Setting environment for using XAMPP for Windows.

sky30@DESKTOP-DU18TEA c:\xampp

# mysql -u root -p

Enter password:

Welcome to the MariaDB monitor. Commands end with ; or \g.

Your MariaDB connection id is 9

Server version: 10.4.28-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> use employee;

Database changed

MariaDB [employee]> show tables;

+--------------------+

| Tables\_in\_employee |

+--------------------+

| bonus |

| dept |

| emp |

| salgrade |

+--------------------+

4 rows in set (0.001 sec)

MariaDB [employee]> SELECT \* FROM bonus;

+--------+----------+------+------+

| Ename | JOB | SAL | COMM |

+--------+----------+------+------+

| ALLEN | SALESMAN | 1600 | 300 |

| WARD | SALESMAN | 1250 | 500 |

| TURNER | SALESMAN | 1500 | 0 |

| MARTIN | SALESMAN | 1250 | 1400 |

+--------+----------+------+------+

4 rows in set (0.000 sec)

MariaDB [employee]> SELECT \* FROM dept;

+-------+------------+----------+

| DEPNO | DNAME | LOC |

+-------+------------+----------+

| 10 | ACCOUNTING | NEW YORK |

| 20 | RESERCH | DALLAS |

| 30 | SALES | CHICAGO |

| 40 | OPERATIONS | BOSTON |

+-------+------------+----------+

4 rows in set (0.000 sec)

MariaDB [employee]> SELECT \* FROM emp;

+-------+--------+-----------+------+------------+---------+---------+--------+

| empno | ename | job | mgr | hiredate | sal | comm | deptno |

+-------+--------+-----------+------+------------+---------+---------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7654 | MARTIN | SALSEMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 | 30 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 |

| 7782 | CLERK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 |

| 7844 | TURNER | SALESMAN | 7788 | 1981-09-08 | 1500.00 | 0.00 | 30 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 |

| 7902 | FORD | ANALYST | 7566 | 0000-00-00 | 3000.00 | NULL | 20 |

| 7932 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+-----------+------+------------+---------+---------+--------+

13 rows in set (0.001 sec)

MariaDB [employee]> SELECT \* FROM selgrade;

ERROR 1146 (42S02): Table 'employee.selgrade' doesn't exist

MariaDB [employee]> SELECT \* FROM salgrade;

+-------+-------+-------+

| GRADE | LOSAL | HISAL |

+-------+-------+-------+

| 1 | 700 | 1200 |

| 2 | 1201 | 1400 |

| 3 | 1401 | 2000 |

| 4 | 2001 | 3000 |

| 5 | 3001 | 9999 |

+-------+-------+-------+

5 rows in set (0.000 sec)

Query1. Write a query to display name, job, hiredate and employee number for each employee with employee number appearing first.

MariaDB [employee]> SELECT empno,ename,job,hiredate FROM emp;

+-------+--------+-----------+------------+

| empno | ename | job | hiredate |

+-------+--------+-----------+------------+

| 7369 | SMITH | CLERK | 1980-12-17 |

| 7499 | ALLEN | SALESMAN | 1981-02-20 |

| 7566 | JONES | MANAGER | 1981-04-02 |

| 7654 | MARTIN | SALSEMAN | 1981-09-28 |

| 7698 | BLAKE | MANAGER | 1981-05-01 |

| 7782 | CLERK | MANAGER | 1981-06-09 |

| 7788 | SCOTT | ANALYST | 1982-12-09 |

| 7839 | KING | PRESIDENT | 1981-11-17 |

| 7844 | TURNER | SALESMAN | 1981-09-08 |

| 7876 | ADAMS | CLERK | 1983-01-12 |

| 7900 | JAMES | CLERK | 1981-12-03 |

| 7902 | FORD | ANALYST | 0000-00-00 |

| 7932 | MILLER | CLERK | 1982-01-23 |

+-------+--------+-----------+------------+

13 rows in set (0.001 sec)

Query2. Write a query to display unique jobs from the employee table.

MariaDB [employee]> SELECT DISTINCT job FROM emp;

+-----------+

| job |

+-----------+

| CLERK |

| SALESMAN |

| MANAGER |

| SALSEMAN |

| ANALYST |

| PRESIDENT |

+-----------+

6 rows in set (0.001 sec)

Query3. Write a query to display name concatenated by a job separated by a comma.

