

Assignment 2

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1. Display the Name, manager Id, and hire date of all employees who are either clerk or works in dept 20.

```
SELECT ENAME, MGR, INITCAP(TO_CHAR(HIREDATE,'DDSPTH MONTH, YYYY')) DATE_HIRED  
FROM EMP WHERE LOWER(JOB)='CLERK' OR DEPTNO = 20;
```

ENAME	MGR	DATE_HIRED
SMITH	7902	Seventeenth December , 1980
JONES	7839	Second April , 1981
SCOTT	7566	Nineteenth April , 1987
ADAMS	7788	Twenty-Third May , 1987
JAMES	7698	Third December , 1981
FORD	7566	Third December , 1981
MILLER	7782	Twenty-Third January , 1982

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2. List the employee name and old salary and new increased salary by 25% and expressed as a whole number.

SELECT ENAME, SAL OLD_SALARY, ROUND(SAL*1.25) NEW_SALARY FROM EMP;

ENAME	OLD_SALARY	NEW_SALARY
SMITH	800	1000
ALLEN	1600	2000
WARD	1250	1563
JONES	2975	3719
MARTIN	1250	1563
BLAKE	2850	3563
CLARK	2450	3063
SCOTT	3000	3750
KING	5000	6250
TURNER	1500	1875
ADAMS	1100	1375
JAMES	950	1188
FORD	3000	3750
MILLER	1300	1625

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3. List the employee name and salary where name is displayed as left justified and salary with right justified.

SELECT RPAD(ENAME,10) ENAME, LPAD(SAL,15) SALARY FROM EMP;

ENAME	SALARY
SMITH	800
ALLEN	1600
WARD	1250
JONES	2975
MARTIN	1250
BLAKE	2850
CLARK	2450
SCOTT	3000
KING	5000
TURNER	1500
ADAMS	1100
JAMES	950
FORD	3000
MILLER	1300

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4. Produce the output as follows(for all employees)

ROLE OF THE EMPLOYEE

Name1 (<Job of Name 1>)

Name2 (<Job of Name 2>)

.....

Note: Only first character of Name and job will be in uppercase.

SELECT INITCAP(ENAME||' '||JOB) ROLE_OF_THE_EMPLOYEE FROM EMP;

ROLE_OF_THE_EMPLOYEE
Smith Clerk
Allen Salesman
Ward Salesman
Jones Manager
Martin Salesman
Blake Manager
Clark Manager
Scott Analyst
King President
Turner Salesman
Adams Clerk
James Clerk
Ford Analyst
Miller Clerk

- 5.

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6. Display each employee name with hiredate and salary review date. Assume that date is one year after hiredate. Order the output in ascending review date order.

```
SELECT ENAME, HIREDATE, ADD_MONTHS(HIREDATE,12) REVIEWDATE  
FROM EMP  
ORDER BY REVIEWDATE;
```

ENAME	HIREDATE	REVIEWDATE
SMITH	17-DEC-80	17-DEC-81
ALLEN	20-FEB-81	20-FEB-82
WARD	22-FEB-81	22-FEB-82
JONES	02-APR-81	02-APR-82
BLAKE	01-MAY-81	01-MAY-82
CLARK	09-JUN-81	09-JUN-82
TURNER	08-SEP-81	08-SEP-82
MARTIN	28-SEP-81	28-SEP-82
KING	17-NOV-81	17-NOV-82
JAMES	03-DEC-81	03-DEC-82
FORD	03-DEC-81	03-DEC-82
MILLER	23-JAN-82	23-JAN-83
SCOTT	19-APR-87	19-APR-88
ADAMS	23-MAY-87	23-MAY-88

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7. Find the employees(s) who earn the highest salary in each job type sort in descending salary order(Use IN operator and subqueries).

SELECT *

FROM EMP

WHERE (JOB,SAL) IN (SELECT JOB,max(SAL) FROM EMP GROUP BY JOB)

ORDER BY SAL;

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	PHONENO	ADDRESS
7934	MILLER	CLERK	7782	23-JAN-82	1300	-	10	-	-
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30	-	-
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	-	-
7839	KING	PRESIDENT	-	17-NOV-81	5000	-	10	-	-

8. Find the most recently hired employee in each department (give number only).

SELECT DEPTNO, ENAME

FROM EMP

WHERE (DEPTNO,SYSDATE-HIREDATE)

IN

(SELECT DEPTNO, MIN(SYSDATE-HIREDATE) FROM EMP GROUP BY DEPTNO)

GROUP BY DEPTNO,ENAME;

