**SQL Assignment:**

**Answers:**

1. Display unique Jobs from EMP table:

    select  distinct job from emp;

|  |
| --- |
| **JOB** |
| ANALYST |
| CLERK |
| SALESMAN |
| MANAGER |
| PRESIDENT |

2. List the employees in the ascending order of their salaries

select  \* from emp  order by sal asc;

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7369 | SMITH | CLERK | 7902 | 17-DEC-80 | 800 | - | 20 |
| 7900 | JAMES | CLERK | 7698 | 03-DEC-81 | 950 | - | 30 |
| 7876 | ADAMS | CLERK | 7788 | 23-MAY-87 | 1100 | - | 20 |
| 7654 | MARTIN | SALESMAN | 7698 | 28-SEP-81 | 1250 | 1400 | 30 |
| 7521 | WARD | SALESMAN | 7698 | 22-FEB-81 | 1250 | 500 | 30 |
| 7934 | MILLER | CLERK | 7782 | 23-JAN-82 | 1300 | - | 10 |
| 7844 | TURNER | SALESMAN | 7698 | 08-SEP-81 | 1500 | 0 | 30 |
| 7499 | ALLEN | SALESMAN | 7698 | 20-FEB-81 | 1600 | 300 | 30 |
| 7782 | CLARK | MANAGER | 7839 | 09-JUN-81 | 2450 | - | 10 |
| 7698 | BLAKE | MANAGER | 7839 | 01-MAY-81 | 2850 | - | 30 |
| 7566 | JONES | MANAGER | 7839 | 02-APR-81 | 2975 | - | 20 |
| 7902 | FORD | ANALYST | 7566 | 03-DEC-81 | 3000 | - | 20 |
| 7788 | SCOTT | ANALYST | 7566 | 19-APR-87 | 3000 | - | 20 |
| 7839 | KING | PRESIDENT | - | 17-NOV-81 | 5000 | - | 10 |

3. List the details of the employees in ascending order of the dept no and descending of Jobs

select \* from emp order by deptno asc,job desc;

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** |  | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7839 | KING | PRESIDENT | - |  | 17-NOV-81 | 5000 | - | 10 |
| 7782 | CLARK | MANAGER | 7839 |  | 09-JUN-81 | 2450 | - | 10 |
| 7934 | MILLER | CLERK | 7782 |  | 23-JAN-82 | 1300 | - | 10 |
| 7566 | JONES | MANAGER | 7839 |  | 02-APR-81 | 2975 | - | 20 |
| 7369 | SMITH | CLERK | 7902 |  | 17-DEC-80 | 800 | - | 20 |
| 7876 | ADAMS | CLERK | 7788 |  | 23-MAY-87 | 1100 | - | 20 |
| 7902 | FORD | ANALYST | 7566 |  | 03-DEC-81 | 3000 | - | 20 |
| 7788 | SCOTT | ANALYST | 7566 |  | 19-APR-87 | 3000 | - | 20 |
| 7499 | ALLEN | SALESMAN | 7698 |  | 20-FEB-81 | 1600 | 300 | 30 |
| 7521 | WARD | SALESMAN | 7698 |  | 22-FEB-81 | 1250 | 500 | 30 |
| 7654 | MARTIN | SALESMAN | 7698 |  | 28-SEP-81 | 1250 | 1400 | 30 |
| 7844 | TURNER | SALESMAN | 7698 |  | 08-SEP-81 | 1500 | 0 | 30 |
| 7698 | BLAKE | MANAGER | 7839 |  | 01-MAY-81 | 2850 | - | 30 |
| 7900 | JAMES | CLERK | 7698 |  | 03-DEC-81 | 950 | - | 30 |

4. Display all the unique job groups in the descending order

select distinct job from emp order by job desc;

|  |
| --- |
| **JOB** |
| SALESMAN |
| PRESIDENT |
| MANAGER |
| CLERK |
| ANALYST |

5. Display all the employees who are managers

Select \* from emp where empno in ( select  mgr  from emp) ;

