

Table created.

```
SQL> INSERT INTO EMP3305(Empno,Empname,Depto,Jobtitle,Salary,Commission) VALUES(3305,'SATLAS ROHIT',50,'MANAGER',1000.00,100.00);
1 row created.
```

```
SQL> Alter table EMP3305 rename column Depto to Deptno;
Table altered.
```

```
SQL> Alter table EMP3305 MODIFY(Salary number(8,2),Commission number(8,2));
Table altered.

SQL> INSERT INTO EMP3305 VALUES(1001,'John Smith',10,'MANAGER',DATE '2024-1-15',80000,50000);
1 row created.

SQL> INSERT INTO EMP3305 VALUES(1002,'Jane Doe',10,'ANALYST',DATE '2026-12-31',60000,NULL);
1 row created.

SQL> INSERT INTO EMP3305 VALUES(1003,'Bob Wilson',20,'CLERK',DATE '2024-03-20',25000,30000);
INSERT INTO EMP3305 VALUES(1003,'Bob Wilson',20,'CLERK',DATE '2024-03-20',25000,30000)
*
ERROR at line 1:
ORA-02290: check constraint (CT2024503305.COM) violated

SQL> INSERT INTO EMP3305 VALUES(1003,'Bob Wilson',20,'CLERK',DATE '2024-03-20',25000,30000);
INSERT INTO EMP3305 VALUES(1003,'Bob Wilson',20,'CLERK',DATE '2024-03-20',25000,30000)
*
ERROR at line 1:
ORA-02290: check constraint (CT2024503305.COM) violated

SQL> INSERT INTO EMP3305 VALUES(1004,'Alice Brown',30,'ENGINEER',DATE '2024-05-10',70000,NULL);
INSERT INTO EMP3305 VALUES(1004,'Alice Brown',30,'ENGINEER',DATE '2024-05-10',70000,NULL)
*
ERROR at line 1:
ORA-02290: check constraint (CT2024503305.J_TITLE) violated
```

```
SQL> select * from Emp3305
2 ;
```

EMPNO	EMPNAME	DEPTNO
3305	SATLAS ROHIT	50
MANAGER		1000
100		
1001	John Smith	10
MANAGER		80000
50000		
1002	Jane Doe	10
ANALYST		60000

