\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**EXERCISE - 1**

**1: Basic SELECT Retrieve the current date and time using the DUAL table.**

-- 'SYSTIMESTAMP' and 'TO\_CHAR' functions is correct and will return the current timestamp in the format 'DD-MON-YYYY HH24:MI:SS'.--

  query: SELECT TO\_CHAR(systimestamp,'DD-MON-YYYY HH24:MI:SS') from dual;

  output: 17-AUG-2023 10:52:22

==========================================================================

**2: Arithmetic Operations Calculate the result of 15 multiplied by 3 using the DUAL table.**

         query: SELECT 15 \* 3 AS result FROM DUAL;

         output: 45

==========================================================================

**3: String Concatenation - Retrieve a string that concatenates your first name and last name, separated by a space.**

--   first create table student and insert a data –

          drop table student purge;

          CREATE TABLE student(Id integer PRIMARY KEY,

                               first\_name varchar2(30) not null,

                               last\_name varchar2(30) not null);

        -- insert data--

        INSERT INTO student VALUES(1,'rahul','kanjariya');

        INSERT INTO student VALUES(2,'jay','nakum');

        INSERT INTO student VALUES(3,'hardik','kanjariya');

        INSERT INTO student VALUES(4,'abhay','rathod');

        select \* from student;

        output

        ID  FIRST\_NAME  LAST\_NAME

        --------------------------

        1   rahul       kanjariya

        2   jay         nakum

        3   hardik      kanjariya

  4   abhay       rathod

--String Concatenation first name and last name --

     query: SELECT first\_name || ' ' || last\_name AS full\_name FROM users;

output:

            FULL\_NAME

 ------------------

        rahul kanjariya

        hardik kanjariya

        jay nakum

        abhay rathod

==========================================================================

**4: Data Type Conversion Convert the string "123" to a number using the DUAL table.**

 --- 'to\_NUMBER ()' function to convert a string to a number from dual table ---

     query : SELECT TO\_NUMBER('123') FROM dual;

     output : 123

==========================================================================

**5: Date Manipulation Retrieve the date that is 7 days from today.**

    query : SELECT SYSDATE + 7 FROM dual;

    output : 24-AUG-23

==========================================================================

**6: Mathematical Functions Calculate the square root of 144 using the DUAL table.**

 --'SQRT ()' function to calculate the square root of a number. When using the DUAL table--

    query : SELECT SQRT(144) FROM dual;

    output : 12

==========================================================================

**7: String Functions Retrieve your last name in uppercase.**

   --'UPPER ()' Retrieve your last name in uppercase.--

   --   first create table student and insert a data –

          drop table student1 purge;

          CREATE TABLE student1(Id integer PRIMARY KEY,

                               first\_name varchar2(30) not null,

                               last\_name varchar2(30) not null);

        -- insert data–

        INSERT INTO student1 VALUES(1,'rahul','kanjariya');

        INSERT INTO student1 VALUES(2,'jay','nakum');

        INSERT INTO student1 VALUES(3,'hardik','kanjariya');

        INSERT INTO student1 VALUES(4,'abhay','rathod');

        select \* from student1;

   output :

        ID  FIRST\_NAME  LAST\_NAME

        --------------------------

        1   rahul       kanjariya

        2   jay         nakum

        3   hardik      kanjariya

        4   abhay       rathod

 --last name in uppercase—--

        query : SELECT UPPER(last\_name) AS car FROM student1;

        output : UPPER(LAST\_NAME)

                -----------------

                 KANJARIYA

                 NAKUM

                 KANJARIYA

                 RATHOD

==========================================================================

**8: Logical Operations Find out if 20 is greater than 10 using the DUAL table**.

 query : SELECT CASE WHEN 20 > 10 THEN '20 is greater than 10' ELSE '20 is   not greater than 10'

     END FROM DUAL;

    output : 20 is greater than 10

==========================================================================

**9: Case Statement Retrieve "Even" if a given number is even, and "Odd" if it's odd.**

        --first create table emp ----

        CREATE TABLE emp(emp\_num integer PRIMARY KEY,

                         first\_name varchar2(30) not null,

                         serial\_num number(2) not null);