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7839 | KING | PRESIDENT | - | 17-NOV-81 | 5000 | - | 10 |
| 7566 | JONES | MANAGER | 7839 | 02-APR-81 | 2975 | - | 20 |
| 7902 | FORD | ANALYST | 7566 | 03-DEC-81 | 3000 | - | 20 |
| 7698 | BLAKE | MANAGER | 7839 | 01-MAY-81 | 2850 | - | 30 |
| 7788 | SCOTT | ANALYST | 7566 | 19-APR-87 | 3000 | - | 20 |
| 7782 | CLARK | MANAGER | 7839 | 09-JUN-81 | 2450 | - | 10 |

6. List the employees who joined before 1981

select \* from emp where hiredate < '01-jan-81';

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7369 | SMITH | CLERK | 7902 | 17-DEC-80 | 800 | - | 20 |

7. List the Empno, Ename, Sal, daily sal of all employees in the ascending order of annual sal

select empno ,ename ,sal,sal/30,12\*sal annsal from emp order by annsal asc;

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **SAL** | **SAL/30** | **ANNSAL** |
| 7369 | SMITH | 800 | 26.66666666666666666666666666666666666667 | 9600 |
| 7900 | JAMES | 950 | 31.66666666666666666666666666666666666667 | 11400 |
| 7876 | ADAMS | 1100 | 36.66666666666666666666666666666666666667 | 13200 |
| 7654 | MARTIN | 1250 | 41.66666666666666666666666666666666666667 | 15000 |
| 7521 | WARD | 1250 | 41.66666666666666666666666666666666666667 | 15000 |
| 7934 | MILLER | 1300 | 43.33333333333333333333333333333333333333 | 15600 |
| 7844 | TURNER | 1500 | 50 | 18000 |
| 7499 | ALLEN | 1600 | 53.33333333333333333333333333333333333333 | 19200 |
| 7782 | CLARK | 2450 | 81.66666666666666666666666666666666666667 | 29400 |
| 7698 | BLAKE | 2850 | 95 | 34200 |
| 7566 | JONES | 2975 | 99.16666666666666666666666666666666666667 | 35700 |
| 7902 | FORD | 3000 | 100 | 36000 |
| 7788 | SCOTT | 3000 | 100 | 36000 |
| 7839 | KING | 5000 | 166.666666666666666666666666666666666667 | 60000 |

8. Display the Empno, Ename, job, Hiredate, Exp of all Mgrs

select  empno,ename ,job,hiredate, months\_between(sysdate,hiredate)  exp from emp where empno in (select mgr from emp);

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **HIREDATE** | **EXP** |
| 7839 | KING | PRESIDENT | 17-NOV-81 | 461.498673835125448028673835125448028674 |
| 7566 | JONES | MANAGER | 02-APR-81 | 468.982544802867383512544802867383512545 |
| 7902 | FORD | ANALYST | 03-DEC-81 | 460.950286738351254480286738351254480287 |
| 7698 | BLAKE | MANAGER | 01-MAY-81 | 468 |
| 7788 | SCOTT | ANALYST | 19-APR-87 | 396.434157706093189964157706093189964158 |
| 7782 | CLARK | MANAGER | 09-JUN-81 | 466.756738351254480286738351254480286738 |

9. List the Empno, Ename, Sal, experience of all employees working for Mgr=7369

select empno,ename,sal,exp from emp where mgr = 7369;

**No data found**

10. Display all the details of the employees whose Comm. Is more than their Sal

select \* from emp where comm > sal;

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7654 | MARTIN | SALESMAN | 7698 | 28-SEP-81 | 1250 | 1400 | 30 |

11. List the employees in the asc order of Designations of those joined after the second half of 1981

select \* from emp where hiredate > (’30-jun-81’) order by job asc;

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7788 | SCOTT | ANALYST | 7566 | 19-APR-87 | 3000 | - | 20 |
| 7902 | FORD | ANALYST | 7566 | 03-DEC-81 | 3000 | - | 20 |
| 7900 | JAMES | CLERK | 7698 | 03-DEC-81 | 950 | - | 30 |
| 7934 | MILLER | CLERK | 7782 | 23-JAN-82 | 1300 | - | 10 |
| 7876 | ADAMS | CLERK | 7788 | 23-MAY-87 | 1100 | - | 20 |
| 7839 | KING | PRESIDENT | - | 17-NOV-81 | 5000 | - | 10 |
| 7844 | TURNER | SALESMAN | 7698 | 08-SEP-81 | 1500 | 0 | 30 |
| 7654 | MARTIN | SALESMAN | 7698 | 28-SEP-81 | 1250 | 1400 | 30 |