## 2.Department Table

```
SQL> CREATE TABLE DEPT(Deptno number(2) CONSTRAINT DP_PK Primary Key,
2 Deptname varchar2(30) CONSTRAINT DT_UQ Unique,
3 Deptname varchar2(30) CONSTRAINT DT_UQ Unique,
4 CREATE TABLE DEPT(Deptno number(2) CONSTRAINT DP_PK Primary Key,
5
SQL> CREATE TABLE DEPT(Deptno number(2) CONSTRAINT DP_PK Primary Key,
2 Deptname varchar2(30) CONSTRAINT DT_UQ Unique,
3 Location varchar2(30) NOT NULL,
4 Manager_empno number(4) , CONSTRAINT MANAGE FOREIGN KEY(Deptno) references DEPT3305(Deptno));
Deptname varchar2(30) CONSTRAINT DT_UQ Unique,
*
ERROR at line 2:
ORA-00907: missing right parenthesis

SQL> CREATE TABLE DEPT(Deptno number(2) CONSTRAINT DP_PK Primary Key,
2 Deptname varchar2(30) CONSTRAINT DT_UQ Unique,
3
SQL> CREATE TABLE DEPT(Deptno number(2) CONSTRAINT DP_PK Primary Key,
2 Deptname varchar2(30) CONSTRAINT DT_UQ Unique,
3 Location varchar2(30) NOT NULL,
4 Manager_empno number(4) , CONSTRAINT MANAGE FOREIGN KEY(Deptno) references DEPT3305(Deptno));
Manager_empno number(4) , CONSTRAINT MANAGE FOREIGN KEY(Deptno) references DEPT3305(Deptno))
*
ERROR at line 4:
ORA-00942: table or view does not exist

SQL> CREATE TABLE DEPT(Deptno number(2) CONSTRAINT DP_PK Primary Key,
2 Deptname varchar2(30) CONSTRAINT DT_UQ Unique,
3 Location varchar2(30) NOT NULL,
4 Manager_empno number(4) , CONSTRAINT MANAGE FOREIGN KEY(Deptno) references EMP3305(Deptno));
Manager_empno number(4) , CONSTRAINT MANAGE FOREIGN KEY(Deptno) references EMP3305(Deptno))
*
ERROR at line 4:
ORA-02270: no matching unique or primary key for this column-list
```

```
SQL> CREATE TABLE DEPT(Deptno number(2) CONSTRAINT DP_PK Primary Key,
2
SQL> CREATE TABLE DEPT(Deptno number(2) CONSTRAINT DP_PK Primary Key,
2 Deptname varchar2(30) CONSTRAINT DT_UQ Unique,
3 Location varchar2(30) NOT NULL,
4 Manager_empno number(4) , CONSTRAINT MANAGE FOREIGN KEY(Deptno) references EMP3305(EMPno));
Table created.
```

```
SQL> INSERT INTO DEPT INTO(10,'Sales','New York',NULL);
INSERT INTO DEPT INTO(10,'Sales','New York',NULL)
*
ERROR at line 1:
ORA-00926: missing VALUES keyword

SQL> INSERT INTO DEPT VALUES(10,'Sales','New York',NULL);
INSERT INTO DEPT VALUES(10,'Sales','New York',NULL)
*
ERROR at line 1:
ORA-02291: integrity constraint (CT2024503305.MANAGE) violated - parent key not found

SQL> INSERT INTO EMP3305 VALUES(1001,'John Manager','10','MANAGER',DATE '2024-01-15',80000,NULL);
INSERT INTO EMP3305 VALUES(1001,'John Manager','10','MANAGER',DATE '2024-01-15',80000,NULL)
*
ERROR at line 1:
ORA-00917: missing comma

SQL> INSERT INTO EMP3305 VALUES(1001,'John Manager','10','MANAGER',DATE '2024-01-15',80000,NULL);
INSERT INTO EMP3305 VALUES(1001,'John Manager','10','MANAGER',DATE '2024-01-15',80000,NULL)
*
ERROR at line 1:
ORA-00001: unique constraint (CT2024503305.PR_KY) violated

SQL> UPDATE DEPT SET Manager_empno=1001 WHERE Deptno=10;

0 rows updated.

SQL> UPDATE DEPT SET Manager_empno=9999 WHERE Deptno=10;

0 rows updated.

SQL> _
```

### 3. Table Level Constraint Table

```
SQL> CREATE TABLE PROJECT(Projectno number(4) CONSTRAINT PR_PK Primary Key,
2 Projectname varchar2(50) CONSTRAINT PR_UQ UNIQUE,
3 Deptno number(2) NOT NULL,
4 Budget number(12,2) CONSTRAINT BG CHECK(Budget>0),
5 Start_date DATE DEFAULT SYSDATE,
6 End_date DATE,
7 CONSTRAINT ED CHECK(End_date IS NULL OR End_date>Start_date),
8 CONSTRAINT DT_FK FOREIGN KEY(Deptno) references DEPT(Deptno) ON DELETE CASCADE);

Table created.
```

```
SQL> INSERT INTO PROJECT VALUES(101,'ERP Implementation',10,500000,DATE '2024-01-01',DATE '2025-12-31');
INSERT INTO PROJECT VALUES(101,'ERP Implementation',10,500000,DATE '2024-01-01',DATE '2025-12-31')
*
ERROR at line 1:
ORA-02291: integrity constraint (CT2024503305.DT_FK) violated - parent key not found

SQL> INSERT INTO PROJECT VALUES(102,'Invalid Project',10,100000,DATE '2024-06-01',DATE '2024-01-01');
INSERT INTO PROJECT VALUES(102,'Invalid Project',10,100000,DATE '2024-06-01',DATE '2024-01-01')
*
ERROR at line 1:
ORA-02290: check constraint (CT2024503305.ED) violated

SQL> INSERT INTO PROJECT VALUES(103,'Long Project',10,200000,DATE '2020-01-01',DATE '2026-01-01');
INSERT INTO PROJECT VALUES(103,'Long Project',10,200000,DATE '2020-01-01',DATE '2026-01-01')
*
ERROR at line 1:
ORA-02291: integrity constraint (CT2024503305.DT_FK) violated - parent key not found

SQL> INSERT INTO PROJECT VALUES(104,'Small Project',10,30000,DATE '2024-01-01',NULL);
INSERT INTO PROJECT VALUES(104,'Small Project',10,30000,DATE '2024-01-01',NULL)
*
ERROR at line 1:
ORA-02291: integrity constraint (CT2024503305.DT_FK) violated - parent key not found
```

