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 |

1. **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 |

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

alter table emp

rename column ename to "Enmployee Name"

alter table emp

rename column job to "designation"

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **Enmployee Name** | **designation** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 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 |

1. **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** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [EMP](javascript:ret_Column('BCSF18M027.EMP');) | [EMPNO](javascript:ret_Column('EMPNO');) | NUMBER | - | 4 | 0 | 1 | - | - | - |
|  | [ENAME](javascript:ret_Column('ENAME');) | VARCHAR2 | 10 | - | - | - | nullable | - | - |
|  | [JOB](javascript:ret_Column('JOB');) | VARCHAR2 | 9 | - | - | - | nullable | - | - |
|  | [MGR](javascript:ret_Column('MGR');) | NUMBER | - | 4 | 0 | - | nullable | - | - |
|  | [HIREDATE](javascript:ret_Column('HIREDATE');) | DATE | 7 | - | - | - | nullable | - | - |
|  | [SAL](javascript:ret_Column('SAL');) | NUMBER | - | 7 | 2 | - | nullable | - | - |
|  | [COMM](javascript:ret_Column('COMM');) | NUMBER | - | 7 | 2 | - | nullable | - | - |
|  | [DEPTNO](javascript:ret_Column('DEPTNO');) | NUMBER | - | 2 | 0 | - | nullable | - | - |

1. **Disable the above added constraint.**

ALTER TABLE emp

DROP primary key

| **Table** | **Column** | **Data Type** | **Length** | **Precision** | **Scale** | **Primary Key** | **Nullable** | **Default** | **Comment** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [EMP](javascript:ret_Column('BCSF18M027.EMP');) | [EMPNO](javascript:ret_Column('EMPNO');) | NUMBER | - | 4 | 0 | - | - | - | - |
|  | [ENAME](javascript:ret_Column('ENAME');) | VARCHAR2 | 10 | - | - | - | nullable | - | - |
|  | [JOB](javascript:ret_Column('JOB');) | VARCHAR2 | 9 | - | - | - | nullable | - | - |
|  | [MGR](javascript:ret_Column('MGR');) | NUMBER | - | 4 | 0 | - | nullable | - | - |
|  | [HIREDATE](javascript:ret_Column('HIREDATE');) | DATE | 7 | - | - | - | nullable | - | - |
|  | [SAL](javascript:ret_Column('SAL');) | NUMBER | - | 7 | 2 | - | nullable | - | - |
|  | [COMM](javascript:ret_Column('COMM');) | NUMBER | - | 7 | 2 | - | nullable | - | - |
|  | [DEPTNO](javascript:ret_Column('DEPTNO');) | NUMBER | - | 2 | 0 | - | nullable | - | - |

1. **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** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [EMPLOYEE](javascript:ret_Column('BCSF18M027.EMPLOYEE');) | [EMPNO](javascript:ret_Column('EMPNO');) | NUMBER | - | 4 | 0 | - | - | - | - |
|  | [ENAME](javascript:ret_Column('ENAME');) | VARCHAR2 | 10 | - | - | - | nullable | - | - |
|  | [JOB](javascript:ret_Column('JOB');) | VARCHAR2 | 9 | - | - | - | nullable | - | - |
|  | [MGR](javascript:ret_Column('MGR');) | NUMBER | - | 4 | 0 | - | nullable | - | - |
|  | [HIREDATE](javascript:ret_Column('HIREDATE');) | DATE | 7 | - | - | - | nullable | - | - |
|  | [SAL](javascript:ret_Column('SAL');) | NUMBER | - | 7 | 2 | - | nullable | - | - |
|  | [COMM](javascript:ret_Column('COMM');) | NUMBER | - | 7 | 2 | - | nullable | - | - |
|  | [DEPTNO](javascript:ret_Column('DEPTNO');) | NUMBER | - | 2 | 0 | - | nullable | - | - |

1. **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** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [EMP](javascript:ret_Column('BCSF18M027.EMP');) | [EMPNO](javascript:ret_Column('EMPNO');) | NUMBER | - | 4 | 0 | - | - | - | - |
|  | [ENAME](javascript:ret_Column('ENAME');) | VARCHAR2 | 10 | - | - | - | nullable | - | - |
|  | [JOB](javascript:ret_Column('JOB');) | VARCHAR2 | 9 | - | - | - | nullable | - | - |
|  | [MGR](javascript:ret_Column('MGR');) | NUMBER | - | 4 | 0 | - | nullable | - | - |
|  | [HIREDATE](javascript:ret_Column('HIREDATE');) | DATE | 7 | - | - | - | nullable | - | - |
|  | [SAL](javascript:ret_Column('SAL');) | NUMBER | - | 7 | 2 | - | nullable | - | - |
|  | [COMM](javascript:ret_Column('COMM');) | NUMBER | - | 7 | 2 | - | nullable | - | - |
|  | [DEPTNO](javascript:ret_Column('DEPTNO');) | NUMBER | - | 2 | 0 | - | nullable | - | - |
|  | [MGRNAME](javascript:ret_Column('MGRNAME');) | VARCHAR2 | 10 | - | - | - | nullable | - | - |

1. **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 |

1. **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** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [STUDENT](javascript:ret_Column('BCSF18M027.STUDENT');) | [REQNO](javascript:ret_Column('REQNO');) | NUMBER | - | 4 | 0 | 1 | - | - | - |
|  | [SNAME](javascript:ret_Column('SNAME');) | VARCHAR2 | 10 | - | - | - | - | - | - |
|  | [PROGRAM](javascript:ret_Column('PROGRAM');) | VARCHAR2 | 4 | - | - | - | nullable | - | - |
|  | [NIC](javascript:ret_Column('NIC');) | NUMBER | - | 13 | 0 | - | nullable | - |  |

1. **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'

1. 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 | - |

1. **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 | - |

1. **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 | - |

1. **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 |  |

1. **Create a table of your class with (Roll Number, Name, Degree, Samester , 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 |

1. **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