1. *Display the Name and Title of the Employee who do not have a manager.*

*select ename,job from emp where job not in("Manager");*

*+--------+-----------+*

*| ename | job |*

*+--------+-----------+*

*| SMITH | CLERK |*

*| AARAV | CLERK |*

*| THOMAS | CLERK |*

*| ALLEN | SALESMAN |*

*| WARD | SALESMAN |*

*| MARTIN | SALESMAN |*

*| SCOTT | ANALYST |*

*| KING | PRESIDENT |*

*| TURNER | SALESMAN |*

*| ADAMS | CLERK |*

*| JAMES | CLERK |*

*| FORD | ANALYST |*

*| GRASS | SALESMAN |*

*| MILLER | CLERK |*

*| AARUSH | SALESMAN |*

*+--------+-----------+*

*15 rows in set (0.01 sec)*

1. *The sales department is simplifying the pricing policy for all products. The new base price is increasing by the lesser of 0.5 %. Analyze the difference in the two prices.*

*select prodname,amount,(amount+(min(amount)\*0.005)) as newp from sales group by amount;*

*+-------------------------+----------+-----------+*

*| prodname | amount | newp |*

*+-------------------------+----------+-----------+*

*| RH: "GUIDE TO TENNIS" | 1703.40 | 1711.917 |*

*| ACE TENNIS RACKET II | 485.00 | 487.425 |*

*| ACE TENNIS BALLS-3 PACK | 292.50 | 293.962 |*

*| ACE TENNIS NET | 50.00 | 50.250 |*

*| ACE TENNIS RACKET I | 350.00 | 351.750 |*

*| SB ENERGY BAR-6 PACK | 2400.00 | 2412.000 |*

*| ACE TENNIS RACKET I | 35.00 | 35.175 |*

*| ACE TENNIS BALLS-3 PACK | 8.40 | 8.442 |*

*| ACE TENNIS NET | 58.00 | 58.290 |*

*| ACE TENNIS BALLS-3 PACK | 3306.00 | 3322.530 |*

*| ACE TENNIS RACKET I | 16569.00 | 16651.845 |*

*| ACE TENNIS RACKET II | 2300.50 | 2312.003 |*

*| ACE TENNIS BALLS-6 PACK | 5600.00 | 5628.000 |*

*| ACE TENNIS RACKET II | 450.00 | 452.250 |*

*| ACE TENNIS BALLS-3 PACK | 140.00 | 140.700 |*

*| ACE TENNIS NET | 116.00 | 116.*

1. *Display the employee details who have joined on the same day when KING has joined.*

*select ename,date(hiredate) from emp where date(hiredate)=(select date(hiredate) from emp where ename="King");*

*+-------+----------------+*

*| ename | date(hiredate) |*

*+-------+----------------+*

*| KING | 1981-11-17 |*

*+-------+----------------+*

*1 row in set (0.00 sec)*

1. *Find out the difference between maximum salary and salary earned by employee in deptno 10.*

*select max(sal),min(sal),deptno from emp group by deptno having deptno=10;*

*+----------+----------+--------+*

*| max(sal) | min(sal) | deptno |*

*+----------+----------+--------+*

*| 5000.00 | 1300.00 | 10 |*

*+----------+----------+--------+*

*1 row in set (0.00 sec)*

1. *Find out the difference in Rs. Between average earning of dept 20 and 30.*

*select avg(sal)-(select avg(sal) from emp where deptno=20) from emp where deptno=10;*

*+-----------------------------------------------------+*

*| avg(sal)-(select avg(sal) from emp where deptno=20) |*

*+-----------------------------------------------------+*

*| 595.000000 |*

*+-----------------------------------------------------+*

*1 row in set (0.00 sec)*

1. *Display name, salary, comm. For employee whose comm. > 5% of salary.*

*select ename ,sal,comm from emp where comm>( sal\*0.05);*

*+--------+---------+---------+*

*| ename | sal | comm |*

*+--------+---------+---------+*

*| ALLEN | 1600.00 | 300.00 |*

*| WARD | 1250.00 | 500.00 |*

*| MARTIN | 1250.00 | 1400.00 |*

*| GRASS | 2575.00 | 2700.00 |*

*| AARUSH | 1350.00 | 2700.00 |*

*| ALEX | 1250.00 | 500.00 |*

*+--------+---------+---------+*

*6 rows in set (0.00 sec)*

1. *Find out the employees whose salary is less than the average salary for dept 20.*