12. List the employees along with their experience and daily salary is more than Rs.100

select \* from emp where (sal/30) >100;

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7839 | KING | PRESIDENT | - | 17-NOV-81 | 5000 | - | 10 |

13. List the employees who are either ‘CLERK’ or ‘ANALYST’ in the Desc order

select \* from emp where job = 'CLERK' or job = 'ANALYST' order by job desc;

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7369 | SMITH | CLERK | 7902 | 17-DEC-80 | 800 | - | 20 |
| 7900 | JAMES | CLERK | 7698 | 03-DEC-81 | 950 | - | 30 |
| 7934 | MILLER | CLERK | 7782 | 23-JAN-82 | 1300 | - | 10 |
| 7876 | ADAMS | CLERK | 7788 | 23-MAY-87 | 1100 | - | 20 |
| 7902 | FORD | ANALYST | 7566 | 03-DEC-81 | 3000 | - | 20 |
| 7788 | SCOTT | ANALYST | 7566 | 19-APR-87 | 3000 | - | 20 |

14. List the employees who joined on 1-MAY-81,3-DEC-81,17-DEC-81,19-JAN-80 in asc order of seniority

select \* from emp where hiredate in ('01-may-81','03-dec-81', '17-dec-81', '19-jan-80') order by hiredate asc;

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7698 | BLAKE | MANAGER | 7839 | 01-MAY-81 | 2850 | - | 30 |
| 7900 | JAMES | CLERK | 7698 | 03-DEC-81 | 950 | - | 30 |
| 7902 | FORD | ANALYST | 7566 | 03-DEC-81 | 3000 | - | 20 |

15. List the emp who are working for the Deptno 10 or 20

select \* from emp where deptno = 10  or deptno = 20 ;

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7839 | KING | PRESIDENT | - | 17-NOV-81 | 5000 | - | 10 |
| 7782 | CLARK | MANAGER | 7839 | 09-JUN-81 | 2450 | - | 10 |
| 7566 | JONES | MANAGER | 7839 | 02-APR-81 | 2975 | - | 20 |
| 7788 | SCOTT | ANALYST | 7566 | 19-APR-87 | 3000 | - | 20 |
| 7902 | FORD | ANALYST | 7566 | 03-DEC-81 | 3000 | - | 20 |
| 7369 | SMITH | CLERK | 7902 | 17-DEC-80 | 800 | - | 20 |
| 7876 | ADAMS | CLERK | 7788 | 23-MAY-87 | 1100 | - | 20 |
| 7934 | MILLER | CLERK | 7782 | 23-JAN-82 | 1300 | - | 10 |

16. List the employees who are joined in the year ‘81

select \* from emp where hiredate between '01-jan-81' and '31-dec-81';

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7839 | KING | PRESIDENT | - | 17-NOV-81 | 5000 | - | 10 |
| 7698 | BLAKE | MANAGER | 7839 | 01-MAY-81 | 2850 | - | 30 |
| 7782 | CLARK | MANAGER | 7839 | 09-JUN-81 | 2450 | - | 10 |
| 7566 | JONES | MANAGER | 7839 | 02-APR-81 | 2975 | - | 20 |
| 7902 | FORD | ANALYST | 7566 | 03-DEC-81 | 3000 | - | 20 |
| 7499 | ALLEN | SALESMAN | 7698 | 20-FEB-81 | 1600 | 300 | 30 |
| 7521 | WARD | SALESMAN | 7698 | 22-FEB-81 | 1250 | 500 | 30 |
| 7654 | MARTIN | SALESMAN | 7698 | 28-SEP-81 | 1250 | 1400 | 30 |
| 7844 | TURNER | SALESMAN | 7698 | 08-SEP-81 | 1500 | 0 | 30 |
| 7900 | JAMES | CLERK | 7698 | 03-DEC-81 | 950 | - | 30 |

17. List the employees who are joined in the month of Aug 1980

select \* from emp where hiredate between '01-aug-80' and '31-aug-80';

