**Task 1**

**Insert a new row using PL/SQL block in Employees Table with your roll number digits (BCSF18A123 = 123) as empno, your name as ename and other values of your own choice.**

BEGIN

insert into emp(empno,ename,job) values(027,'Nouman','CLERK');

END;

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 027 | Nouman | CLERK | - | - | - | - | - |
| 7369 | SMITH | CLERK | 7902 | 12/17/1980 | 800 | - | 20 |
| 7499 | ALLEN | SALESMAN | 7698 | 02/20/1981 | 1600 | 300 | 30 |
| 7521 | WARD | SALESMAN | 7698 | 02/22/1981 | 1250 | 500 | 30 |
| 7566 | JONES | MANAGER | 7839 | 04/02/1981 | 2975 | - | 20 |
| 7654 | MARTIN | SALESMAN | 7698 | 09/28/1981 | 1250 | 1400 | 30 |
| 7698 | BLAKE | MANAGER | 7839 | 05/01/1981 | 2850 | - | 30 |
| 7782 | CLARK | MANAGER | 7839 | 06/09/1981 | 2450 | - | 10 |
| 7788 | SCOTT | ANALYST | 7566 | 12/09/1982 | 3000 | - | 20 |
| 7839 | KING | PRESIDENT | - | 11/17/1981 | 5000 | - | 10 |

**Task 2**

Declare two variables (1 number and 1 varchar) and store your roll number digits and your name respectively and display them on console as follows:

My Roll Number is: 12

My Name is: Muhammad Ahmed

**declare**

**rn number (4);**

**name varchar2(20);**

**begin**

**rn :=27;**

**name :='Syed Nouman Rehman';**

**dbms\_output.put\_line('My Roll Number is: ' || rn);**

**dbms\_output.put\_line('My Name is: ' || name);**

**end;**

My Roll Number is: 27

My Name is: Syed Nouman Rehman

Statement processed.

**Task 3**

Declare a variable and take input from user in that variable. If number is less than 100, multiply that number with 10, if greater, multiply with 5 and display on console.

**declare**

**a number(10);**

**BEGIN**

**a:=:a;**

**if (a<100) then a:=:a\*10;**

**else a:=:a\*5;**

**END IF;**

**dbms\_output.put\_line(a);**

**end;**

**output:**

**if I enter 105**

525

Statement processed.

**Task 4**

Take user’s marks of a subject as input and display his GPA and Grade (i.e A, A-, B+…) in that subject according to PUCIT policy. Make decision using SWITCH in PL/SQL.

**declare**

**num number(10);**

**begin**

**num :=:num;**

**case**

**when (num<50) then**

**dbms\_output.put\_line('GPA: 0.00');**

**dbms\_output.put\_line('Grade:F');**

**when (num<55) then**

**dbms\_output.put\_line('GPA: 1.00');**

**dbms\_output.put\_line('Grade:D');**

**when (num<58) then**

**dbms\_output.put\_line('GPA: 1.70');**

**dbms\_output.put\_line('Grade:C-');**

**when (num<61) then**

**dbms\_output.put\_line('GPA: 2.00');**

**dbms\_output.put\_line('Grade:C');**

**when (num<65) then**

**dbms\_output.put\_line('GPA: 2.30');**

**dbms\_output.put\_line('Grade:C+');**

**when (num<70) then**

**dbms\_output.put\_line('GPA: 2.70');**

**dbms\_output.put\_line('Grade:B-');**

**when (num<75) then**

**dbms\_output.put\_line('GPA: 3.00');**

**dbms\_output.put\_line('Grade:B');**

**when (num<80) then**

**dbms\_output.put\_line('GPA: 3.30');**

**dbms\_output.put\_line('Grade:B+');**

**when (num<85) then**

**dbms\_output.put\_line('GPA: 3.70');**

**dbms\_output.put\_line('Grade:A-');**

**else**

**dbms\_output.put\_line('GPA: 4.00');**

**dbms\_output.put\_line('Grade:A');**

**end case;**

**end;**

**output:**

**if I enter 60**

GPA: 2.00

Grade:C

Statement processed.

**Task 5**

Insert a new row using PL/SQL block in Employees Table by taking all inputs from user with appropriate message.

**declare**

**empno number(5);**

**ename varchar2(25);**

**job varchar2(10);**

**mgr number(5);**

**hiredate varchar2(13);**

**sal number(5);**

**comm number(4);**

**deptno number(3);**

**begin**

**empno:=:empno;**

**ename:=:ename;**

**job:=:job;**

**mgr:=:mgr;**

**hiredate:=:hiredate;**

**sal:=:sal;**

**comm:=:comm;**

**deptno:=:deptno;**

**insert into emp values(empno,ename,job,mgr,hiredate,sal,comm,deptno);**

**end;**

**Task 6**

Create a Procedure displayAllEmployees without any parameter that displays complete data of EMP table.

**create procedure displayAllEmployees is**

**begin**

**empno emp.empno%type;**

**ename emp.ename%type;**

**job emp.job%type;**

**mgr emp.mgr%type;**

**hiredate emp.hiredate%type;**

**sal emp.sal%type;**

**comm emp.comm%type;**

**deptno emp.deptno%type;**

**begin**

**select empno,ename,job,mgr,hiredate,sal,comm,deptno**

**into empno,ename,job,mgr,hiredate,sal,comm,deptno from emp**

**where empno=7369**

**dbms\_output.put\_line(empno);**

**dbms\_output.put\_line(ename);**

**dbms\_output.put\_line(job);**

**dbms\_output.put\_line(mgr);**

**dbms\_output.put\_line(hiredate);**

**dbms\_output.put\_line(sal);**

**dbms\_output.put\_line(comm);**

**dbms\_output.put\_line(deptno);**

**end;**

**ii)**

begin

 displayEmployTable();

end;

**Task 7**

Create a Procedure insertIntoEMP with all appropriate parameters (required to insert in the row) to insert a new row in Emp Table. Execute that Procedure. Then Display newly inserted row.

**create procedure insert\_IntoEMP (**

**empno number ,**

**ename varchar2 ,**

**job varchar2 ,**

**mgr number ,**

**hiredate varchar2 ,**

**sal number ,**

**comm number ,**

**deptno number ) is**

**begin**

**insert into emp values(empno,ename,job,mgr,hiredate,sal,comm,deptno);**

**end;**

**ii)**

**begin**

**insert\_IntoEMP(027,'Nouman','Clerk',7369,'11/19/1998',2500,0,10);**

**end;**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 27 | Nouman | Clerk | 7369 | 11/19/1998 | 2500 | 0 | 10 |
| 7369 | SMITH | CLERK | 7902 | 12/17/1980 | 800 | - | 20 |
| 7499 | ALLEN | SALESMAN | 7698 | 02/20/1981 | 1600 | 300 | 30 |

**Task 8**

Create a Procedure getTotalJobDays that takes employee name as parameter and returns the number of days since he was hired. Execute that procedure as well.

**i)**

**create or replace function getTotalJobDays (empname emp.ename%type)**

**return number is**

**num number;**

**begin**

**select round(sysdate-hiredate,0) into num from emp where empname=ename;**

**return num;**

**end;**

**ii)**

**select getTotalJobDays('ALLEN') from dual**

|  |
| --- |
| **GETTOTALJOBDAYS('ALLEN')** |
| 14538 |

**Task 9**

Create an index on ename in emp table.

**create index empEnameIndex**

**on emp(ename)**

**Task 10**

Remove the above index.

**drop index empEnameIndex**