DEPTNO	ENAME
10	MILLER
30	JAMES
20	ADAMS

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9. Show the name of the department and no of employees who works in that department. Sort in department number.

```
SELECT EMP.DEPTNO ,COUNT(EMPNO)
FROM EMP,DEPT
WHERE DEPT.DEPTNO = EMP.DEPTNO
GROUP BY EMP.DEPTNO
ORDER BY EMP.DEPTNO;
```

DEPTNO	COUNT(EMPNO)
10	3
20	5
30	6

10. Display the Id, name, salary and the salary grade for any employee who earns the maximum salary for their department. Sort in department number.

```
SELECT EMP.EMPNO, EMP.ENAME, EMP.SAL, SALGRADE.GRADE
FROM EMP, SALGRADE
WHERE (EMP.SAL BETWEEN SALGRADE.LOSAL AND SALGRADE.HISAL)
AND
(EMP.DEPTNO, EMP.SAL) IN (SELECT DEPTNO, MAX(SAL) FROM EMP GROUP BY
DEPTNO)
ORDER BY EMP.DEPTNO;
```

EMPNO	ENAME	SAL	GRADE
7839	KING	5000	5
7902	FORD	3000	4
7788	SCOTT	3000	4
7698	BLAKE	2850	4

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11. In which year did most people join the company? Display the year and number of employees.

```
SELECT YEAR, EMP_JOINED
      FROM (SELECT EXTRACT(YEAR FROM HIREDATE) YEAR, COUNT(EXTRACT(YEAR FROM
HIREDATE)) EMP_JOINED FROM EMP GROUP BY EXTRACT(YEAR FROM HIREDATE))
      WHERE EMP_JOINED = (SELECT MAX(COUNT(EXTRACT(YEAR FROM HIREDATE)))
EMP_JOINED FROM EMP GROUP BY EXTRACT(YEAR FROM HIREDATE));
```

YEAR	EMP_JOINED
1981	10

12. Show the every alternate row in employee table.

```
SELECT INDX.R ROW_NUMBER,EMP.*
      FROM EMP, (SELECT EMPNO, (ROW_NUMBER() OVER (ORDER BY EMPNO))-1 R FROM EMP)
INDX
      WHERE (EMP.EMPNO = INDX.EMPNO) AND (REMAINDER(INDX.R,2)=0);
```

ROW_NUMBER	EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	PHONENO	ADDRESS
0	7369	SMITH	CLERK	7902	17-DEC-80	800	-	20	-	-
2	7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30	-	-
4	7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30	-	-
6	7782	CLARK	MANAGER	7839	09-JUN-81	2450	-	10	-	-
8	7839	KING	PRESIDENT	-	17-NOV-81	5000	-	10	-	-
10	7876	ADAMS	CLERK	7788	23-MAY-87	1100	-	20	-	-
12	7902	FORD	ANALYST	7566	03-DEC-81	3000	-	20	-	-

13. Display the total salary of all employees. Total salary = salary + commission.

```
SELECT SUM(CTC) TOTAL_SAL
      FROM (SELECT EMP.*, R.CTC CTC
      FROM EMP, ((SELECT SAL + COMM CTC, EMPNO
      FROM EMP WHERE COMM IS NOT
      NULL)
      UNION
      (SELECT SAL CTC, EMPNO
      FROM EMP WHERE COMM IS NULL)) R
      WHERE R.EMPNO = EMP.EMPNO);
```

TOTAL_SAL
31225

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14. Display the department name and available jobs in that department.

```
SELECT DNAME, LISTAGG(JOB, ', ') WITHIN GROUP (ORDER BY DNAME) AVAILABLE_JOB  
FROM (SELECT DISTINCT DEPT.DNAME DNAME ,EMP.JOB JOB FROM EMP, DEPT WHERE  
DEPT.DEPTNO = EMP.DEPTNO ORDER BY DEPT.DNAME)  
GROUP BY DNAME;
```

DNAME	AVAILABLE_JOB
ACCOUNTING	CLERK, MANAGER, PRESIDENT
RESEARCH	ANALYST, CLERK, MANAGER
SALES	CLERK, MANAGER, SALESMAN

15. Display all the available departments and the employee(s) works under it.

```
SELECT DNAME, LISTAGG(ENAME, ', ') WITHIN GROUP (ORDER BY DNAME) EMPLOYEES  
FROM (SELECT DISTINCT DEPT.DNAME DNAME, EMP.ENAME ENAME FROM EMP, DEPT  
WHERE EMP.DEPTNO=DEPT.DEPTNO ORDER BY DEPT.DNAME)  
GROUP BY DNAME;
```

DNAME	EMPLOYEES
ACCOUNTING	CLARK, KING, MILLER
RESEARCH	ADAMS, FORD, JONES, SCOTT, SMITH
SALES	ALLEN, BLAKE, JAMES, MARTIN, TURNER, WARD