MariaDB [employee]> SELECT CONCAT(ename,",",job) FROM emp;

+-----------------------+

| CONCAT(ename,",",job) |

+-----------------------+

| SMITH,CLERK |

| ALLEN,SALESMAN |

| JONES,MANAGER |

| MARTIN,SALSEMAN |

| BLAKE,MANAGER |

| CLERK,MANAGER |

| SCOTT,ANALYST |

| KING,PRESIDENT |

| TURNER,SALESMAN |

| ADAMS,CLERK |

| JAMES,CLERK |

| FORD,ANALYST |

| MILLER,CLERK |

+-----------------------+

13 rows in set (0.001 sec)

Query4. Write a query to display the name and salary of employees earning more than $2850.

MariaDB [employee]> SELECT ename,sal FROM emp WHERE sal>2850;

+-------+---------+

| ename | sal |

+-------+---------+

| JONES | 2975.00 |

| SCOTT | 3000.00 |

| KING | 5000.00 |

| FORD | 3000.00 |

+-------+---------+

4 rows in set (0.001 sec)

Quer5. Write a query to display the name and department number for employee number 7900.

MariaDB [employee]> SELECT ename,deptno FROM emp WHERE empno=7900;

+-------+--------+

| ename | deptno |

+-------+--------+

| JAMES | 30 |

+-------+--------+

1 row in set (0.001 sec)

Query6. Write a query to display the name and salary of all employees whose salary is not in the range of $1500 and $2850.

MariaDB [employee]> SELECT ename,sal FROM emp WHERE sal NOT BETWEEN 1500 AND 2850;

+--------+---------+

| ename | sal |

+--------+---------+

| SMITH | 800.00 |

| JONES | 2975.00 |

| MARTIN | 1250.00 |

| SCOTT | 3000.00 |

| KING | 5000.00 |

| ADAMS | 1100.00 |

| JAMES | 950.00 |

| FORD | 3000.00 |

| MILLER | 1300.00 |

+--------+---------+

9 rows in set (0.001 sec)

Query7. Write a query to display the name and department number of all employees in departments 10 and 30 in alphabetical order by name.

MariaDB [employee]> SELECT ename,deptno FROM emp WHERE deptno=10 OR deptno=30 ORDER BY ename;

+--------+--------+

| ename | deptno |

+--------+--------+

| ALLEN | 30 |

| BLAKE | 30 |

| CLERK | 10 |

| JAMES | 30 |

| KING | 10 |

| MARTIN | 30 |

| MILLER | 10 |

| TURNER | 30 |

+--------+--------+

8 rows in set (0.001 sec)

Query8. Write a query to display the name and salary of employees who earned more than

$1500 and are in department number 10 or 30.

MariaDB [employee]> SELECT ename,sal FROM emp WHERE sal>1500 AND (deptno=10 OR deptno=30);

+-------+---------+

| ename | sal |

+-------+---------+

| ALLEN | 1600.00 |

| BLAKE | 2850.00 |

| CLERK | 2450.00 |

| KING | 5000.00 |

+-------+---------+

4 rows in set (0.001 sec)

Query9. Write a query to display the name and hire date of every employee who was hired in 1981.

MariaDB [employee]> SELECT ename, hiredate FROM emp WHERE hiredate LIKE "1981%";

+--------+------------+

| ename | hiredate |

+--------+------------+

| ALLEN | 1981-02-20 |

| JONES | 1981-04-02 |

| MARTIN | 1981-09-28 |

| BLAKE | 1981-05-01 |

| CLERK | 1981-06-09 |

| KING | 1981-11-17 |

| TURNER | 1981-09-08 |

| JAMES | 1981-12-03 |

+--------+------------+

8 rows in set (0.001 sec)

Query10. Write a query to display the name and job of all employees who do not have a manager.

MariaDB [employee]> SELECT ename,job FROM emp WHERE NOT(job='MANAGER');

+--------+-----------+

| ename | job |

+--------+-----------+

| SMITH | CLERK |

| ALLEN | SALESMAN |

| MARTIN | SALSEMAN |

| SCOTT | ANALYST |

| KING | PRESIDENT |

| TURNER | SALESMAN |

| ADAMS | CLERK |

| JAMES | CLERK |

| FORD | ANALYST |

| MILLER | CLERK |

+--------+-----------+

10 rows in set (0.001 sec)

Query11. Write a query to display the name, salary and commission for all employees who earn commission. Sort the data in descending order of salary.