*select ename ,sal from emp where sal<(select avg(sal) from emp where deptno=20);*

*+--------+---------+*

*| ename | sal |*

*+--------+---------+*

*| SMITH | 800.00 |*

*| THOMAS | 1750.00 |*

*| ALLEN | 1600.00 |*

*| WARD | 1250.00 |*

*| MARTIN | 1250.00 |*

*| TURNER | 1500.00 |*

*| ADAMS | 1100.00 |*

*| JAMES | 950.00 |*

*| MILLER | 1300.00 |*

*| AARUSH | 1350.00 |*

*| ALEX | 1250.00 |*

*+--------+---------+*

*11 rows in set (0.00 sec)*

1. *Display information of employee who has no people reporting to them.*

*select \* from emp where empno not in(select distinct mgr from emp where mgr is not null);*

*+-------+--------+----------+------+---------------------+---------+---------+--------+---------+-----------+------------+*

*| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO | BONUSID | USER NAME | PWD |*

*+-------+--------+----------+------+---------------------+---------+---------+--------+---------+-----------+------------+*

*| 7369 | SMITH | CLERK | 7902 | 1980-12-17 00:00:00 | 800.00 | NULL | 20 | 2 | SMITH | a12recmpm |*

*| 7415 | AARAV | CLERK | 7902 | 1981-12-31 00:00:00 | 3350.00 | NULL | 10 | NULL | AARAV | NULL |*

*| 7421 | THOMAS | CLERK | 7920 | 1981-07-19 00:00:00 | 1750.00 | NULL | 10 | 1 | THOMAS | r50mpm |*

*| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 00:00:00 | 1600.00 | 300.00 | 30 | 4 | ALLEN | sales@2017 |*

*| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 00:00:00 | 1250.00 | 500.00 | 30 | 1 | WARD | sales@2017 |*

*| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 00:00:00 | 1250.00 | 1400.00 | 30 | 6 | MARTIN | sales@2017 |*

*| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 00:00:00 | 1500.00 | 0.00 | 30 | 5 | TURNER | sales@2017 |*

*| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 00:00:00 | 1100.00 | NULL | 20 | 1 | ADAMS | a12recmpm |*

*| 7900 | JAMES | CLERK | 7698 | 1981-12-03 00:00:00 | 950.00 | NULL | 30 | 2 | JAMES | sales@2017 |*

*| 7934 | MILLER | CLERK | 7782 | 1982-01-23 00:00:00 | 1300.00 | NULL | 10 | 2 | MILLER | r50mpm |*

*| 7945 | AARUSH | SALESMAN | 7902 | 1980-02-14 00:00:00 | 1350.00 | 2700.00 | 30 | NULL | AARUSH | ABC |*

*| 7949 | ALEX | MANAGER | 7698 | 1982-01-24 00:00:00 | 1250.00 | 500.00 | 30 | 5 | ALEX | sales@2017 |*

*+-------+--------+----------+------+---------------------+---------+---------+--------+---------+-----------+------------+*

*12 rows in set (0.13 sec)*

1. *Display information of employees who is having maximum number of people reporting to them.*