NA

18. List the Enames those are having five characters in their Names

select  ename from emp where  length (ename) = 5;

|  |
| --- |
| **ENAME** |
| BLAKE |
| CLARK |
| JONES |
| SCOTT |
| SMITH |
| ALLEN |
| ADAMS |
| JAMES |

19. List the Enames those are starting with ‘S’ and with five character

select ename from emp where ename like 'S%' and  length (ename) = 5;

|  |
| --- |
| **ENAME** |
| SCOTT |
| SMITH |

20. List the employees those are having four chars and third character must be ‘r’

select  \* from emp where length(ename) = 4 and ename like '\_\_R%';

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7902 | FORD | ANALYST | 7566 | 03-DEC-81 | 3000 | - | 20 |
| 7521 | WARD | SALESMAN | 7698 | 22-FEB-81 | 1250 | 500 | 30 |

21. List the names of those employees whose employee numbers are 7369, 7521, 7839, 7934, 7788.

  select ename  from emp where empno in (7369,7890,7654,7900);

|  |
| --- |
| **ENAME** |
| SMITH |
| MARTIN |
| JAMES |

22. List those employees who do not belonging to department 30, 40, or 10

  select ename  from emp where deptno not in (10,30,40);

|  |
| --- |
| **ENAME** |
| JONES |
| SCOTT |
| FORD |
| SMITH |
| ADAMS |

23. List those employee names who have joined between 30 June and 31 Dec ‘81.

  select ename  from emp where hiredate between '30-June-81' and '31-Dec-81';

|  |
| --- |
| **ENAME** |
| KING |
| FORD |
| MARTIN |
| TURNER |
| JAMES |

24. List the different designations available in the company

  select distinct job from emp;

|  |
| --- |
| **JOB** |
| ANALYST |
| CLERK |
| SALESMAN |
| MANAGER |
| PRESIDENT |

25. List those employees name that are not eligible for commission

  select ename from emp where comm is Null;

|  |
| --- |
| **ENAME** |
| KING |
| BLAKE |
| CLARK |
| JONES |
| SCOTT |
| FORD |
| SMITH |
| ADAMS |
| JAMES |
| MILLER |
|  |
|  |

26. List the name of the employee and designation of the employee who does not report to anybody

  select ename,job from emp where job ='PRESIDENT';

|  |  |
| --- | --- |
| **ENAME** | **JOB** |
| KING | PRESIDENT |
|  |  |
|  |  |

27. List the employees who are eligible for commission

  select ename from emp where comm is not  Null;

|  |
| --- |
| **ENAME** |
| ALLEN |
| WARD |
| MARTIN |
| TURNER |

28. List names of employees if the names have “i” as the second character

select \* from emp where to\_char(ename) like '\_I%';

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7839 | KING | PRESIDENT | - | 17-NOV-81 | 5000 | - | 10 |
| 7934 | MILLER | CLERK | 7782 | 23-JAN-82 | 1300 | - | 10 |

29. Display the names of all employees with their salary and commission earned. Employees with a null commission field should have 0 in **the commission column**

SELECT ENAME, SAL, COMM FROM EMP WHERE JOB ='SALESMAN';

|  |  |  |
| --- | --- | --- |
| **ENAME** | **SAL** | **COMM** |
| ALLEN | 1600 | 300 |
| WARD | 1250 | 500 |
| MARTIN | 1250 | 1400 |
| TURNER | 1500 | 0 |

**Round 2**

1. List the count and average salary for employees in department 20.

select avg(sal) from emp where deptno=20;

|  |
| --- |
| **AVG(SAL)** |
| 2175 |

2. List names of employees who are older than 30 years in the company.

select ENAME  from emp where to\_char(hiredate,'MONTH') >'30';

|  |
| --- |
| **ENAME** |
| KING |
| BLAKE |
| CLARK |
| JONES |
| SCOTT |
| FORD |
| SMITH |
| ALLEN |
| WARD |
| MARTIN |
| TURNER |
| ADAMS |
| JAMES |
| MILLER |

3. List the employee name , hire date in the descending order of the hire date.

select hiredate ,ename from emp order by hiredate desc;

|  |  |
| --- | --- |
| **HIREDATE** | **ENAME** |
| 23-MAY-87 | ADAMS |
| 19-APR-87 | SCOTT |
| 23-JAN-82 | MILLER |
| 03-DEC-81 | FORD |
| 03-DEC-81 | JAMES |
| 17-NOV-81 | KING |
| 28-SEP-81 | MARTIN |
| 08-SEP-81 | TURNER |
| 09-JUN-81 | CLARK |
| 01-MAY-81 | BLAKE |
| 02-APR-81 | JONES |
| 22-FEB-81 | WARD |
| 20-FEB-81 | ALLEN |
| 17-DEC-80 | SMITH |

4. List employee name, salary, PF, HRA, DA and gross; order the results in the ascending order of gross. HRA is 50% of the salary and DA is 30% of the salary.