MariaDB [employee]> SELECT ename,sal,comm FROM emp WHERE (comm IS NOT NULL) AND (comm<>0.00) ORDER BY sal DESC;

Or we write it as SELECT ename,sal,comm FROM emp WHERE comm>0 ORDER BY sal DESC;

+--------+---------+---------+

| ename | sal | comm |

+--------+---------+---------+

| ALLEN | 1600.00 | 300.00 |

| MARTIN | 1250.00 | 1400.00 |

+--------+---------+---------+

2 rows in set (0.001 sec)

Query12. Write a query to display the names of all employees where the third letter of their name is A.

MariaDB [employee]> SELECT ename FROM emp WHERE ename LIKE "\_\_A%";

+-------+

| ename |

+-------+

| BLAKE |

| ADAMS |

+-------+

2 rows in set (0.001 sec)

Query13. Write a query to display the names of all employees that have two R's or A's in their name and are in department number 30 or their manager is 7788.

MariaDB [employee]> SELECT ename FROM emp WHERE ((ename LIKE "%A%A%" OR ename LIKE "%R%R%") AND deptno=30 ) OR mgr=7788;

+--------+

| ename |

+--------+

| TURNER |

| ADAMS |

+--------+

2 rows in set (0.002 sec)

Query14. Write a query to display the name, job and salary of all employees whose job is clerk or analyst and their salary are not equal to 1000, 3000 or 5000.

MariaDB [employee]> SELECT ename,job,sal FROM emp WHERE (job="clerk"OR job="analyst")AND (sal NOT IN (1000,3000,5000));

+--------+-------+---------+

| ename | job | sal |

+--------+-------+---------+

| SMITH | CLERK | 800.00 |

| ADAMS | CLERK | 1100.00 |

| JAMES | CLERK | 950.00 |

| MILLER | CLERK | 1300.00 |

+--------+-------+---------+

4 rows in set (0.001 sec)

Query15. Write a query to display the name, salary and commission of all employees whose commission amount is greater than their salary increased by 5%.

MariaDB [employee]> SELECT ename,sal,comm FROM emp WHERE comm>sal\*1.05;

+--------+---------+---------+

| ename | sal | comm |

+--------+---------+---------+

| MARTIN | 1250.00 | 1400.00 |

+--------+---------+---------+

1 row in set (0.001 sec)

Query16. Write a query to display a current date.

MariaDB [employee]> SELECT CURDATE();

+------------+

| CURDATE() |

+------------+

| 2023-10-28 |

+------------+

1 row in set (0.000 sec)

Query17. Write a query to display employee number, name, salary, salary increased by 15% expressed as a whole number.

MariaDB [employee]> SELECT empno,ename,sal,(sal\*1.15) AS aggr\_sal\_sal FROM emp;

+-------+--------+---------+--------------+

| empno | ename | sal | aggr\_sal\_sal |

+-------+--------+---------+--------------+

| 7369 | SMITH | 800.00 | 920.0000 |

| 7499 | ALLEN | 1600.00 | 1840.0000 |

| 7566 | JONES | 2975.00 | 3421.2500 |

| 7654 | MARTIN | 1250.00 | 1437.5000 |

| 7698 | BLAKE | 2850.00 | 3277.5000 |

| 7782 | CLERK | 2450.00 | 2817.5000 |

| 7788 | SCOTT | 3000.00 | 3450.0000 |

| 7839 | KING | 5000.00 | 5750.0000 |

| 7844 | TURNER | 1500.00 | 1725.0000 |

| 7876 | ADAMS | 1100.00 | 1265.0000 |

| 7900 | JAMES | 950.00 | 1092.5000 |

| 7902 | FORD | 3000.00 | 3450.0000 |

| 7932 | MILLER | 1300.00 | 1495.0000 |

+-------+--------+---------+--------------+

13 rows in set (0.001 sec)

Query18. Write a query to display the employee number, name, salary, salary increased by 15% expressed as a whole number and increase in salary.

