

Assignment 10

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Batch – 3ENC1

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PL/SQL Lab Assignments-2

1. WAP to check whether number is odd or even.

```
1 DECLARE
2 num NUMBER:=123;
3 BEGIN
4 IF MOD(num,2)=0
5 THEN
6 dbms_output.put_line('Even');
7 ELSE
8 dbms_output.put_line('Odd');
9 END IF;
10 END;
```

Statement processed.

Odd

2. WAP to find out the Fibonacci series

SQL Worksheet

```
1 DECLARE
2 a NUMBER := 0;
3 b NUMBER := 1;
4 temp NUMBER;
5 n NUMBER := 7;
6 i NUMBER;
7 BEGIN
8 dbms_output.put_line('Fibonacci series:');
9 dbms_output.put_line(a);
10 dbms_output.put_line(b);
11 FOR i in 2..n
12 LOOP
13 temp:= a + b;
14 a := b;
15 b := temp;
16 dbms_output.put_line(temp);
17 END LOOP;
18 END;
```

Statement processed.

Fibonacci series:

0

1

1

2

3

5

8

13

3. WAP to reverse a string

```
1 DECLARE
2     str VARCHAR(6) := 'RanDom';
3     len NUMBER;
4     str1 VARCHAR(20);
5 BEGIN
6     len := Length(str);
7     FOR i IN REVERSE 1.. len LOOP
8         str1 := str1 || Substr(str, i, 1);
9     END LOOP;
10    dbms_output.Put_line('Reverse of string is : ' || str1);
11 END;
```

Statement processed.

Reverse of string is :moDnaR

4. WAP to check whether a number is a prime number or not?

SQL Worksheet

```
1 DECLARE
2     n NUMBER;
3     i NUMBER;
4     temp NUMBER;
5
6 BEGIN
7     n := 71;
8     i := 2;
9     temp := 1;
10    FOR i in 2..n/2
11        LOOP
12            IF MOD(n, i) = 0
13                THEN
14                    temp := 0;
15                    EXIT;
16                END IF;
17        END LOOP;
18
19    IF temp = 1
20        THEN
21        dbms_output.put_line('true');
22    ELSE
23        dbms_output.put_line('false');
24    END IF;
25 END;
```

Statement processed.

true

5. WAP to check a number is palindrome or not?

SQL Worksheet

```
1 DECLARE
2     n NUMBER;
3     m NUMBER;
4     rev NUMBER:=0;
5     r NUMBER;
6 BEGIN
7     n:=3322112233;
8     m:=n;
9     WHILE n>0
10    LOOP
11        r:=MOD(n,10);
12        rev:=(rev*10)+r;
13        n:=trunc(n/10);
14    END LOOP;
15
16    IF m=rev
17    THEN
18        dbms_output.put_line('number is palindrome');
19    ELSE
20        dbms_output.put_line('number is not palindrome');
21    END IF;
22 END;
```

Statement processed.
number is palindrome

6. WAP to swap two Numbers

SQL Worksheet

```
1 DECLARE
2     a NUMBER;
3     b NUMBER;
4     temp NUMBER;
5
6 BEGIN
7     a:=17;
8     b:=23;
9
10    temp:=a;
11    a:=b;
12    b:=temp;
13    dbms_output.put_line('swapped values:');
14    dbms_output.put_line('a='||a||' b='||b);
15 END;
```

Statement processed.
swapped values:
a=23 b=17

7. Create a table Test with columns C1 and C2 as

C1	C2
2	4
1	3

WAP to fetch the second row (C1=1) from the Table Test. Further, insert a new row having (C1, C2) = (13, 15) into the same table if the value of C2=3, else insert (C1, C2) = (12, 11).

SQL Worksheet

```
1 CREATE TABLE TestTable(  
2 C1 INT,  
3 C2 INT);  
4 INSERT INTO TestTable VALUES (2,4);  
5 INSERT INTO TestTable VALUES (1,3);  
6 SELECT*FROM TestTable;  
7 DECLARE  
8 cursor cur  
9 IS  
10 SELECT*FROM TestTable  
11 WHERE C1=1;  
12 num1 INT;  
13 num2 INT;  
14 BEGIN  
15 OPEN cur;  
16  
17 FETCH cur INTO num1,num2;  
18 dbms_output.put_line('Row :'||num1||','||num2);  
19 IF(num2=3) THEN  
20 INSERT INTO TestTable VALUES(13,15);  
21 ELSE  
22 INSERT INTO TestTable VALUES(12,11);  
23 END IF;  
24 close cur;  
25 END;  
26 SELECT*FROM TestTable;
```

C1	C2
2	4
1	3

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```
7 DECLARE  
8 cursor cur  
9 IS  
10 SELECT*FROM TestTable  
11 WHERE C1=1;  
12 num1 INT;  
13 num2 INT;  
14 BEGIN  
15 OPEN cur;  
16  
17 FETCH cur INTO num1,num2;  
18 dbms_output.put_line('Row :'||num1||','||num2);  
19 IF(num2=3) THEN  
20 INSERT INTO TestTable VALUES(13,15);  
21 ELSE  
22 INSERT INTO TestTable VALUES(12,11);  
23 END IF;  
24 close cur;  
25 END;  
26 SELECT*FROM TestTable;
```

C1	C2
2	4
1	3
13	15
12	11

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4 rows selected.

8. WAP to insert records from one table (EMP1) to another (EMP2).

EMP1

Id	Name
1	AB
2	CD

EMP2

Id	Name

SQL Worksheet

```
1 CREATE TABLE emp1(  
2   Id INT,  
3   NAME VARCHAR(20)  
4 );  
5 CREATE TABLE emp2(  
6   Id INT,  
7   Name VARCHAR(20)  
8 );  
9 INSERT INTO emp1 VALUES  
10 (1,'AB');  
11 INSERT INTO emp1 VALUES  
12 (2,'CD');  
13 DECLARE  
14 BEGIN  
15 INSERT INTO emp2  
16 SELECT *  
17 FROM emp1;  
18 END;  
19 SELECT*FROM emp1;  
20 SELECT*FROM emp2;  
21
```

ID	NAME
1	AB
2	CD

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2 rows selected.

9. WAP to check whether a given character is letter or digit

SQL Worksheet

```
1 DECLARE  
2   get_ctr CHAR(1) := 'T';  
3 BEGIN  
4   IF ( get_ctr >= 'A'  
5     AND get_ctr <= 'Z' )  
6     OR ( get_ctr >= 'a'  
7     AND get_ctr <= 'z' ) THEN  
8     dbms_output.Put_line ('The given character is a letter');  
9   ELSE  
10    dbms_output.Put_line ('The given character is not a letter');  
11    IF get_ctr BETWEEN '0' AND '9' THEN  
12      dbms_output.Put_line ('The given character is a number');  
13    ELSE  
14      dbms_output.Put_line ('The given character is not a number');  
15    END IF;  
16  END IF;  
17 END;
```

Statement processed.

The given character is a letter