ROUND(25.5)
----------- -----------
         25          26

SQL> SELECT TRUNC(12.75,1) FROM DUAL;

TRUNC(12.75,1)
--------------
          12.7
```

DATE AND TIME FUNCTIONS:

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

SYSDATE   ADD_MONTH
--------- ---------
15-FEB-22 15-APR-22

SQL> SELECT NEXT_DAY('31-AUG-22','SUN') FROM DUAL;

NEXT_DAY(
---------
04-SEP-22

SQL> SELECT SYSDATE, ROUND(SYSDATE,'MM'),ROUND(SYSDATE,'YYYY') FROM DUAL;

SYSDATE   ROUND(SYS ROUND(SYS
--------- --------- ---------
15-FEB-22 01-FEB-22 01-JAN-22

SQL> SELECT SYSDATE, TRUNC(SYSDATE,'MM'),TRUNC(SYSDATE,'YYYY') FROM DUAL;

SYSDATE   TRUNC(SYS TRUNC(SYS
--------- --------- ---------
15-FEB-22 01-FEB-22 01-JAN-22
```

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

SYSDATE        YEAR       DAY
---------  ---------- ----------
15-FEB-22      2022        15

SQL> SELECT MONTHS_BETWEEN('10-AUG-2022','16-NOV-2022');
SELECT MONTHS_BETWEEN('10-AUG-2022','16-NOV-2022')
                                                 *
ERROR at line 1:
ORA-00923: FROM keyword not found where expected


SQL> SELECT MONTHS_BETWEEN('10-AUG-2022','16-NOV-2022') FROM DUAL;

MONTHS_BETWEEN('10-AUG-2022','16-NOV-2022')
-----------------------------------------
                               -3.1935484

SQL> SELECT MONTHS_BETWEEN('10-AUG-2022','16-JAN-2022') FROM DUAL;

MONTHS_BETWEEN('10-AUG-2022','16-JAN-2022')
-----------------------------------------
                               6.80645161

SQL> SELECT MONTHS_BETWEEN('10-AUG-2022','10-JAN-2022') FROM DUAL;

MONTHS_BETWEEN('10-AUG-2022','10-JAN-2022')
-----------------------------------------
                                        7

SQL> _
```

RESULT:

The given SQL functions were successfully implemented and executed in Oracle.