MariaDB [employee]> SELECT empno,ename,sal,(sal\*1.15)AS aggr\_sal,((sal\*1.15)-sal)As incr\_sal FROM emp;

+-------+--------+---------+-----------+----------+

| empno | ename | sal | aggr\_sal | incr\_sal |

+-------+--------+---------+-----------+----------+

| 7369 | SMITH | 800.00 | 920.0000 | 120.0000 |

| 7499 | ALLEN | 1600.00 | 1840.0000 | 240.0000 |

| 7566 | JONES | 2975.00 | 3421.2500 | 446.2500 |

| 7654 | MARTIN | 1250.00 | 1437.5000 | 187.5000 |

| 7698 | BLAKE | 2850.00 | 3277.5000 | 427.5000 |

| 7782 | CLERK | 2450.00 | 2817.5000 | 367.5000 |

| 7788 | SCOTT | 3000.00 | 3450.0000 | 450.0000 |

| 7839 | KING | 5000.00 | 5750.0000 | 750.0000 |

| 7844 | TURNER | 1500.00 | 1725.0000 | 225.0000 |

| 7876 | ADAMS | 1100.00 | 1265.0000 | 165.0000 |

| 7900 | JAMES | 950.00 | 1092.5000 | 142.5000 |

| 7902 | FORD | 3000.00 | 3450.0000 | 450.0000 |

| 7932 | MILLER | 1300.00 | 1495.0000 | 195.0000 |

+-------+--------+---------+-----------+----------+

13 rows in set (0.001 sec)

Query19.Write a query to display the following for each employee:-

<ename> earns <salary> monthly but wants <3 times salary>. Label the column as Dream Salary.

MariaDB [employee]> SELECT CONCAT(ename,"earns",sal,"but wants",3\*sal)AS "Dream Salary" FROM emp;

+------------------------------------+

| Dream Salary |

+------------------------------------+

| SMITHearns800.00but wants2400.00 |

| ALLENearns1600.00but wants4800.00 |

| JONESearns2975.00but wants8925.00 |

| MARTINearns1250.00but wants3750.00 |

| BLAKEearns2850.00but wants8550.00 |

| CLERKearns2450.00but wants7350.00 |

| SCOTTearns3000.00but wants9000.00 |

| KINGearns5000.00but wants15000.00 |

| TURNERearns1500.00but wants4500.00 |

| ADAMSearns1100.00but wants3300.00 |

| JAMESearns950.00but wants2850.00 |

| FORDearns3000.00but wants9000.00 |

| MILLERearns1300.00but wants3900.00 |

+------------------------------------+

13 rows in set (0.001 sec)

Query20.Write a query to display the employees name with the first letter capitalized and all other letters lower case and length of their name for all employees whose name start with J, A and M.

MariaDB [employee]> SELECT CONCAT(UPPER(SUBSTRING(ename, 1, 1)), LOWER(SUBSTRING(ename, 2))) AS "Employee Name" FROM emp WHERE (ename LIKE "J%" OR ename LIKE "A%" OR ename LIKE "R%");

+---------------+

| Employee Name |

+---------------+

| Allen |

| Jones |

| Adams |

| James |

+---------------+

4 rows in set (0.001 sec)

Query21. Write a query to display the name, department name, department number for all employees.

Query22. Write a query that displays the unique listing of all jobs that are in department 30.

MariaDB [employee]> SELECT DISTINCT job FROM emp WHERE deptno = 30;

+----------+

| job |

+----------+

| SALESMAN |

| SALSEMAN |

| MANAGER |

| CLERK |

+----------+

4 rows in set (0.001 sec)

Query23. Write a query to display the employee name, department name and location for all employees who earn a commission.

MariaDB [employee]> SELECT e.ename AS "Employee Name", d.dname AS "Department Name", d.loc AS "Department Location" FROM emp e JOIN dept d ON e.deptno = d.depno;

+---------------+-----------------+---------------------+

| Employee Name | Department Name | Department Location |

+---------------+-----------------+---------------------+

| SMITH | RESERCH | DALLAS |

| ALLEN | SALES | CHICAGO |

| JONES | RESERCH | DALLAS |

| MARTIN | SALES | CHICAGO |

| BLAKE | SALES | CHICAGO |

| CLERK | ACCOUNTING | NEW YORK |

| SCOTT | RESERCH | DALLAS |

| KING | ACCOUNTING | NEW YORK |

| TURNER | SALES | CHICAGO |

| ADAMS | RESERCH | DALLAS |

| JAMES | SALES | CHICAGO |

| FORD | RESERCH | DALLAS |

| MILLER | ACCOUNTING | NEW YORK |

+---------------+-----------------+---------------------+

13 rows in set (0.001 sec)

Query24. Write a query to display the employee name and department name for all employees who have 'A' in their name.

