Login Id: EXAM143

Id: 18MCA0157

Name: Himanshu

Q2

Project-Employee database
Consider the database maintained by a company which stores the details of the projects assigned to the employees.
Following are the tables:

PROJECT (PNO, P_NAME, PTYPE, DURATION)

```
create table project(
  2  pno varchar(5),
  3  p_name varchar(20),
  4  ptype varchar(20),
  5  duration number(5)
  6  );
```

EMPLOYEE (ENO, E_NAME, QUALIFICATION, JOINDATE)

```
create table employee(
  2  eno varchar(5),
  3  e_name varchar(20),
  4  qualification varchar(20),
  5  joindate varchar(20)
  6  );
```

The relationship is as follows:
PROJECT - EMPLOYEE: M-M Relationship, with descriptive attributes as start_date (date), no_of_hours_worked (integer).

```
create table works(
  2  pno varchar(5),
  3  eno varchar(5)
  4  );
```

Contraint:

alter table project add constraint p1 PRIMARY KEY(pno);

alter table employee add constraint p2 PRIMARY KEY(eno);

alter table works add constraint f1 FOREIGN KEY(pno) REFERENCES project(pno);

alter table works add constraint f1 FOREIGN KEY(eno) REFERENCES employee(eno);

Insert Into:

SQL> insert into project values('10001','Data Mining','Regular',20,'20-10-2019',30);

1 row created.

SQL> insert into project values('10002','Database','Regular',30,'20-10-2019',30);

1 row created.

SQL> insert into project values('10003','Soft Computing','Regular',30,'20-10-2019',30);

1 row created.

SQL> insert into employee values('20001','Himanshu','MCA','20-10-2019');

1 row created.

SQL> insert into employee values('20002','Pritam','MCA','20-10-2019');

1 row created.

SQL> insert into employee values('20003','Sidhant','MCA','20-10-2019');

1 row created.

SQL> insert into employee values('20004','Ramesh','MCA','20-10-2019');

1 row created.

SQL> insert into employee values('20005','Suresh','MCA','20-10-2019');

1 row created.

SQL> insert into works values('10001','20001');

1 row created.

SQL> insert into works values('10001','20002');

1 row created.

SQL> insert into works values('10001','20003');

1 row created.

SQL> insert into works values('10002','20004');

1 row created.

SQL> insert into works values('10003','20005');

1 row created.

Q1: Write a PL/SQL Procedure to accept project name as input and returns the number of employees working on the project.

```
create or replace procedure getEmployee(pname IN varchar)
  2  as
  3  cursor c is select w.pno,p.p_name,count(eno) as eno from works w,project p where
p.pno=w.pno and p.p_name=pname group by w.pno,p.p_name;
  4  begin
  5  for i in c loop
  6  dbms_output.put_line(i.pno||' '||i.p_name||' '||i.eno);
  7  end loop;
  8  end;
  9  /

execute getEmployee('Data Mining');
10001 Data Mining 3
```

Q2: Write a PL/SQL code to display the Employee details (Eno, Ename) who has been working with more than 1 projects.

```
create or replace procedure getcount
  2  as
  3  cursor c is select w.eno,e.e_name, count(pno) as pno from works w,employee e
where e.eno=w.eno group by w.eno,e.e_name having count(pno)>1;
  4  begin
  5  for i in c loop
  6  dbms_output.put_line(i.eno||' '||i.e_name||' '||i.pno);
  7  end loop;
  8  end;
  9  /

Procedure created.

SQL> execute getcount
20001 Himanshu 3
20004 Ramesh 2

PL/SQL procedure successfully completed.
```

Q3: Create a Trigger before insert or update on the field DURATION if the value for the DURATION is greater than 90 days and raise an exception and display the message that "the value of DURATION should not be greater than 90 days".

```
create or replace trigger checkdur
  2  before insert
  3  on project
  4  for each row
  5  begin
  6  if(:new.duration>90) then
  7  raise_application_error(-20000,'the value of DURATION should not be greater than
90 days');
  8  end if;
  9  end;
 10  /
```

Trigger created.

```
SQL> insert into project values('10004','New Project','Regular',100,'10-12-2019',0);
insert into project values('10004','New Project','Regular',100,'10-12-2019',0)
            *
ERROR at line 1:
ORA-20000: the value of DURATION should not be greater than 90 days
ORA-06512: at "VIT.CHECKDUR", line 3
ORA-04088: error during execution of trigger 'VIT.CHECKDUR'
```