

Exp no : 04  
DATE :21.08.2024

## 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.

ALTER TABLE EMP ADD CONSTRAINT my\_emp\_id\_pk PRIMARY KEY (ID);

Object Type **TABLE** Object **EMPSS**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPSS	NAME	VARCHAR2	50	-	-	-	✓	-	-
	ID	NUMBER	22	-	-	1	-	-	-
1 - 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.

ALTER TABLE DEPT ADD CONSTRAINT my\_dept\_id\_pk PRIMARY KEY (ID);

Object Type **TABLE** Object **DEPTS**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DEPTS	NAME	VARCHAR2	50	-	-	-	✓	-	-
	ID	NUMBER	22	-	-	1	-	-	-
1 - 2									

3. Add a column DEPT\_ID to the EMP table.

ALTER TABLE EMPSS  
ADD DEPT\_ID NUMBER;

Object Type **TABLE** Object **EMPSS**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPSS	NAME	VARCHAR2	50	-	-	-	✓	-	-
	ID	NUMBER	22	-	-	1	-	-	-
	DEPT_ID	NUMBER	22	-	-	-	✓	-	-
1 - 3									

Add a foreign key reference on the EMP table  
that ensures that the employee is not assigned to nonexistent department. Name the constraint

```
ALTER TABLE EMPSS
ADD CONSTRAINT my_emp_dept_id_fk
FOREIGN KEY (DEPT_ID)
REFERENCES DEPTS(ID);
```

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(2,2);
```

Object Type	TABLE	Object	<b>EMPSSS</b>						
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
<b>EMPSSS</b>	<u>NAME</u>	VARCHAR2	50	-	-	-	✓	-	-
	<u>ID</u>	NUMBER	22	-	-	1	-	-	-
	<u>DEPT_ID</u>	NUMBER	22	-	-	-	✓	-	-
	<u>COMMISSION</u>	NUMBER	-	2	2	-	✓	-	-
									1 - 4

```
ALTER TABLE EMP ADD CONSTRAINT chk_commission_positive CHECK (COMMISSION > 0);
```

Object Type	TABLE	Object	EMPSS						
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPSS	NAME	VARCHAR2	50	-	-	-	✓	-	-
	ID	NUMBER	22	-	-	1	-	-	-
	DEPT_ID	NUMBER	22	-	-	-	✓	-	-
	COMMISSION	NUMBER	-	2	2	-	✓	-	-
									1 - 4