Yha deptno 10 vala name nahi aaya isko emp table me mgr NULL h shyad islyea

MariaDB [employee]> SELECT e.ename AS "Employee Name", d.dname AS "Department Name" FROM emp e JOIN dept d ON e.deptno = d.depno WHERE e.ename LIKE "%A%";

+---------------+-----------------+

| Employee Name | Department Name |

+---------------+-----------------+

| ALLEN | SALES |

| MARTIN | SALES |

| BLAKE | SALES |

| ADAMS | RESERCH |

| JAMES | SALES |

+---------------+-----------------+

5 rows in set (0.001 sec)

Query25. Write a query to display the name, job, department number and department name for all employees who work at location DALLAS.

MariaDB [employee]> SELECT e.ename AS "Employee Name", e.job AS "Job", d.depno AS "Department Number", d.dname AS "Department Name" FROM emp e JOIN dept d ON e.deptno = d.depno WHERE d.loc = "DALLAS";

+---------------+---------+-------------------+-----------------+

| Employee Name | Job | Department Number | Department Name |

+---------------+---------+-------------------+-----------------+

| SMITH | CLERK | 20 | RESERCH |

| JONES | MANAGER | 20 | RESERCH |

| SCOTT | ANALYST | 20 | RESERCH |

| ADAMS | CLERK | 20 | RESERCH |

| FORD | ANALYST | 20 | RESERCH |

+---------------+---------+-------------------+-----------------+

5 rows in set (0.001 sec)

Query26. Write a query to display employee name and employee number along with their managers name and managers number.

MariaDB [employee]> SELECT E.ename AS EMPLOYEE\_NAME,E.empno AS EMPLOYEE\_NUMBER ,M.ename AS MANAGER\_NAME , M.empno AS MANAGER\_NUMBER FROM emp E LEFT OUTER JOIN emp M ON E.mgr = M.empno WHERE E.mgr IS NOT NULL;

+---------------+-----------------+--------------+----------------+

| EMPLOYEE\_NAME | EMPLOYEE\_NUMBER | MANAGER\_NAME | MANAGER\_NUMBER |

+---------------+-----------------+--------------+----------------+

| SMITH | 7369 | FORD | 7902 |

| ALLEN | 7499 | BLAKE | 7698 |

| WARD | 7521 | BLAKE | 7698 |

| JONES | 7566 | KING | 7839 |

| MARTIN | 7654 | BLAKE | 7698 |

| BLAKE | 7698 | KING | 7839 |

| CLARK | 7782 | KING | 7839 |

| SCOTT | 7788 | JONES | 7566 |

| TURNER | 7844 | BLAKE | 7698 |

| ADAMS | 7876 | SCOTT | 7788 |

| JAMES | 7900 | BLAKE | 7698 |

| FORD | 7902 | JONES | 7566 |

| MILLER | 7934 | CLARK | 7782 |

+---------------+-----------------+--------------+----------------+

Query27. Write a query to display employee name and employee number along with their managers name and managers number along with the employees who do not have a manager.

MariaDB [employee]> SELECT E.ename AS EMPLOYEE\_NAME,E.empno AS EMPLOYEE\_NUMBER ,M.ename AS MANAGER\_NAME , M.empno AS MANAGER\_NUMBER FROM emp E left outer join emp M ON E.mgr =M.empno;

