

Ex.No.: 4		WORKING WITH CONSTRAINTS
Date:	13/8/24	

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 ( EmpNo NUMBER(7) PRIMARY KEY,
  Last_name VARCHAR2(25) NOT NULL,First_name VARCHAR2(25));
```

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMP	ID	NUMBER	-	6	0	1	-	-	-
	LAST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	SALARY	NUMBER	-	8	2	-	✓	-	-

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

```
CREATE TABLE DEPT (Dept_id NUMBER(6) NOT NULL,Dept_name
VARCHAR2(20) NOT NULL,Manager_id NUMBER(6), Location_id
NUMBER(4),CONSTRAINT my_dept_id_pk PRIMARY KEY (Dept_id));
```

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DEPT	DEPT_ID	NUMBER	-	6	0	1	-	-	-
	DEPT_NAME	VARCHAR2	20	-	-	-	-	-	-
	MANAGER_ID	NUMBER	-	6	0	-	✓	-	-
	LOCATION_ID	NUMBER	-	4	0	-	✓	-	-

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.

```
ALTER TABLE EMP ADD Dept_id NUMBER(6);
ALTER TABLE EMP ADD CONSTRAINT my_emp_dept_id_fk FOREIGN KEY
(Dept_id) REFERENCES DEPT (Dept_id);
```

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMP	EMPNO	NUMBER	-	7	0	1	-	-	-
	LAST_NAME	VARCHAR2	25	-	-	-	-	-	-
	FIRST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	DEPT_ID	NUMBER	-	6	0	-	✓	-	-

4. 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(8,2) CONSTRAINT commission_check CHECK
(Commission > 0);
```

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMP	EMPNO	NUMBER	-	7	0	1	-	-	-
	LAST_NAME	VARCHAR2	25	-	-	-	-	-	-
	FIRST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	DEPT_ID	NUMBER	-	6	0	-	✓	-	-
	COMMISSION	NUMBER	-	8	2	-	✓	-	-