*select mgr,count(\*) from emp group by mgr order by 2 desc limit 1;*

*+------+----------+*

*| mgr | count(\*) |*

*+------+----------+*

*| 7698 | 6 |*

*+------+----------+*

*1 row in set (0.00 sec)*

1. *Give a query to concatenate empno, ename and mgr with spaces between.*

*select concat\_ws(" ",ename,empno,mgr) from emp;*

*+--------------------------------+*

*| concat\_ws(" ",ename,empno,mgr) |*

*+--------------------------------+*

*| SMITH 7369 7902 |*

*| AARAV 7415 7902 |*

*| THOMAS 7421 7920 |*

*| ALLEN 7499 7698 |*

*| WARD 7521 7698 |*

*| JONES 7566 7839 |*

*| MARTIN 7654 7698 |*

*| BLAKE 7698 7839 |*

*| CLARK 7782 7839 |*

*| SCOTT 7788 7566 |*

*| KING 7839 |*

*| TURNER 7844 7698 |*

*| ADAMS 7876 7788 |*

*| JAMES 7900 7698 |*

*| FORD 7902 7566 |*

*| HOFFMAN 7919 7566 |*

*| GRASS 7920 7919 |*

*| MILLER 7934 7782 |*

*| AARUSH 7945 7902 |*

*| ALEX 7949 7698 |*

*+--------------------------------+*

*20 rows in set (0.00 sec)*

1. *List the employee who is hired the earliest and least.*

*select ename,hiredate from emp where hiredate =(select hiredate from emp order by hiredate desc limit 1) or hiredate=(select hiredate from emp order by hiredate asc limit 1);*

*+--------+---------------------+*

*| ename | hiredate |*

*+--------+---------------------+*

*| ADAMS | 1983-01-12 00:00:00 |*

*| GRASS | 1980-02-14 00:00:00 |*

*| AARUSH | 1980-02-14 00:00:00 |*

*+--------+---------------------+*

*3 rows in set (0.00 sec)*

*mysql> select ename,hiredate from emp where hiredate =(select hiredate from emp order by hiredate desc limit 1) or hiredate=(select hiredate from emp order by hiredate asc limit 1) limit 2;*

*+-------+---------------------+*

*| ename | hiredate |*

*+-------+---------------------+*

*| ADAMS | 1983-01-12 00:00:00 |*

*| GRASS | 1980-02-14 00:00:00 |*

*+-------+---------------------+*

*2 rows in set (0.00 sec)*

1. *What length of longest ename and by how many characters is it long than its nearest one?*

*select (select char\_length(ename) from emp order by 1 desc limit 1)-(select char\_length(ename) from emp order by 1 desc limit 1,1) as diff;*

*+------+*

*| diff |*

*+------+*

*| 1 |*

*+------+*

*1 row in set (0.00 sec)*

1. *Which employees earn less than 30% of president s salary?*

*select ename ,sal ,job from emp where sal < (select sal\*.30 from emp where job="president");*

*+--------+---------+----------+*

*| ename | sal | job |*

*+--------+---------+----------+*

*| SMITH | 800.00 | CLERK |*

*| WARD | 1250.00 | SALESMAN |*

*| MARTIN | 1250.00 | SALESMAN |*

*| ADAMS | 1100.00 | CLERK |*

*| JAMES | 950.00 | CLERK |*

*| MILLER | 1300.00 | CLERK |*

*| AARUSH | 1350.00 | SALESMAN |*

*| ALEX | 1250.00 | MANAGER |*

*+--------+---------+----------+*

*8 rows in set (0.00 sec)*

1. *List the department spending highest on salary.*

*select deptno from (select deptno,sum(sal),dense\_rank() over(order by sum(sal) desc)as m from emp group by deptno)t1 where m=1;*

*+--------+*

*| deptno |*

*+--------+*

*| 30 |*

*+--------+*

1. *List the department having least number of staff.*

*select deptno from (select deptno,count(\*),dense\_rank() over( order by count(\*) asc) as m from emp group by deptno ) as t1 where m=1;*

*+--------+*

*| deptno |*

*+--------+*

*| 10 |*

*| 20 |*

*+--------+*

*2 rows in set (0.00 sec)*

1. *List the department having neither the highest not the lowest of avg salary.*

*select sal from (select deptno,sal,dense\_rank() over( order by sal desc) as m from emp)T where m not in (1,17);*