+---------------+-----------------+--------------+----------------+

| EMPLOYEE\_NAME | EMPLOYEE\_NUMBER | MANAGER\_NAME | MANAGER\_NUMBER |

+---------------+-----------------+--------------+----------------+

| SMITH | 7369 | FORD | 7902 |

| ALLEN | 7499 | BLAKE | 7698 |

| WARD | 7521 | BLAKE | 7698 |

| JONES | 7566 | KING | 7839 |

| MARTIN | 7654 | BLAKE | 7698 |

| BLAKE | 7698 | KING | 7839 |

| CLARK | 7782 | KING | 7839 |

| SCOTT | 7788 | JONES | 7566 |

| KING | 7839 | NULL | NULL |

| TURNER | 7844 | BLAKE | 7698 |

| ADAMS | 7876 | SCOTT | 7788 |

| JAMES | 7900 | BLAKE | 7698 |

| FORD | 7902 | JONES | 7566 |

| MILLER | 7934 | CLARK | 7782 |

+---------------+-----------------+--------------+----------------+

Query28. Write a query to display employee name, department number and all the employees

that work in the same department as the given employee. Do this for all the employees.

MariaDB [employee]> SELECT C.ename, E.deptno,E.ename AS "Colleagues" FROM emp E, emp C WHERE E.deptno = C.deptno AND E.ename != C.ename;

+--------+--------+------------+

| ename | deptno | Colleagues |

+--------+--------+------------+

| SMITH | 20 | JONES |

| SMITH | 20 | SCOTT |

| SMITH | 20 | ADAMS |

| SMITH | 20 | FORD |

| ALLEN | 30 | MARTIN |

| ALLEN | 30 | BLAKE |

| ALLEN | 30 | TURNER |

| ALLEN | 30 | JAMES |

| JONES | 20 | SMITH |

| JONES | 20 | SCOTT |

| JONES | 20 | ADAMS |

| JONES | 20 | FORD |

| MARTIN | 30 | ALLEN |

| MARTIN | 30 | BLAKE |

| MARTIN | 30 | TURNER |

| MARTIN | 30 | JAMES |

| BLAKE | 30 | ALLEN |

| BLAKE | 30 | MARTIN |

| BLAKE | 30 | TURNER |

| BLAKE | 30 | JAMES |

| CLERK | 10 | KING |

| CLERK | 10 | MILLER |

| SCOTT | 20 | SMITH |

| SCOTT | 20 | JONES |

| SCOTT | 20 | ADAMS |

| SCOTT | 20 | FORD |

| KING | 10 | CLERK |

| KING | 10 | MILLER |

| TURNER | 30 | ALLEN |

| TURNER | 30 | MARTIN |

| TURNER | 30 | BLAKE |

| TURNER | 30 | JAMES |

| ADAMS | 20 | SMITH |

| ADAMS | 20 | JONES |

| ADAMS | 20 | SCOTT |

| ADAMS | 20 | FORD |

| JAMES | 30 | ALLEN |

| JAMES | 30 | MARTIN |

| JAMES | 30 | BLAKE |

| JAMES | 30 | TURNER |

| FORD | 20 | SMITH |

| FORD | 20 | JONES |

| FORD | 20 | SCOTT |

| FORD | 20 | ADAMS |

| MILLER | 10 | CLERK |

| MILLER | 10 | KING |

+--------+--------+------------+

Query29. Write a query to display the name, job, department name, salary and grade for all

employees.

MariaDB [employee]> SELECT ename AS NAME,job AS JOB,DNAME AS DEPARTMENT\_NAME,sal AS SALARY,GRADE FROM emp,dept,salgrade WHERE emp.deptno = dept.DEPTNO AND sal BETWEEN salgrade.LOSAL AND salgrade.HISAL;

+--------+----------+-----------------+---------+-------+

| NAME | JOB | DEPARTMENT\_NAME | SALARY | GRADE |

+--------+----------+-----------------+---------+-------+

| SMITH | CLERK | RESEARCH | 800.00 | 1 |

| ALLEN | SALESMAN | SALES | 1600.00 | 3 |

| WARD | SALESMAN | SALES | 1250.00 | 2 |

| JONES | MANAGER | RESEARCH | 2975.00 | 4 |

| MARTIN | SALESMAN | SALES | 1250.00 | 2 |

| BLAKE | MANAGER | SALES | 2850.00 | 4 |

| CLARK | MANAGER | ACCOUNTING | 2450.00 | 4 |

| SCOTT | ANALYST | RESEARCH | 3000.00 | 4 |

| TURNER | SALESMAN | SALES | 1500.00 | 3 |

| ADAMS | CLERK | RESEARCH | 1100.00 | 1 |

| JAMES | CLERK | SALES | 950.00 | 1 |

| FORD | ANALYST | RESEARCH | 3000.00 | 4 |

| MILLER | CLERK | ACCOUNTING | 1300.00 | 2 |

+--------+----------+-----------------+---------+-------+

Query30. Write a query to display all names and hire dates of all employees along with their managers name and hire date for all employees who were hired before their managers.