        -- insert data--

        INSERT INTO emp VALUES(101,'rahul',1);

        INSERT INTO emp VALUES(102,'jay',2);

        INSERT INTO emp VALUES(103,'hardik',3);

        INSERT INTO emp VALUES(104,'abhay',4);

        select \* from emp;

   EMP\_NUM  FIRST\_NAME SERIAL\_NUM

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

         101        rahul        1

         102        jay          2

         103        hardik       3

         104        abhay        4

        --"Even" if a given number is even, and "Odd" if it's odd --

query :SELECT  emp\_num CASE WHEN MOD(emp\_num, 2) = 0 THEN 'Even' ELSE 'Odd' END AS result FROM emp;

output : EMP\_NUM   Even-Odd

         ---------------------

             101       Odd

             102       Even

             103       Odd

             104       Even

==========================================================================

**10: Null Values Check if concatenating a null value with any string results in a null or the string itself.**

      --first create table emp ----

    CREATE TABLE customer(id integer PRIMARY KEY,

                         first\_name varchar2(30),

                         last\_name varchar2(30));

     -- insert data--

        INSERT INTO customer VALUES(1,'rahul','kanjariya');

        INSERT INTO customer VALUES(2,'','jay');

        INSERT INTO customer VALUES(3,'hardik',);

        INSERT INTO customer VALUES(4,'abhay','');

        select \* from customer;

        ID  FIRST\_NAME  LAST\_NAME

        -------------------------

        1   rahul       kanjariya

        2    -          jay

        3   hardik       -

        4   abhay        -

        --concatenating a null value with any string results in a null or the string itself--

       query: SELECT CONCAT(first\_name,last\_name) AS name FROM customer;

       output : NAME

                rahulkanjariya

                jay

                hardik

                abhay

        --dual table --

        query: SELECT NVL(NULL, '') || 'Hello' AS Result FROM dual;

        output: Hello

==========================================================================

**11: Aggregate Functions Calculate the sum of the first 10 positive integers using the DUAL table.**

    query: SELECT sum(level) AS FROM DUAL CONNECT BY LEVEL <=10;

    output : 55

==========================================================================

**12: Date Functions Retrieve the day of the week for a specific date.**

    --   day : sunday monday tuesday wednesday thursday friday saturday

    --         1       2       3       4           5       6       7

        -- to find a day of week  2023-08-19 output(7) weekend —

    query : SELECT TO\_CHAR(DATE '2023-08-17', 'D') FROM DUAL;

    output : 5

==========================================================================

**13: Number Functions Round the number 6.78 to the nearest integer using the DUAL table.**

    -- 'ROUND' function to round a number to the nearest integer. --

    query: SELECT ROUND(6.78) rounded\_value FROM dual;

    output : 7

==========================================================================

**14: String Length Retrieve the length of your first name**.

   --find a length in a length() function--

   --first create table emp ----

        CREATE TABLE employees(emp\_num integer PRIMARY KEY,

                         first\_name varchar2(30) not null);

        -- insert data--

* INSERT INTO employees VALUES(1,'rahul');

        INSERT INTO employees VALUES(2,'jay');

        INSERT INTO employees VALUES(3,'hardik');

        INSERT INTO employees VALUES(4,'abhay');

        EMP\_NUM     FIRST\_NAME

        --------------------------

          1          rahul

          2          jay

          3          hardik

          4          abhay

        query : SELECT emp\_num, first\_name, LENGTH(first\_name) as length FROM employees;

        output : EMP\_NUM    FIRST\_NAME  LENGTH

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

                    1         rahul        5

                    2         jay          3

                    3         hardik       6

                    4         abhay        5

==========================================================================

**15: Substring Retrieve the first 3 characters of a given string.**

       query : SELECT SUBSTRING('rahul kanjariya', 1, 3) AS ExtractString;

       output : rah

==========================================================================