

Ex. No:4  
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## 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
<u>EMPSS</u>	<u>NAME</u>	VARCHAR2	50	-	-	-	✓	-	-
	<u>ID</u>	NUMBER	22	-	-	1	-	-	-
									1 - 2

2. Create a PRIMAY 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
<u>DEPTS</u>	<u>NAME</u>	VARCHAR2	50	-	-	-	✓	-	-
	<u>ID</u>	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
<u>EMPSS</u>	<u>NAME</u>	VARCHAR2	50	-	-	-	✓	-	-
	<u>ID</u>	NUMBER	22	-	-	1	-	-	-
	<u>DEPT_ID</u>	NUMBER	22	-	-	-	✓	-	-
									1 - 3

4. 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 EMPSS**

**ADD CONSTRAINT my\_emp\_dept\_id\_fk**

**FOREIGN KEY (DEPT\_ID)**

**REFERENCES DEPTS(ID);**

5. 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 **EMPSS**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
<u>EMPSS</u>	<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);**