MariaDB [employee]> SELECT E.ename AS EMPLOYEE\_NAME,E.hiredate AS EMPLOYEE\_HIREDATE ,M.ename AS MANAGER\_NAME , M.hiredate AS MANAGER\_HIREDATE FROM emp E LEFT OUTER JOIN emp M ON E.mgr = M.empno WHERE E.hiredate < M.hiredate;

+---------------+-------------------+--------------+------------------+

| EMPLOYEE\_NAME | EMPLOYEE\_HIREDATE | MANAGER\_NAME | MANAGER\_HIREDATE |

+---------------+-------------------+--------------+------------------+

| SMITH | 1980-12-17 | FORD | 1981-12-03 |

| ALLEN | 1981-02-20 | BLAKE | 1981-05-01 |

| WARD | 1981-02-22 | BLAKE | 1981-05-01 |

| JONES | 1981-04-02 | KING | 1981-11-17 |

| BLAKE | 1981-05-01 | KING | 1981-11-17 |

| CLARK | 1981-06-09 | KING | 1981-11-17 |

+---------------+-------------------+--------------+------------------+

Query31. Write a query to display the highest, lowest, sum and average salary of all employees.

MariaDB [employee]> SELECT MAX(sal) AS HIGHEST\_SALARY , MIN(sal) AS LOWEST\_SALARY ,SUM(sal) AS SUM\_OF\_SALARY , AVG(sal) AS AVERAGE\_SALARY FROM emp;

+----------------+---------------+---------------+----------------+

| HIGHEST\_SALARY | LOWEST\_SALARY | SUM\_OF\_SALARY | AVERAGE\_SALARY |

+----------------+---------------+---------------+----------------+

| 5000.00 | 800.00 | 29025.00 | 2073.214286 |

+----------------+---------------+---------------+----------------+

Query32. Write a query to display minimum, maximum, sum and average salary for each job type.

MariaDB [employee]> SELECT DISTINCT job ,MAX(sal),MIN(sal),SUM(sal),AVG(sal) FROM emp GROUP BY job;

+-----------+----------+----------+----------+-------------+

| job | MAX(sal) | MIN(sal) | SUM(sal) | AVG(sal) |

+-----------+----------+----------+----------+-------------+

| ANALYST | 3000.00 | 3000.00 | 6000.00 | 3000.000000 |

| CLERK | 1300.00 | 800.00 | 4150.00 | 1037.500000 |

| MANAGER | 2975.00 | 2450.00 | 8275.00 | 2758.333333 |

| PRESIDENT | 5000.00 | 5000.00 | 5000.00 | 5000.000000 |

| SALESMAN | 1600.00 | 1250.00 | 5600.00 | 1400.000000 |

+-----------+----------+----------+----------+-------------+

Query33. Write a query to display the number of people with the same job.

MariaDB [employee]> SELECT DISTINCT job ,COUNT(job) AS NUMBER\_OF\_PERSON FROM emp GROUP BY job;

+-----------+------------------+

| job | NUMBER\_OF\_PERSON |

+-----------+------------------+

| ANALYST | 2 |

| CLERK | 4 |

| MANAGER | 3 |

| PRESIDENT | 1 |

| SALESMAN | 4 |

+-----------+------------------+

Query34. Write a query to display the difference between the highest and lowest salaries.

MariaDB [employee]> SELECT ( MAX(sal) - MIN(sal) ) AS DIFFERENCE\_BTW\_MAX\_AND\_MIN\_SALARY FROM emp;

+-----------------------------------+

| DIFFERENCE\_BTW\_MAX\_AND\_MIN\_SALARY |

+-----------------------------------+

| 4200.00 |

+-----------------------------------+

Query35. Write a query to display the manager number and the salary of the lowest paid employee for that manager. Exclude any groups where the manager id is not known. Exclude

any groups where the minimum salary is less than $1000.

