

1. Create a table “manager” and add records of those employees who are managers from table emp.

```
CREATE TABLE manager
AS
SELECT * from emp
WHERE job like 'MANAGER'
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	04/02/1981	2975	-	20
7698	BLAKE	MANAGER	7839	05/01/1981	2850	-	30
7782	CLARK	MANAGER	7839	06/09/1981	2450	-	10

2. create a table dept10 and add the records of those employees who belong to dept10 in emp.

```
CREATE TABLE dept10
AS
SELECT * from emp
WHERE deptno=10
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7782	CLARK	MANAGER	7839	06/09/1981	2450	-	10
7839	KING	PRESIDENT	-	11/17/1981	5000	-	10

3. Change the column heading ename into 'employee name' and job into designation.

```
alter table emp
rename column ename to "Employee Name"
```

```
alter table emp
rename column job to "designation"
```

EMPNO	Employee Name	designation	MGR	HIREDATE	SAL	COMM	DEPTNO
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7369	SMITH	CLERK	7902	12/17/1980	800	-	20
7499	ALLEN	SALESMAN	7698	02/20/1981	1600	300	30
7521	WARD	SALESMAN	7698	02/22/1981	1250	500	30
7566	JONES	MANAGER	7839	04/02/1981	2975	-	20
7654	MARTIN	SALESMAN	7698	09/28/1981	1250	1400	30
7698	BLAKE	MANAGER	7839	05/01/1981	2850	-	30
7782	CLARK	MANAGER	7839	06/09/1981	2450	-	10
7788	SCOTT	ANALYST	7566	12/09/1982	3000	-	20

4. Add a constraint in emp table that will make the empno as Primary key.

ALTER TABLE emp

ADD CONSTRAINT empno_pk PRIMARY KEY (empno);

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
<u>EMP</u>	<u>EMPNO</u>	NUMBER	-	4	0	1	-	-	-
	<u>ENAME</u>	VARCHAR2	10	-	-	-	✓	-	-
	<u>JOB</u>	VARCHAR2	9	-	-	-	✓	-	-
	<u>MGR</u>	NUMBER	-	4	0	-	✓	-	-
	<u>HIREDATE</u>	DATE	7	-	-	-	✓	-	-
	<u>SAL</u>	NUMBER	-	7	2	-	✓	-	-
	<u>COMM</u>	NUMBER	-	7	2	-	✓	-	-
	<u>DEPTNO</u>	NUMBER	-	2	0	-	✓	-	-

5. Disable the above added constraint.

```
ALTER TABLE emp
DROP primary key
```

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
<u>EMP</u>	<u>EMPNO</u>	NUMBER	-	4	0	-	-	-	-
	<u>ENAME</u>	VARCHAR2	10	-	-	-	✓	-	-
	<u>JOB</u>	VARCHAR2	9	-	-	-	✓	-	-
	<u>MGR</u>	NUMBER	-	4	0	-	✓	-	-
	<u>HIREDATE</u>	DATE	7	-	-	-	✓	-	-
	<u>SAL</u>	NUMBER	-	7	2	-	✓	-	-
	<u>COMM</u>	NUMBER	-	7	2	-	✓	-	-
	<u>DEPTNO</u>	NUMBER	-	2	0	-	✓	-	-

6. Change the name of the table emp as "EMPLOYEE"

```
ALTER TABLE emp
RENAME TO "EMPLOYEE"
```

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
<u>EMPLOYEE</u>	<u>EMPNO</u>	NUMBER	-	4	0	-	-	-	-
	<u>ENAME</u>	VARCHAR2	10	-	-	-	✓	-	-
	<u>JOB</u>	VARCHAR2	9	-	-	-	✓	-	-

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
	<u>MGR</u>	NUMBER	-	4	0	-	✓	-	-
	<u>HIREDATE</u>	DATE	7	-	-	-	✓	-	-
	<u>SAL</u>	NUMBER	-	7	2	-	✓	-	-
	<u>COMM</u>	NUMBER	-	7	2	-	✓	-	-
	<u>DEPTNO</u>	NUMBER	-	2	0	-	✓	-	-

7. Add a new column “MgrName” in emp table.

```
alter table emp
add (MgrName VARCHAR2(10))
```

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
<u>EMP</u>	<u>EMPNO</u>	NUMBER	-	4	0	-	-	-	-
	<u>ENAME</u>	VARCHAR2	10	-	-	-	✓	-	-
	<u>JOB</u>	VARCHAR2	9	-	-	-	✓	-	-
	<u>MGR</u>	NUMBER	-	4	0	-	✓	-	-
	<u>HIREDATE</u>	DATE	7	-	-	-	✓	-	-
	<u>SAL</u>	NUMBER	-	7	2	-	✓	-	-
	<u>COMM</u>	NUMBER	-	7	2	-	✓	-	-
	<u>DEPTNO</u>	NUMBER	-	2	0	-	✓	-	-
	<u>MGRNAME</u>	VARCHAR2	10	-	-	-	✓	-	-

8. Update the MgrName with the manager name of each employee.

```
UPDATE emp
SET mgrname = m.ename
FROM emp e JOIN emp m
ON (e.mgr=m.empno)
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	MGRNAME
7369	SMITH	CLERK	7902	12/17/1980	800	-	20	FORD
7499	ALLEN	SALESMAN	7698	02/20/1981	1600	300	30	BLAKE
7521	WARD	SALESMAN	7698	02/22/1981	1250	500	30	BLAKE

9. Create a table as

Table Name: Student	
Col Name	Constraints
RegNo	Primary Key
SName	Not Null
Program	Can be 'BS', 'BBA', or 'BA'
NIC	Unique