SELECT ename,  sal,  sal/100\*15 AS hra,  sal/100\*5  AS pf,  sal/100\*10  AS da,  sal+sal/100\*15+sal/100\*10-sal/100\*5 AS total FROM EMP;

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ENAME** | **SAL** | **HRA** | **PF** | **DA** | **TOTAL** |
| KING | 5000 | 750 | 250 | 500 | 6000 |
| BLAKE | 2850 | 427.5 | 142.5 | 285 | 3420 |
| CLARK | 2450 | 367.5 | 122.5 | 245 | 2940 |
| JONES | 2975 | 446.25 | 148.75 | 297.5 | 3570 |
| SCOTT | 3000 | 450 | 150 | 300 | 3600 |
| FORD | 3000 | 450 | 150 | 300 | 3600 |
| SMITH | 800 | 120 | 40 | 80 | 960 |
| ALLEN | 1600 | 240 | 80 | 160 | 1920 |
| WARD | 1250 | 187.5 | 62.5 | 125 | 1500 |
| MARTIN | 1250 | 187.5 | 62.5 | 125 | 1500 |
| TURNER | 1500 | 225 | 75 | 150 | 1800 |
| ADAMS | 1100 | 165 | 55 | 110 | 1320 |
| JAMES | 950 | 142.5 | 47.5 | 95 | 1140 |
| MILLER | 1300 | 195 | 65 | 130 | 1560 |

5. List the department numbers and number of employees in each department.

select deptno, empno from emp;

|  |  |
| --- | --- |
| **DEPTNO** | **EMPNO** |
| 10 | 7839 |
| 30 | 7698 |
| 10 | 7782 |
| 20 | 7566 |
| 20 | 7788 |
| 20 | 7902 |
| 20 | 7369 |
| 30 | 7499 |
| 30 | 7521 |
| 30 | 7654 |
| 30 | 7844 |
| 20 | 7876 |
| 30 | 7900 |
| 10 | 7934 |

**1.3 Round 3 – SUBQUERIES**

Write queries for the following questions

1. List employees whose job is same as that of Smith

select \* from emp where job in (select job from emp where ENAME ='SMITH');

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7369 | SMITH | CLERK | 7902 | 17-DEC-80 | 800 | - | 20 |
| 7876 | ADAMS | CLERK | 7788 | 23-MAY-87 | 1100 | - | 20 |
| 7900 | JAMES | CLERK | 7698 | 03-DEC-81 | 950 | - | 30 |
| 7934 | MILLER | CLERK | 7782 | 23-JAN-82 | 1300 | - | 10 |

2. List employees who have joined after Adam

SELECT \* FROM emp WHERE hiredate >'23-MAY-1987';

**No data found**

3. List employees who salary us greater than Scott’s salary

select \* from emp where sal >(select sal from emp where ename='SCOTT');

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7839 | KING | PRESIDENT | - | 17-NOV-81 | 5000 | - | 10 |

4. List employees getting the max salary

Select \* from emp where sal=(select max(sal) from emp);

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7839 | KING | PRESIDENT | - | 17-NOV-81 | 5000 | - | 10 |

5. List employees show salary is > the max salary in deptno 30

Select \* from emp where sal>(select MAX(sal) from emp where deptno=30);

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7839 | KING | PRESIDENT | - | 17-NOV-81 | 5000 | - | 10 |
| 7566 | JONES | MANAGER | 7839 | 02-APR-81 | 2975 | - | 20 |
| 7788 | SCOTT | ANALYST | 7566 | 19-APR-87 | 3000 | - | 20 |
| 7902 | FORD | ANALYST | 7566 | 03-DEC-81 | 3000 | - | 20 |