MariaDB [employee]> SELECT mgr,MIN(sal) FROM emp WHERE sal > 1000 AND mgr IS NOT NULL;

+------+----------+

| mgr | MIN(sal) |

+------+----------+

| 7698 | 1100.00 |

+------+----------+

Query36. Write a query to display the department name, location name, number of employees and the average salary for all employees in that department.

MariaDB [employee]> SELECT D.DNAME ,D.LOC ,COUNT( E.deptno) ,AVG(E.sal) FROM dept D,emp E WHERE D.DEPTNO=E.deptno GROUP BY D.DNAME;

+------------+----------+------------------+-------------+

| DNAME | LOC | COUNT( E.deptno) | AVG(E.sal) |

+------------+----------+------------------+-------------+

| ACCOUNTING | NEW YORK | 3 | 2916.666667 |

| RESEARCH | DALLAS | 5 | 2175.000000 |

| SALES | CHICAGO | 6 | 1566.666667 |

+------------+----------+------------------+-------------+

Query37. Write a query to display the employee name and hire date for all employees in the same department as Blake.

MariaDB [employee]> SELECT ename ,hiredate FROM emp WHERE deptno IN (SELECT deptno FROM emp WHERE ename ='BLAKE');

+--------+------------+

| ename | hiredate |

+--------+------------+

| ALLEN | 1981-02-20 |

| WARD | 1981-02-22 |

| MARTIN | 1981-09-28 |

| BLAKE | 1981-05-01 |

| TURNER | 1981-09-08 |

| JAMES | 1981-12-03 |

+--------+------------+

Query38. Write a query to display the employee number and employee name for all employees who earn more than the average salary.

MariaDB [employee]> SELECT empno , ename FROM emp WHERE sal > (SELECT AVG(sal) FROM emp);

+-------+-------+

| empno | ename |

+-------+-------+

| 7566 | JONES |

| 7698 | BLAKE |

| 7782 | CLARK |

| 7788 | SCOTT |

| 7839 | KING |

| 7902 | FORD |

+-------+-------+

Query39. Write a query to display the employee number and name for all employees who work in a department with any employee whose name contains a T.

E2

MariaDB [employee]> SELECT empno,ename FROM emp WHERE deptno IN (SELECT deptno FROM emp WHERE ename LIKE '%T%');

+-------+--------+

| empno | ename |

+-------+--------+

| 7369 | SMITH |

| 7499 | ALLEN |

| 7521 | WARD |

| 7566 | JONES |

| 7654 | MARTIN |

| 7698 | BLAKE |

| 7788 | SCOTT |

| 7844 | TURNER |

| 7876 | ADAMS |

| 7900 | JAMES |

| 7902 | FORD |

+-------+--------+

Query40. Write a query to display the employee name and salary of all employees who report

to King.

MariaDB [employee]> SELECT ename , sal FROM emp WHERE mgr in (SELECT empno FROM emp WHERE ename = 'KING');

+-------+---------+

| ename | sal |

+-------+---------+

| JONES | 2975.00 |

| BLAKE | 2850.00 |

| CLARK | 2450.00 |

+-------+---------+

Query41. Write a query to display the department number, name and job for all employees in

the Sales department.

MariaDB [employee]> SELECT E.deptno ,E.ename, E.job FROM emp E,dept D WHERE E.deptno = D.DEPTNO AND D.DNAME ='SALES';

+--------+--------+----------+

| deptno | ename | job |

+--------+--------+----------+

| 30 | ALLEN | SALESMAN |

| 30 | WARD | SALESMAN |

| 30 | MARTIN | SALESMAN |

| 30 | BLAKE | MANAGER |

| 30 | TURNER | SALESMAN |

| 30 | JAMES | CLERK |

+--------+--------+----------+

Query42.Write a query to display the employee number, name and salary for all employees

who earn more than the average salary and who work in a department with any employee with

a T in their name.

MariaDB [employee]> SELECT empno,ename,sal FROM emp WHERE deptno IN (SELECT deptno FROM emp WHERE ename LIKE '%T%') AND sal > (SELECT AVG(sal) FROM emp);

+-------+-------+---------+

| empno | ename | sal |

+-------+-------+---------+

| 7566 | JONES | 2975.00 |

| 7698 | BLAKE | 2850.00 |

| 7788 | SCOTT | 3000.00 |

| 7902 | FORD | 3000.00 |

+-------+-------+---------+