### 4. Employee Project Table

```
SQL> INSERT INTO employee_project3305 VALUES (1001, 101, 40);

1 row created.

SQL> INSERT INTO employee_project3305 VALUES (1001, 102, 20);
1 row created.

ERROR at line 1:
ORA-02293: integrity constraint (CT2024503703.EMP_PROJ_PROJ_FK) violated - parent key not found

SQL> INSERT INTO project3703 VALUES (102, 'Valid Project', 10, 100000, DATE '2024-01-01', DATE '2025-01-01');

1 row created.

SQL> INSERT INTO employee_project3305 VALUES (1001, 102, 20);

1 row created.
```

```

SQL> INSERT INTO employee_project3305 VALUES (1001, 101, 30);
*
INSERT INTO employee_project3305 VALUES (1001, 101, 30)
*
ERROR at line 1:
ORA-00001: unique constraint (CT2024503305.EMP_PROJ_PK) violated

SQL> altered.
SQL> INSERT INTO employee_project3305 VALUES (1002, 101, 200);
INSERT INTO employee_project3305 VALUES (1002, 101, 200),200)
*
ERROR at line 1:
ORA-02299: check consstraint (CT2024503305.EMP_PROJ_HOURS_CHK)violated

SQL> desc emp3305;
*
SQL> INSERT employee_prroject3305 VALUES (9999, 101, 10)
.

SQL> ALTER TABLE emp3305

```

Name	Null?	Type
EMPNO	NOT NULL	NUMBER(4)
EMPNAME	NOT NULL	VARCHAR2(50)
DEPTNO		NUMBER(2)
JORTITLE		VARCHAR2(50)
DOJ		DATE
JULARY		NUMBER(8,2)

```

SQL> INSERT INTO employee_project3305 VALUES (1001, 101, 40);

1 row created.

SQL> INSERT INTO employee_project3305 VALUES (1001, 102, 20);
1 row created.

ERROR at line 1:
ORA-02293: integrity constraint (CT2024503703.EMP_PROJ_PROJ_FK) violated -
parent key not found

SQL> INSERT INTO project3703 VALUES (102, 'Valid Project', 10, 100000, DATE
'2024-01-01', DATE '2025-01-01');

1 row created.

SQL> INSERT INTO employee_project3305 VALUES (1001, 102, 20);

1 row created.

```

## 5. Dependent Table

```
SQL> CREATE TABLE dependent3305 (  
2 empno NUMBER(4),  
3 dependent_name VARCHAR2(50),  
4 relationship VARCHAR2(30),  
5 dob DATE,  
6 CONSTRAINT dependent_pk PRIMARY KEY (empno, dependent_name),  
7 CONSTRAINT dependent_emp_fk FOREIGN KEY (empno) REFERENCES emp3340 ON DELETE CASCADE  
8. );  
  
Table created.  
  
SQL> desc dependent3305;  
Name Null? Type  
-----  
EMPNO NOT NULL NUMBER(4)  
DEPENDENT_NAME NOT NULL VARCHAR2(50)  
RELATIONSHIP VARCHAR2(30)  
DOB DATE  
  
SQL> INSERT INTO dependent3305 VALUES (1003, 'Unknown Relative', 'M', NULL, 'Other')  
  
1 row inserted.  
  
SQL> INSERT INTO dependent3305 VALUES (1001, 'John Smith Jr', 'M', DATE '2010-08-20',  
? |
```