**1.4 Round 4 – Joins (Mortal mode)**

1. List employee name, department number and their corresponding department name.

select e.empno,e.ename,e.deptno from emp e ,dept d where e.deptno = d.deptno

|  |  |  |
| --- | --- | --- |
| **EMPNO** | **ENAME** | **DEPTNO** |
| 7839 | KING | 10 |
| 7698 | BLAKE | 30 |
| 7782 | CLARK | 10 |
| 7566 | JONES | 20 |
| 7788 | SCOTT | 20 |
| 7902 | FORD | 20 |
| 7369 | SMITH | 20 |
| 7499 | ALLEN | 30 |
| 7521 | WARD | 30 |
| 7654 | MARTIN | 30 |
| 7844 | TURNER | 30 |
| 7876 | ADAMS | 20 |
| 7900 | JAMES | 30 |
| 7934 | MILLER | 10 |

2. List employee name and their manager name

select ename,JOB from emp where job ='MANAGER';

|  |  |
| --- | --- |
| **ENAME** | **JOB** |
| BLAKE | MANAGER |
| CLARK | MANAGER |
| JONES | MANAGER |

3. List employees who work in Research department

SELECT E.EMPNO,E.ENAME,E.JOB,E.MGR,E.SAL,E.COMM,D.DEPTNO FROM EMP E,DEPT D WHERE D.DNAME='RESEARCH' AND E.DEPTNO=D.DEPTNO;

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **SAL** | **COMM** | **DEPTNO** |
| 7566 | JONES | MANAGER | 7839 | 2975 | - | 20 |
| 7788 | SCOTT | ANALYST | 7566 | 3000 | - | 20 |
| 7902 | FORD | ANALYST | 7566 | 3000 | - | 20 |
| 7369 | SMITH | CLERK | 7902 | 800 | - | 20 |
| 7876 | ADAMS | CLERK | 7788 | 1100 | - | 20 |

4. List all rows from EMP table and only the matching rows from DEPT table.

SELECT emp.ename, emp.sal, dept.deptno, dept.dname, dept.loc FROM emp, dept WHERE emp.deptno = dept.deptno;

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ENAME** | **SAL** | **DEPTNO** | **DNAME** | **LOC** |
| KING | 5000 | 10 | ACCOUNTING | NEW YORK |
| BLAKE | 2850 | 30 | SALES | CHICAGO |
| CLARK | 2450 | 10 | ACCOUNTING | NEW YORK |
| JONES | 2975 | 20 | RESEARCH | DALLAS |
| SCOTT | 3000 | 20 | RESEARCH | DALLAS |
| FORD | 3000 | 20 | RESEARCH | DALLAS |
| SMITH | 800 | 20 | RESEARCH | DALLAS |
| ALLEN | 1600 | 30 | SALES | CHICAGO |
| WARD | 1250 | 30 | SALES | CHICAGO |
| MARTIN | 1250 | 30 | SALES | CHICAGO |
| TURNER | 1500 | 30 | SALES | CHICAGO |
| ADAMS | 1100 | 20 | RESEARCH | DALLAS |
| JAMES | 950 | 30 | SALES | CHICAGO |
| MILLER | 1300 | 10 | ACCOUNTING | NEW YORK |

5. List all rows from EMP table and only the matching rows from DEPT table.

SELECT emp.ename, emp.sal, dept.deptno, dept.dname, dept.loc FROM emp, dept WHERE emp.deptno = dept.deptno;

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ENAME** | **SAL** | **DEPTNO** | **DNAME** | **LOC** |
| KING | 5000 | 10 | ACCOUNTING | NEW YORK |
| BLAKE | 2850 | 30 | SALES | CHICAGO |
| CLARK | 2450 | 10 | ACCOUNTING | NEW YORK |
| JONES | 2975 | 20 | RESEARCH | DALLAS |
| SCOTT | 3000 | 20 | RESEARCH | DALLAS |
| FORD | 3000 | 20 | RESEARCH | DALLAS |
| SMITH | 800 | 20 | RESEARCH | DALLAS |
| ALLEN | 1600 | 30 | SALES | CHICAGO |
| WARD | 1250 | 30 | SALES | CHICAGO |
| MARTIN | 1250 | 30 | SALES | CHICAGO |
| TURNER | 1500 | 30 | SALES | CHICAGO |
| ADAMS | 1100 | 20 | RESEARCH | DALLAS |
| JAMES | 950 | 30 | SALES | CHICAGO |
| MILLER | 1300 | 10 | ACCOUNTING | NEW YORK |