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COMPUTER SCIENCE AND ENGINEERING

Exp no: 04 WORKING WITH CONSTRAINTS

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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);

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 colum. 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>	NAME	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	-	-	-		
	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

my_emp_dept_id_fk.

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

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

Object Type	e 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	-	-	-
	DEPT_ID	NUMBER	22	-	-	-	~	-	-
	COMMISSION	NUMBER	-	2	2	-	~	-	-
								1	- 4