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**SUBJECT:** DBMS LAB

**SUBJECT CODE:** CS212L

**TOTAL PAGES SUBMITTED:** 3

## **ASSIGNMENT – 4**

### **ON: DATABASE CONSTRAINTS**

**Q1. 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. Hint: The constraint is enabled as soon as the ALTER TABLE command executes successfully.**

Ans1.

```
ALTER TABLE EMP
```

```
ADD CONSTRAINT my_emp_id_pk
```

```
PRIMARY KEY(ID);
```

**Q2. Create a PRIMARY KEY constraint to the DEPT table using the ID column. The constraint should be named at creation. Name the constraint my\_deptid\_pk. Hint: The constraint is enabled as soon as the ALTER TABLE command executes successfully.**

Ans2.

```
ALTER TABLE DEPT
```

```
ADD CONSTRAINT my_deptid_pk
```

```
PRIMARY KEY(ID);
```

**Q3. 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 a nonexistent department. Name the constraint my\_emp\_dept\_id\_fk.**

Ans3.

```
ALTER TABLE EMP
```

```
ADD (DEPT_ID NUMBER(8));
```

```
ALTER TABLE EMP
```

```
ADD CONSTRAINT my_emp_dept_id_fk
```

```
FOREIGN KEY (DEPT_ID)
```

```
REFERENCES EMP(ID);
```

**Q4. Confirm that the constraints were added by querying the USER\_CONSTRAINTS view. Note the types and names of the constraints. Save your statement text in a file called lab4\_4.sql.**

CONSTRAINT_NAME	C
MY_DEPTID_PK	P
MY_EMP_ID_PK	P
MY_EMP_DEPT_ID_FK	R

Ans4.

```
SELECT constraint_name, constraint_type
FROM user_constraints
WHERE table_name='EMP' OR table_name='DEPT';
```

#### Verification table -



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#### Work Screen

File or URL:  No file chosen

Enter statements:

```
SELECT constraint_name, constraint_type
FROM user_constraints
WHERE table_name='EMP' OR table_name='DEPT';
```


CONSTRAINT_NAME	C
MY_DEPTID_PK	P
MY_EMP_ID_PK	P
MY_EMP_DEPT_ID_FK	R




**Q5. Display the object names and types from the USER\_OBJECTS data dictionary view for the EMP and DEPT tables. Notice that the new tables and a new index were created.**

Ans5.

```
SELECT object_name, object_type
FROM user_objects
WHERE object_name='EMP' OR object_name='DEPT';
```

## Verification table -



  
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### Work Screen

File or URL:  No file chosen

Enter statements:

```
SELECT object_name, object_type
FROM user_objects
WHERE object_name='EMP' OR object_name='DEPT';
```

OBJECT_NAME	OBJECT_TYPE
DEPT	TABLE
EMP	TABLE

If you have time, complete the following exercise.

**Q6. 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.**

Ans6.

ALTER TABLE EMP

ADD COMMISSION NUMBER(2,2) CONSTRAINT emp\_comm\_min

CHECK (COMMISSION>0);