DBT Problem Solving - Set - 001

Feb19/ DBT-PS/ 001

Database Technologies

Diploma in Advance Computing

February 2019

***DEPT Table:***

|  |  |  |
| --- | --- | --- |
| **DEPTNO** | **DNAME** | **LOC** |
| 10 | ACCOUNTING | NEW YORK |
| 20 | RESEARCH | DALLAS |
| 30 | SALES | CHICAGO |
| 40 | OPERATIONS | BOSTON |

***EMP Table:***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800 | NULL | 20 |
| 7415 | AARAV | CLERK | 7901 | 1981-12-31 | 3350 | NULL | 10 |
| 7421 | THOMAS | CLERK | 7920 | 1981-07-19 | 1750 | NULL | 10 |
| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600 | 300 | 30 |
| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250 | 500 | 30 |
| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975 | NULL | 20 |
| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250 | 1400 | 30 |
| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850 | NULL | 30 |
| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2405 | NULL | 10 |
| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000 | NULL | 20 |
| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000 | NULL | 10 |

The relation between DEPT & EMP table is one-to-many.

Given the above tables solve the following queries.

1. **Write a query that display employee number, name and his department name for all the employees.**

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1. **Write SQL statement which will display employee details who are working as ‘manager’ having salary more than 2500.**

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1. **Write SQL statement which will display all unique job types.**

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1. **Write SQL statement which will display the second highest salary.**

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1. **Write SQL statement that displays employee name and his job who are working in the same job as ‘Jones’ is working excluding ‘Jones’ name.**

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1. **Write SQL statement that print all employee details whose salary is more than the average salary of department number 20;**

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1. **Write the SQL statement which displays all the employee details that were hired in the month of ‘December’.**

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1. **Write SQL statement which displays the employee name and his department name who are not receiving commission.**

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1. **Write SQL statement that displays all employee names his job type, on which date he was hired with his salary and his department name who are working in 'SALES' department.**

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1. **Increate the salaries of all employee by 10%, 15%, and 20% for deptno 10, 20, and 30 respectively.**

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1. **Write SQL statement which displays the employee name with their manager’s name and give proper headings.**

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1. **Write SQL statement to display all the employees who are not managers.**

**Note: (MGR field contains manager’s number).**

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1. **Write SQL statement which counts how many employees are working in ‘**RESEARCH**’ department.**

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1. **Write SQL statement which displays the employee name whose manager is ‘BLAKE’, arrange the employee name in ascending order.**

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1. **Write SQL statement that displays employee information and his department details also print those department details were no employees are working.**

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ANSWERS.

1. **Select empno, ename, dname from emp, dept where emp.deptno = dept.deptno;**
2. **Select \* from emp where job='manager' and sal > 2500;**
3. **Select distinct job from emp;**
4. **Select max(sal) from emp where sal < (select max(sal) from emp);**

**Select sal from EMP group by sal order by sal desc limit 1, 1;**

1. **Select ename, job from emp where job = (select job from emp where ename='Jones') and ename <>'Jones';**
2. **Select \* from emp where sal > (select avg(sal) from emp where deptno=20);**
3. **Select \* from emp where monthname(hiredate) = 'December';**
4. **Select ename, dname from emp inner join dept using(deptno) where comm is null;**
5. **Select \* from emp, dept where emp.deptno = dept.deptno and dname='sales';**
6. **update e set sal = case sal when 10 then sal + sal \*.10 when 20 then sal + sal \*.15 else sal + sal \*.20 end ;**
7. **Select e.ename "Employees Name", m.ename "Managers Name" from emp m, emp e where e.mgr = m.empno;**
8. **Select ename from emp e where not exists (select \* from emp m where e.empno = m.mgr);**
9. **Select count(\*) from emp, dept where emp.deptno = dept.deptno and dname=** ‘RESEARCH’**;**
10. **Select e.ename “Employee Name” from emp e, emp m where e.mgr = m.empno and m.ename = 'BLAKE' order by 1;**
11. **Select \* from emp right outer join dept on emp.deptno = dept.deptno;**