**ASSIGNMENT – 4**

**ON: DATABASE CONSTRAINTS**

**Q1. Add a table-level PRIMAY 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 ALTE 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 ALTE 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 -**



**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 -**



**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);