**WORKSHEET 5**

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**DOMAIN CAMP:** 16-01-2023 to 28-01-2023 **Section/Group:** DWWC-77

**Subject Name:** Database Management System

**1. PL/SQL program to check whether a number is positive, negative or zero.**

DECLARE

num1 NUMBER := 6;

BEGIN

IF num1 < 0 THEN

DBMS\_OUTPUT.PUT\_LINE ('The number '||num1||' is a negative number');

ELSIF num1 = 0 THEN

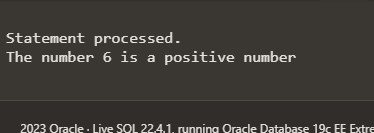
DBMS\_OUTPUT.PUT\_LINE ('The number '||num1||' is equal to zero');

ELSE

DBMS\_OUTPUT.PUT\_LINE ('The number '||num1||' is a positive number');

END IF;

END;

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**2. Write a program in PL/SQL to print the prime numbers between 1 to 50**

DECLARE

i NUMBER(3);

j NUMBER(3);

BEGIN

DBMS\_OUTPUT.PUT\_LINE('The prime numbers are:');

i := 2;

LOOP

j := 2;

LOOP EXIT WHEN( ( MOD(i, j) = 0 ) OR ( j = i ) );

j := j + 1;

END LOOP;

IF( j = i )THEN

DBMS\_OUTPUT.PUT\_LINE(i||' ');

END IF;

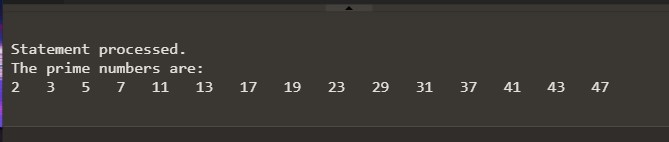
i := i + 1;

EXIT WHEN i = 50;

END LOOP;

END;

/



**3. Write a PL/SQL program for implementing while loop**

DECLARE

VAR1 NUMBER;

VAR2 NUMBER;

BEGIN

VAR1:=200;

VAR2:=1;

WHILE (VAR2<=10)

LOOP

DBMS\_OUTPUT.PUT\_LINE (VAR1\*VAR2);

VAR2:=VAR2+1;

END LOOP;

END;



**4. Write a program in PL/SQL to print 1st n numbers with a difference of 3 and starting from 1.**

DECLARE

n number:= 20;

i number:=1;

m number:=1;

BEGIN

DBMS\_OUTPUT.PUT\_LINE ('The first '||n||' numbers are: ');

DBMS\_OUTPUT.PUT\_LINE (i||' ');

FOR i IN 1..n-1 LOOP

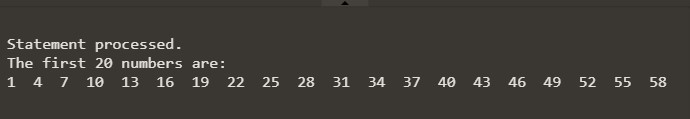
m:=m+3;

DBMS\_OUTPUT.PUT\_LINE(m||' ');

END LOOP;

END;

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**5. Program of cursor to fetch id, name and address from customers table.**

create table Employees(E\_id number, Name Varchar(20), Age number, Address Varchar(15), Salary number);

insert into Employees values(1,'Sam',23,'Allahabad',20000); insert into Employees values(2,'Mac',22,'Kanpur',22000); insert into Employees values(3,'Anna',24,'Noida',24000); insert into Employees values(4,'James',25,'Delhi',28000); insert into Employees values(5,'David',20,'Chandigarh',30000);

DECLARE

e\_id Employees.E\_id%type;

e\_name Employees.Name%type;

e\_addr Employees.Address%type;

CURSOR e\_Employees IS SELECT E\_id, Name, Address FROM Employees;

BEGIN

OPEN e\_Employees;

LOOP

FETCH e\_Employees INTO e\_id, e\_name, e\_addr;

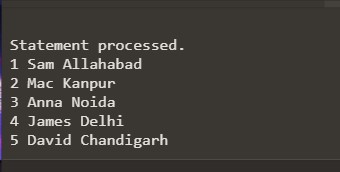
EXIT WHEN e\_Employees%notfound;

DBMS\_OUTPUT.PUT\_LINE(e\_id || ' ' || e\_name || ' ' || e\_addr);

END LOOP;

CLOSE e\_Employees;

END;



