

Ex. No:4
Date:21/08/2024

Roll No: 230701070
Name: Dhanush

WORKING WITH CONSTRAINTS

Find the Solution for the following:

1. Add a table-level PRIMARY KEY constraint to the EMP table on the ID column. The constraint should be named at creation. Name the constraint my_emp_id_pk.

ALTER TABLE EMP ADD CONSTRAINT my_emp_id_pk PRIMARY KEY (ID);

Object Type **TABLE** Object **EMPSS**

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|--------------|-------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| <u>EMPSS</u> | <u>NAME</u> | VARCHAR2 | 50 | - | - | - | ✓ | - | - |
| | <u>ID</u> | NUMBER | 22 | - | - | 1 | - | - | - |
| 1 - 2 | | | | | | | | | |

2. Create a PRIMAY KEY constraint to the DEPT table using the ID colum. The constraint should be named at creation. Name the constraint my_dept_id_pk.

ALTER TABLE DEPT ADD CONSTRAINT my_dept_id_pk PRIMARY KEY (ID);

Object Type **TABLE** Object **DEPTS**

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|--------------|-------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| <u>DEPTS</u> | <u>NAME</u> | VARCHAR2 | 50 | - | - | - | ✓ | - | - |
| | <u>ID</u> | NUMBER | 22 | - | - | 1 | - | - | - |
| 1 - 2 | | | | | | | | | |

3. Add a column DEPT_ID to the EMP table.

ALTER TABLE EMPSS
ADD DEPT_ID NUMBER;

Object Type **TABLE** Object **EMPSS**

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|--------------|----------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| <u>EMPSS</u> | <u>NAME</u> | VARCHAR2 | 50 | - | - | - | ✓ | - | - |
| | <u>ID</u> | NUMBER | 22 | - | - | 1 | - | - | - |
| | <u>DEPT_ID</u> | NUMBER | 22 | - | - | - | ✓ | - | - |
| 1 - 3 | | | | | | | | | |

4. Add a foreign key reference on the EMP table that ensures that the employee is not assigned to nonexistent department. Name the constraint my_emp_dept_id_fk.

ALTER TABLE EMPSS

ADD CONSTRAINT my_emp_dept_id_fk

FOREIGN KEY (DEPT_ID)

REFERENCES DEPTS(ID);

5. Modify the EMP table. Add a COMMISSION column of NUMBER data type, precision 2, scale 2. Add a constraint to the commission column that ensures that a commission value is greater than zero.

ALTER TABLE EMP ADD COMMISSION NUMBER(2,2);

Object Type **TABLE** Object **EMPSS**

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|--------------|-------------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| <u>EMPSS</u> | <u>NAME</u> | VARCHAR2 | 50 | - | - | - | ✓ | - | - |
| | <u>ID</u> | NUMBER | 22 | - | - | 1 | - | - | - |
| | <u>DEPT_ID</u> | NUMBER | 22 | - | - | - | ✓ | - | - |
| | <u>COMMISSION</u> | NUMBER | - | 2 | 2 | - | ✓ | - | - |
| 1 - 4 | | | | | | | | | |

ALTER TABLE EMP ADD CONSTRAINT chk_commission_positive CHECK (COMMISSION > 0);

