Exp no : 04                                          REG NO: 230701017
NAME: Ajay Srinivas R
DATE :21.08.2024

# WORKING WITH CONSTRAINTS

Find the Solution for the following:

- Add a table-level PRIMARY KEY constraint to the EMP table on the ID column.The constraintshould 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 |
|-------|--------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| EMPSS | NAME | VARCHAR2 | 50 | - | - | - | ✓ | - | - |
|  | ID | NUMBER | 22 | - | - | 1 | - | - | - |
|  |  |  |  |  |  |  |  |  | 1 - 2 |

- Create a PRIMAY KEY constraint to the DEPT table using the ID colum. The constraint shouldbe named at creation. Name the constraint my_dept_id_pk.

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

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comm |
|-------|--------|-----------|--------|-----------|-------|-------------|----------|---------|------|
| DEPTS | NAME | VARCHAR2 | 50 | - | - | - | ✓ | - | - |
|  | ID | NUMBER | 22 | - | - | 1 | - | - | - |
|  |  |  |  |  |  |  |  |  | 1 - 2 |

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

- 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 |
|-------|--------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| EMPSS | NAME | VARCHAR2 | 50 | - | - | - | ✓ | - | - |
| | ID | NUMBER | 22 | - | - | 1 | - | - | - |
| | DEPT_ID | NUMBER | 22 | - | - | - | ✓ | - | - |
| | | | | | | | | | 1 - 3 |

Add a foreign key reference on the EMP table that ensures that the employee is not assigned tononexistent deparment. Name the constraint

my_emp_dept_id_fk.

ALTER TABLE EMPSS
ADD CONSTRAINT
my_emp_dept_id_fkFOREIGN
KEY (DEPT_ID)
REFERENCES DEPTS(ID);

• 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 |
|-------|--------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| EMPSS | NAME | VARCHAR2 | 50 | - | - | - | ✔ | - | - |
| | ID | NUMBER | 22 | - | - | 1 | - | - | - |
| | DEPT_ID | NUMBER | 22 | - | - | - | ✔ | - | - |
| | COMMISSION | NUMBER | - | 2 | 2 | - | ✔ | - | - |
| | | | | | | | | | 1 - 4 |

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

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

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