```
create table STUDENT
(
  REQNO Number(4) primary key,
```

SNAME VARCHAR2(10) NOT NULL,
 PROGRAM VARCHAR2(4) CHECK (PROGRAM IN('BS','BBA','BA')),
 NIC Number(13)
)

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
<u>STUDENT</u>	<u>REQNO</u>	NUMBER	-	4	0	1	-	-	-
	<u>SNAME</u>	VARCHAR2	10	-	-	-	-	-	-
	<u>PROGRAM</u>	VARCHAR2	4	-	-	-	✓	-	-
	<u>NIC</u>	NUMBER	-	13	0	-	✓	-	-

10. create a new table(using subquery) of all the salesman and add 367\$ in their salary.

Using 2 queries

1) CREATE TABLE salesman
 AS SELECT * from emp
 WHERE job like 'SALESMAN'

2) UPDATE salesman
 SET sal=sal+367

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	MGRNAME
7499	ALLEN	SALESMAN	7698	02/20/1981	1967	300	30	-
7521	WARD	SALESMAN	7698	02/22/1981	1617	500	30	-
7654	MARTIN	SALESMAN	7698	09/28/1981	1617	1400	30	-
7844	TURNER	SALESMAN	7698	09/08/1981	1867	0	30	-

11. Add a new employee in emp table.

(7950, Rashid, Vice President, 7839,9/26/1999,4379,1392,40)

```
insert into emp( empno,ename,job,mgr,hiredate,sal,comm,deptno)
values (7950,'Rashid','Vice President',7839,TO_DATE ('Sep 26 1999','Mon dd
yyyy'),4379,1392,40)
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	MGRNAME
7950	Rashid	Vice President	7839	09/26/1999	4379	1392	40	-
7369	SMITH	CLERK	7902	12/17/1980	800	-	20	-
7499	ALLEN	SALESMAN	7698	02/20/1981	1600	300	30	-
7521	WARD	SALESMAN	7698	02/22/1981	1250	500	30	-
7566	JONES	MANAGER	7839	04/02/1981	2975	-	20	-
7654	MARTIN	SALESMAN	7698	09/28/1981	1250	1400	30	-
7698	BLAKE	MANAGER	7839	05/01/1981	2850	-	30	-
7782	CLARK	MANAGER	7839	06/09/1981	2450	-	10	-
7788	SCOTT	ANALYST	7566	12/09/1982	3000	-	20	-
7839	KING	PRESIDENT	-	11/17/1981	5000	-	10	-

12. update the previous table with salary as 4869.

```
update emp
set sal=4869
where ename='Rashid'
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	MGRNAME
7950	Rashid	Vice President	7839	09/26/1999	4869	1392	40	-
7369	SMITH	CLERK	7902	12/17/1980	800	-	20	-
7499	ALLEN	SALESMAN	7698	02/20/1981	1600	300	30	-

7521	WARD	SALESMAN	7698	02/22/1981	1250	500	30	-
7566	JONES	MANAGER	7839	04/02/1981	2975	-	20	-
7654	MARTIN	SALESMAN	7698	09/28/1981	1250	1400	30	-
7698	BLAKE	MANAGER	7839	05/01/1981	2850	-	30	-
7782	CLARK	MANAGER	7839	06/09/1981	2450	-	10	-
7788	SCOTT	ANALYST	7566	12/09/1982	3000	-	20	-
7839	KING	PRESIDENT	-	11/17/1981	5000	-	10	-

13. suppose that employees having salary less than 2500 have been resigned. So you have to discard (remove) them from emp table.

delete from emp
where sal<2500

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	
7950	Rashid	Vice President	7839	09/26/1999	4869	1392	40	
7566	JONES	MANAGER	7839	04/02/1981	2975	-	20	
7698	BLAKE	MANAGER	7839	05/01/1981	2850	-	30	
7788	SCOTT	ANALYST	7566	12/09/1982	3000	-	20	
7839	KING	PRESIDENT	-	11/17/1981	5000	-	10	
7902	FORD	ANALYST	7566	12/03/1981	3000	-	20	

14. Create a table of your class with (Roll Number, Name, Degree, Semester , GPA,) and insert dummy values minimum 5 rows in it. (considering all the constraints).

i)
create table class
(
Roll_Number char(10) primary key,


```
Name VARCHAR2(10) NOT NULL,  
DEGREE VARCHAR2(4) CHECK (DEGREE IN('BSCS','BSSE','BSIT')),  
GPA Number(7,2) CHECK(GPA > 0 AND GPA <= 4.0)  
)
```

```
ii)  
insert into class  
values ('bcsf18m005','Umer','BSIT',4.0)
```

ROLL_NUMBER	NAME	DEGREE	GPA
bcsf18m001	HUMZA	BSCS	3.02
bcsf18m002	ali	BSCS	2.1
bcsf18m003	Riaz	BSSE	3
bcsf18m004	Bilal	BSSE	1
bcsf18m005	Umer	BSIT	4

15. delete the data of above inserted table. Make sure to only deleting the internal data not entire table.

```
delete from class
```

```
select * from class  
no data found
```