

# DBMS LABORATORY 2

## LAB RECORD

NAME : ANIRBAN HAZRA

SECTION : CSE - 16

ROLL : 2005643

DATE : 15/02/2022

## TABLE : POSITION

| Positionid | Posdesc    |
|------------|------------|
| 1          | President  |
| 2          | Manager    |
| 3          | Programmer |
| 4          | Accountant |
| 5          | Salesman   |

| POSITION    |              |             |
|-------------|--------------|-------------|
| Column Name | Data Type    | Constraints |
| PositionId  | NUMBER(1)    | PRIMARY KEY |
| PosDesc     | VARCHAR2(10) |             |

### TABLE CREATION :

```
SQL> create table position (positionid number(1) constraint c1 primary key , posdec varchar2(10));
Table created.
```

TABLE DESCRIPTION :

```
SQL> desc Position;
Name                                     Null?    Type
-----
POSITIONID                             NOT NULL NUMBER(1)
POSDEC                                  VARCHAR2(10)
```

### TABLE CONSTRAINTS :

```
SQL> Select constraint_name , constraint_type from user_constraints where table_name = 'POSITION';
```

| CONSTRAINT_NAME | CONSTRAINT_TYPE |
|-----------------|-----------------|
| C1              | P               |

```
SQL> Anirban Hazra
```

# TABLE : QUALIFICATION

| Qualid | QualDesc    |
|--------|-------------|
| 1      | Doctorate   |
| 2      | Masters     |
| 3      | Bachelors   |
| 4      | Associates  |
| 5      | High School |

## QUALIFICATION

| Column Name | Data Type    | Constraints |
|-------------|--------------|-------------|
| QualId      | NUMBER(1)    | PRIMARY KEY |
| QualDesc    | VARCHAR2(11) |             |

## TABLE CREATION :

```
SQL> create table qualification (qualid number(1) constraint c2 primary key,qualdesc varchar2(11));  
Table created.
```

## TABLE DESCRIPTION :

```
SQL> desc Qualification;  
Name                               Null?   Type  
-----  
QUALID                             NOT NULL NUMBER(1)  
QUALDESC                           VARCHAR2(11)  
  
SQL> Anirban Hazra
```

## TABLE CONSTRAINTS :

```
SQL> Select constraint_name , constraint_type from user_constraints where table_name = 'QUALIFICATION';  
  
CONSTRAINT_NAME                     C  
-----  
C2                                   P
```

# TABLE : EMPLEVEL

| LevelNo | LowSalary | HighSalary |
|---------|-----------|------------|
| 1       | 1         | 25000      |
| 2       | 25001     | 50000      |
| 3       | 50001     | 100000     |
| 4       | 100001    | 500000     |

| EMPLEVEL    |           |             |
|-------------|-----------|-------------|
| Column Name | Data Type | Constraints |
| LevelNo     | NUMBER(1) | PRIMARY KEY |
| LowSalary   | NUMBER(6) |             |
| HighSalary  | NUMBER(6) |             |

## TABLE CREATION :

```
SQL> create table emplevel (levelno number(1) constraint c3 primary key, lowsalary number(6), highsalar y number(6));  
Table created.
```

## TABLE DESCRIPTION :

```
SQL> desc Emplevel;  
Name                               Null?    Type  
-----  
LEVELNO                            NOT NULL NUMBER(1)  
LOWSALARY                          NUMBER(6)  
HIGHSALARY                         NUMBER(6)
```

## TABLE CONSTRAINTS :

```
SQL> Select constraint_name , constraint_type from user_constraints where table_name = 'EMPLEVEL';  
CONSTRAINT_NAME                     C  
-----  
C3                                  P
```

# TABLE : DEPT

| DeptId | DeptName  | Location    | Employeeid |
|--------|-----------|-------------|------------|
| 10     | Finance   | Charlotte   | 123        |
| 20     | Infosys   | New York    | 543        |
| 30     | Sales     | Woodbridge  | 135        |
| 40     | Marketing | Los Angeles | 246        |

## DEPT

| Column Name | Data Type    | Constraints |
|-------------|--------------|-------------|
| DeptId      | NUMBER(2)    | PRIMARY KEY |
| DeptName    | VARCHAR2(12) |             |
| Location    | VARCHAR2(15) |             |
| Employeeid  | NUMBER(3)    | FOREIGN KEY |

## TABLE CREATION :

```
SQL> create table dept (deptid number(2) constraint c7 primary key,deptname varchar2(12), location varchar2(15) , employeeid number(3) constraint c8 references emp (employeeid));
```

```
Table created.
```

## TABLE DESCRIPTION :

```
SQL> desc dept;
```

| Name       | Null?    | Type         |
|------------|----------|--------------|
| -----      | -----    | -----        |
| DEPTID     | NOT NULL | NUMBER(2)    |
| DEPTNAME   |          | VARCHAR2(12) |
| LOCATION   |          | VARCHAR2(15) |
| EMPLOYEEID |          | NUMBER(3)    |

## TABLE CONSTRAINT :

```
SQL> select constraint_name , constraint_type from user_constraints where table_name = 'DEPT' ;
```

| CONSTRAINT_NAME | CONSTRAINT_TYPE |
|-----------------|-----------------|
| -----           | -----           |
| C8              | R               |
| C7              | P               |

```
SQL> Anirban Hazra
```

