

Ex no:4

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.

```
CREATE TABLE EMP( ID NUMBER(5),FIRST_NAME VARCHAR(25),LAST_NAME VARCHAR(25));
```

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

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMP	ID	NUMBER	-	5	0	1	-	-	-
	FIRST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	LAST_NAME	VARCHAR2	25	-	-	-	✓	-	-
1 - 3									

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

```
CREATE TABLE DEPT (ID INT NOT NULL,CONSTRAINT my_dept_id_pk PRIMARY KEY(ID));
```

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DEPT	ID	NUMBER	22	-	0	1	-	-	-
1 - 1									

3.Add a column DEPT_ID to the EMP table. 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.

```
CREATE TABLE DEPARTMENTS(ID INT PRIMARY KEY );
```

ALTER TABLE EMP ADD DEPT_ID INT ADD CONSTRAINT my_emp_id_fk FOREIGN KEY (DEPT_ID) REFERENCES DEPARTMENTS (ID);

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMP	ID	NUMBER	-	5	0	1	-	-	-
	FIRST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	LAST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	DEPT_ID	NUMBER	22	-	0	-	✓	-	-
1 - 4									

4.Modify the EMP table. Add a COMMISSION column of NUMBER data type, precision2, scale 2. Add a constraint to the commission column that ensures that a commission value is greater than zero.

ALTER TABLE EMP ADD COMISSION NUMBER(2,2) CHECK (COMISSION>0);

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMP	ID	NUMBER	-	5	0	1	-	-	-
	FIRST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	LAST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	DEPT_ID	NUMBER	22	-	0	-	✓	-	-
	COMISSION	NUMBER	-	2	2	-	✓	-	-