**6. Write a program in PL/SQL to retrieve the records from the employees table and display them using cursors**.

create table Employees(E\_id number, Name Varchar(20), Age number, Address Varchar(15), Salary number);

insert into Employees values(1,'Sam',23,'Allahabad',20000); insert into Employees values(2,'Mac',22,'Kanpur',22000); insert into Employees values(3,'Anna',24,'Noida',24000); insert into Employees values(4,'James',25,'Delhi',28000); insert into Employees values(5,'David',20,'Chandigarh',30000);

DECLARE

e\_id Employees.E\_id%type;

e\_name Employees.Name%type;

e\_addr Employees.Address%type;

e\_sal Employees.Salary%type;

CURSOR e\_Employees IS SELECT E\_id, Name, Address, Salary FROM Employees;

BEGIN

OPEN e\_Employees;

LOOP

FETCH e\_Employees INTO e\_id, e\_name, e\_addr, e\_sal;

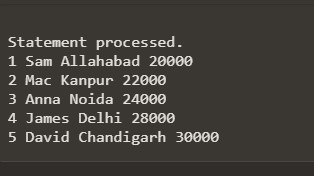
EXIT WHEN e\_Employees%notfound;

DBMS\_OUTPUT.PUT\_LINE(e\_id || ' ' || e\_name || ' ' || e\_addr || ' ' || e\_sal);

END LOOP;

CLOSE e\_Employees;

END;



**7. Write a program in PL/SQL to FETCH single record and single column from a table.**

create table Employees(E\_id number, Name Varchar(20), Age number, Address Varchar(15), Salary number);

insert into Employees values(1,'Sam',23,'Allahabad',20000); insert into Employees values(2,'Mac',22,'Kanpur',22000); insert into Employees values(3,'Anna',24,'Noida',24000); insert into Employees values(4,'James',25,'Delhi',28000); insert into Employees values(5,'David',20,'Chandigarh',30000);

DECLARE

emp\_name VARCHAR2(50);

CURSOR Employees\_name IS SELECT name FROM Employees WHERE Address = 'Chandigarh';

BEGIN

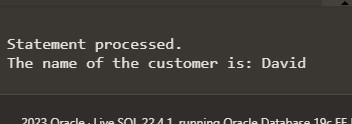
OPEN Employees\_name;

FETCH Employees\_name INTO emp\_name;

DBMS\_OUTPUT.PUT\_LINE('The name of the customer is: ' || emp\_name);

CLOSE Employees\_name;

END;



**8. Write a program in PL/SQL to FETCH more than one record and single column from a table.**

create table Employees(E\_id number, Name Varchar(20), Age number, Address Varchar(15), Salary number); insert into Employees values(1,'Sam',23,'Allahabad',20000); insert into Employees values(2,'Mac',22,'Kanpur',22000); insert into Employees values(3,'Anna',24,'Noida',24000); insert into Employees values(4,'James',25,'Delhi',28000); insert into Employees values(5,'David',20,'Chandigarh',30000);

DECLARE

emp\_name VARCHAR2(50); CURSOR Employees\_name IS

SELECT name

FROM Employees;

BEGIN

OPEN Employees\_name;

LOOP

FETCH Employees\_name

INTO emp\_name;

EXIT

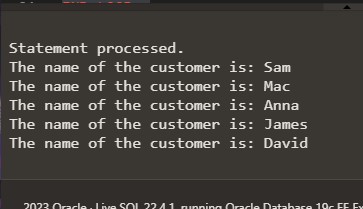
WHEN Employees\_name%NOTFOUND;

dbms\_output.put\_line('The name of the customer is: ' || emp\_name);

END LOOP;

CLOSE Employees\_name;

END;



**9. Write a program in PL/SQL to FETCH multiple records and more than one column.**

create table Employees(E\_id number, Name Varchar(20), Age number, Address Varchar(15), Salary number); insert into Employees values(1,'Sam',23,'Allahabad',20000); insert into Employees values(2,'Mac',22,'Kanpur',22000); insert into Employees values(3,'Anna',24,'Noida',24000); insert into Employees values(4,'James',25,'Delhi',28000); insert into Employees values(5,'David',20,'Chandigarh',30000);

DECLARE

emp\_rec Employees%ROWTYPE;

CURSOR Employees\_name IS

SELECT \*

FROM Employees;

BEGIN

OPEN Employees\_name;

LOOP

FETCH Employees\_name

INTO emp\_rec;

EXIT

WHEN Employees\_name%NOTFOUND;

dbms\_output.put\_line('The name of the customer is: ' || emp\_rec.name || ' Salary: '|| emp\_rec.salary);

END LOOP;

CLOSE Employees\_name;

END;