# TABLE : DEPENDENT

| Employeeid | Dependentid | DepDOB     | Relation |
|------------|-------------|------------|----------|
| 543        | 1           | 28/09/1958 | Spouse   |
| 543        | 2           | 14/10/1988 | Son      |
| 200        | 1           | 10/06/1976 | Spouse   |
| 222        | 1           | 04/02/1975 | Spouse   |
| 222        | 2           | 23/08/1997 | Son      |
| 222        | 3           | 10/07/1999 | Daughter |
| 111        | 1           | 12/12/1945 | Spouse   |

## DEPENDENT

### Column Name

### Data Type

### Constraints

Employeeid

NUMBER(3)

COMPOSITE PK, FK

Dependentid

NUMBER(1)

COMPOSITE PK

DepDOB

DATE

Relation

VARCHAR2(8)

## TABLE CREATION :

```
SQL> create table dependent (employeeid number(3) constraint c10 references employee(employeeid) ,dependentid number(1),depdob date , relation varchar2(8) , constraint c11 primary key(employeeid , dependentid));
```

Table created.

## TABLE DESCRIPTION :

```
SQL> desc dependent;
```

| Name        | Null?    | Type        |
|-------------|----------|-------------|
| EMPLOYEEID  | NOT NULL | NUMBER(3)   |
| DEPENDENTID | NOT NULL | NUMBER(1)   |
| DEPDOB      |          | DATE        |
| RELATION    |          | VARCHAR2(8) |

## TABLE CONSTRAINT :

```
SQL> select constraint_name , constraint_type from user_constraints where table_name = 'DEPENDENT' ;
```

CONSTRAINT\_NAME

C10

C11

C  
-  
R  
P

# TABLE : EMPLOYEE

| Employeeid | Lname   | Fname   | Positionid | Supervisor | Hiredate | Salary | Commission | Deptid | Qualid |
|------------|---------|---------|------------|------------|----------|--------|------------|--------|--------|
| 111        | Smith   | John    | 1          |            | 15/04/60 | 265000 | 35000      | 10     | 1      |
| 246        | Houston | Larry   | 2          | 111        | 19/05/67 | 150000 | 10000      | 4      | 2      |
| 123        | Roberts | Sandi   | 2          | 111        | 02/12/91 | 75000  |            | 10     | 2      |
| 433        | Mccall  | Alex    | 3          | 543        | 10/05/97 | 66500  | 20000      | 20     | 4      |
| 543        | Dev     | Derek   | 2          | 111        | 15/03/95 | 80000  | 3000       | 20     | 1      |
| 200        | Shaw    | Jinku   | 5          | 135        | 03/01/00 | 24500  | 5000       | 30     |        |
| 135        | Garner  | Stanley | 2          | 111        | 29/02/96 | 45000  |            | 30     | 5      |
| 222        | Chen    | Sunny   | 4          | 123        | 15/08/99 | 35000  |            | 10     | 3      |

| EMPLOYEE    |              |             |
|-------------|--------------|-------------|
| Column Name | Data Type    | Constraints |
| Employeeid  | NUMBER(3)    | PRIMARY KEY |
| Lname       | VARCHAR2(15) | NOT NULL    |
| Fname       | VARCHAR2(15) | NOT NULL    |
| PositionId  | NUMBER(1)    | FOREIGN KEY |
| Suervisor   | NUMBER(3)    |             |
| HireDate    | DATE         |             |
| Salary      | NUMBER(6)    |             |
| Commission  | NUMBER(5)    |             |
| DeptId      | NUMBER(2)    | FOREIGN KEY |
| QualId      | NUMBER(1)    | FOREIGN KEY |

## TABLE CREATION :

```
SQL> create table Employee (employeeid number(3) constraint c4 primary key, lname varchar2(15) not null , fname varchar2(15) not null , positionid number(1) constraint c5 references position(positionid) , supervisor number(3) , hiedate date, salary number(6) , commission number(5) , deptid number(2) , qualid number(1) constraint c6 references qualification(qualid));
```

Table created.

```
SQL> alter table employee add constraint c9 foreign key(deptid) references dept(deptid);
```

Table altered.

## TABLE DESCRIPTION :

```
SQL> desc employee;
```

| Name       | Null?    | Type         |
|------------|----------|--------------|
| -----      | -----    | -----        |
| EMPLOYEEID | NOT NULL | NUMBER(3)    |
| LNAME      | NOT NULL | VARCHAR2(15) |
| FNAME      | NOT NULL | VARCHAR2(15) |
| POSITIONID |          | NUMBER(1)    |
| SUPERVISOR |          | NUMBER(3)    |
| HIEDATE    |          | DATE         |
| SALARY     |          | NUMBER(6)    |
| COMMISSION |          | NUMBER(5)    |
| DEPTID     |          | NUMBER(2)    |
| QUALID     |          | NUMBER(1)    |

## TABLE CONSTRAINTS :

```
SQL> select constraint_name , constraint_type from user_constraints where table_name = 'EMPLOYEE' ;
```

| CONSTRAINT_NAME |       |
|-----------------|-------|
| -----           | ----- |
| C5              | R     |
| C6              | R     |
| C9              | R     |
| SYS_C008325     | C     |
| SYS_C008326     | C     |
| C4              | P     |

6 rows selected.