
Example No 2b : College :

SNO (Primary key) Number(4)	SNAME Varchar2(20)	Year Char (15)	DOA (Date of Admission) Date	PCM Marks (PCM) Number(3)	SM (Sports Marks) Number(3)	DEPTNO Number(2)
7369	adams	First	01-jun-08	275		20
7499	brooks	Second	01-Jun-07	265		30
7521	curry	Second	01-Jun-07	255		30
7566	glenn	Third	01-jun-06	215		20
7654	green	Second	01-Jun-07	220		30
7698	hayes	Third	01-jun-06	235		30
7782	johnson	Third	01-jun-06	290		10
7783	jones	Third	01-jun-06	189		20
7839	lindsay	Final	01-jun-05	175		10
7844	smith	Second	01-Jun-07	263		30
7876	turner	First	01-jun-08	285		20
7900	williams	First	01-jun-08	253		30
7902	adams	Third	01-Jun-06	274		20
7934	brooks	First	01-jun-08	167		10

Department : -

DEPT NO Primary key Number(2)	DNAME Varchar2(20)
10	Computer
20	Electronics
30	Civil
40	Chemical

Write SQL statement with Output for the following:

1. **Create College and Department table with above mentioned schema.**

```
CREATE TABLE Department (
   DEPTNO INT PRIMARY KEY,
   DNAME VARCHAR(20)
);

CREATE TABLE College (
   SNO INT PRIMARY KEY,
   SNAME VARCHAR(20),
   YEAR VARCHAR(15),
   DOA DATE,
   PCM INT,
   SM INT,
   DEPTNO INT,
   FOREIGN KEY (DEPTNO) REFERENCES Department(DEPTNO)
);
```

2. **Insert all tuples in both the tables.**

```
INSERT INTO Department VALUES
(10, 'Computer'),
```

```
(20, 'Electronics'),
(30, 'Civil'),
(40, 'Chemical');

INSERT INTO College VALUES
(7369, 'adams', 'First', '2008-06-01', 275,  NULL, 20),
(7499, 'brooks', 'Second', '2007-06-01', 265, NULL, 10),
(7521, 'curry', 'Second', '2007-06-01', 255,  NULL, 30),
(7566, 'glenn', 'Third', '2006-06-01', 215,  NULL, 20),
(7654, 'green', 'Second', '2007-06-01', 220,  NULL, 30),
(7698, 'hayes', 'Third', '2006-06-01', 235,  NULL, 30),
(7782, 'johnson', 'Third', '2006-06-01', 290, NULL, 20),
(7783, 'jones', 'Third', '2006-06-01', 189,  NULL, 20),
(7839, 'lindsay', 'Final', '2005-06-01', 175, NULL, 10),
(7844, 'smith', 'Second', '2007-06-01', 263, NULL, 30),
(7876, 'turner', 'First', '2008-06-01', 285, NULL, 20),
(7900, 'williams', 'First', '2008-06-01', 253, NULL, 30),
(7902, 'adams', 'Third', '2006-06-01', 274, NULL, 20),
(7934, 'brooks', 'First', '2008-06-01', 167, NULL, 10);
```

3. **Modify the width of SM to number (4) college table.**
   ALTER TABLE College MODIFY SM INT(4);

4. **Modify the SM attribute value by 10 to students related to department 20.**
   UPDATE College SET SM = 10 WHERE DEPTNO = 20;

5. **List the names of second year students for the department 10.**
   SELECT SName FROM College
   -> WHERE Year = 'Second' AND DEPTNO = 10;

6. **Display name of the names of students ending with char ‘s’.**
   SELECT Sname FROM College
   -> WHERE Sname LIKE '%s';

7. **List the name, PCM marks, and percentage of all students.**
   SELECT SName, PCM, (PCM/3) AS Percentage FROM College;

8. **List the Different department nos present in college table.**
   SELECT DISTINCT DEPTNO FROM College;

9. **List the Names of Employee ending with ‘N’.**
   SELECT Sname FROM College
   -> WHERE Sname Like '%N';

10. **List the Student Name and DOA who have taken admission after 01-Jun-07 and before 01-Jun-08.**
    SELECT Sname, DOA FROM College
    -> WHERE DOA > '2007-06-01' AND DOA < '2008-06-01' ;

11. **List the total pcm, highest pcm and average pcm of students deptno wise for the department no 20 and display only those rows having average pcm grater than 250 and arrange the result in ascending order of the total pcm.**

```
SELECT DEPTNO, SUM(PCM) as totalpcm, MAX(PCM) as highestpcm, AVG(PCM) as
avgpcm FROM College
   -> WHERE DEPTNO = 20
   -> GROUP BY DEPTNO
   -> HAVING avgpcm > 250
   -> ORDER BY totalpcm ASC;
```

12. Display the student name, year, deptno, Name of the department all students.

```
SELECT D.DEPTNO, D.DNAME, C.SNAME, C.YEAR
   -> FROM DEPARTMENT D
   -> LEFT JOIN COLLEGE C ON D.DEPTNO = C.DEPTNO;
```

13. List the names of students belonging to department of ‘Smith’.

```
SELECT SNAME FROM College
   -> WHERE DEPTNO = (SELECT DEPTNO FROM COLLEGE where SNAME = 'Smith');
```

14. Create a new View with three attributes sno, sname, pcm marks.

```
CREATE VIEW StudentView AS
SELECT SNO, SNAME, PCM
FROM College;
```

15. List common years in department no 10 and 20.

```
SELECT DISTINCT YEAR FROM COLLEGE
   -> WHERE DEPTNO IN (10,20);
```