*+---------+*

*| sal |*

*+---------+*

*| 4150.00 |*

*| 3350.00 |*

*| 3000.00 |*

*| 3000.00 |*

*| 2975.00 |*

*| 2850.00 |*

*| 2575.00 |*

*| 2450.00 |*

*| 1750.00 |*

*| 1600.00 |*

*| 1500.00 |*

*| 1350.00 |*

*| 1300.00 |*

*| 1250.00 |*

*| 1250.00 |*

*| 1250.00 |*

*| 1100.00 |*

*| 950.00 |*

*+---------+*

*18 rows in set (0.00 sec)*

1. *Display details of all employees as Mr. Ford works under <manger name>.*
2. *Display employee information who have joined the organization before 'BLAKE'*
3. *Display employee information that has joined the organization before their subordinates.*
4. *List the employee (s) who earns the highest.*
5. *List the mgr in dept 10 along with their dept details as well manager refers to anyone to whom at least 1 person reports.*
6. *In which year did the most people join the organization? Display the year and the number of employees.*
7. *List number, name, job, manager number and manger’s job of each employee reporting to them*

*select e.empno as "emp no",e.ename as "emp name",e.mgr as "mgr id",m.ename as "manger name" ,m.job as "mgr job "from emp e,emp m where m.empno=e.mgr ;*

*+--------+----------+--------+-------------+-----------+*

*| emp no | emp name | mgr id | manger name | mgr job |*

*+--------+----------+--------+-------------+-----------+*

*| 7369 | SMITH | 7902 | FORD | ANALYST |*

*| 7415 | AARAV | 7902 | FORD | ANALYST |*

*| 7421 | THOMAS | 7920 | GRASS | SALESMAN |*

*| 7499 | ALLEN | 7698 | BLAKE | MANAGER |*

*| 7521 | WARD | 7698 | BLAKE | MANAGER |*

*| 7566 | JONES | 7839 | KING | PRESIDENT |*

*| 7654 | MARTIN | 7698 | BLAKE | MANAGER |*

*| 7698 | BLAKE | 7839 | KING | PRESIDENT |*

*| 7782 | CLARK | 7839 | KING | PRESIDENT |*

*| 7788 | SCOTT | 7566 | JONES | MANAGER |*

*| 7844 | TURNER | 7698 | BLAKE | MANAGER |*

*| 7876 | ADAMS | 7788 | SCOTT | ANALYST |*

*| 7900 | JAMES | 7698 | BLAKE | MANAGER |*

*| 7902 | FORD | 7566 | JONES | MANAGER |*

*| 7919 | HOFFMAN | 7566 | JONES | MANAGER |*

*| 7920 | GRASS | 7919 | HOFFMAN | MANAGER |*

*| 7934 | MILLER | 7782 | CLARK | MANAGER |*

*| 7945 | AARUSH | 7902 | FORD | ANALYST |*

*| 7949 | ALEX | 7698 | BLAKE | MANAGER |*

*+--------+----------+--------+-------------+-----------+*

*19 rows in set (0.00 sec)*

1. *Display information about employees who have the maximum number of employees reporting to him*
2. *Display the details of all employees who report to BLAKE*
3. *Display the department no of all departments having more than 1 clerks*
4. *Which employees earn less than 30% of the president’s salary.*
5. *Display all employee names and the locations of their departments except ‘CHICAGO’*
6. *Display department that has no employees*
7. *Display the products purchased by JOCK SPORTS which are not purchased by JUST TENNIS*
8. *Write a query to find out the employees who are first to join their departments*
9. *Create a query to display the name, hiredate, and salary for all employees who have both the same salary and commission as Scott.*
10. *List all the employees who have at least one person reporting to them.*
11. *List the name of the employees with their immediate higher authority.*
12. *List all the employees who do not manage any one.*
13. *Write a query to display a ‘\*’ against the row of the most recently hired employee.*
14. *Write a correlated sub-query to list out the employees who earn more than the average salary of their department.*
15. *Find the 2nd maximum salary.*
16. *Select the duplicate records (Records, which are inserted, that already exist) in the EMP table.*
17. *List the Employees in Deptno 10 other than King.*