

Lab Assignment-03

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QUES 1: Create the following tables.

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

DEPT

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

EMPLEVEL

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

POSITION

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

DEPENDENT

Column Name	Data Type	Constraints
EmployeeId	NUMBER(3)	COMPOSITE PK, FK
DependentId	NUMBER(1)	COMPOSITE PK
DepDOB	DATE	
Relation	VARCHAR2(8)	

QUALIFICATION

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

SOLUTION:

Tables Creations with Primary Key Constraints:

```
SQL> create table qualification(  
2   QualId number(1) constraint qualification_QualId_pk PRIMARY KEY,  
3   QualDesc varchar2(11));
```

```
SQL> create table position(  
2   PositionId number(1) constraint position_PositionId_pk PRIMARY KEY,  
3   PosDesc varchar2(10));
```

```
SQL> create table dept(  
2   DeptId number(2) constraint dept_DeptId_pk PRIMARY KEY,  
3   DeptName varchar2(12),
```

```
4   Locatin varchar2(15),
5   EmployeeId number(3));
```

```
SQL> create table emplevel(
2   LevelNo number(1) constraint emplevel_LevelNo_pk primary key,
3   LowSalary number(6),
4   HighSalary number(6));
```

```
SQL> create table dependent(
2   EmployeeId number(3),
3   DependentId number(1),
4   DepDOB date,
5   Relation varchar2(8));
```

```
SQL>   create table employee(Employeeid number(3) constraint employee_Employeeid_pk
primary key,
2   Lname varchar2(15) constraint employee_Lname_nn not null,
3   Fname varchar2(15) constraint employee_Fname_nn not null,
4   Positionid number(1),
5   Supervisor number(3),
6   Hiredate date,
7   salary number(6),
8   commision number(5),
9   Deptid number(2),
10  Qualid number(1));
```

Use of Alter Commands to add composite and foreign keys in the tables created:

```
SQL> Alter table Dependent
2   ADD CONSTRAINT CompKey_empdep PRIMARY KEY(EmployeeId,DependentId);
```

```
SQL> alter table Dept add constraint Dept_Employeeid_fk foreign key(Employeeid)
references
2   Employee(Employeeid);
```

```
SQL> alter table Employee add constraint Employee_Positionid_fk foreign key(Positionid)
references
2   Position(Positionid);
```

```
SQL> alter table Employee add constraint Employee_Deptid_fk foreign key(Deptid)
references
2   Dept(Deptid);
```

```
SQL> alter table Employee add constraint Employee_Qualid_fk foreign key(Qualid)
references
2   Qualification(Qualid);
```

Displaying Constraints of each table:

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

```
SQL> select constraint_name, table_name from user_constraints where table_name='QUALIFICATION';  
  
CONSTRAINT_NAME          TABLE_NAME  
-----  
QUALIFICATION_QUALID_PK   QUALIFICATION
```

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

```
SQL> select constraint_name, table_name from user_constraints where table_name='POSITION';  
  
CONSTRAINT_NAME          TABLE_NAME  
-----  
POSITION_POSITIONID_PK   POSITION
```

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

```
SQL> select constraint_name, table_name from user_constraints where table_name='DEPT';  
  
CONSTRAINT_NAME          TABLE_NAME  
-----  
DEPT_DEPTID_PK           DEPT  
DEPT_EMPLOYEEID_FK       DEPT
```

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

```
SQL> select constraint_name, table_name from user_constraints where table_name='EMPLEVEL';  
  
CONSTRAINT_NAME          TABLE_NAME  
-----  
EMPLEVEL_LEVELNO_PK      EMPELVEL
```

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

```
SQL> select constraint_name, table_name from user_constraints where table_name='DEPENDENT';  
  
CONSTRAINT_NAME          TABLE_NAME  
-----  
COMPKEY_EMPDEP           DEPENDENT
```

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

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

CONSTRAINT_NAME	TABLE_NAME
EMPLOYEE_LNAME_NN	EMPLOYEE
EMPLOYEE_FNAME_NN	EMPLOYEE
EMPLOYEE_EMPLOYEEID_PK	EMPLOYEE
EMPLOYEE_POSITIONID_FK	EMPLOYEE
EMPLOYEE_DEPTID_FK	EMPLOYEE
EMPLOYEE_QUALID_FK	EMPLOYEE

```
6 rows selected.
```