MariaDB [(none)]> create database DBS;

MariaDB [(none)]> use DBS

Database changed

MariaDB [DBS]> CREATE TABLE emp(empno int NOT NULL,ename varchar(10) default NULL,job varchar(9) default NULL,mgr int default NULL,hiredate date default NULL,sal decimal(7,2) default NULL,comm decimal(7,2) default NULL,deptno int default NULL);

Query OK, 0 rows affected (0.08 sec)

MariaDB [DBS]> CREATE TABLE dept(deptno int default NULL,dname varchar(14) default NULL,loc varchar(13) default NULL) engine=myisam;

Query OK, 0 rows affected (0.00 sec)

MariaDB [DBS]> CREATE TABLE salgrade(grade int,losal decimal(7,2),hisal decimal(7,2)) engine=memory;

Query OK, 0 rows affected (0.00 sec)

MariaDB [DBS]> CREATE TABLE bonus (ename VARCHAR(10), job VARCHAR(9), sal decimal(7,2), comm decimal(7,2));

Query OK, 0 rows affected (0.07 sec)

MariaDB [DBS]> INSERT INTO emp VALUES('7369', 'SMITH', 'CLERK', '7902', '1980-12-17', '800.00', NULL, '20');

Query OK, 1 row affected (0.04 sec)

MariaDB [DBS]> INSERT INTO emp

VALUES('7499', 'ALLEN', 'SALESMAN', '7698', '1981-02-20', '1600.00', '300.00', '30');

Query OK, 1 row affected (0.01 sec)

MariaDB [DBS]> INSERT INTO dept VALUES('10','ACCOUNTING','NEWYORK'); INSERT INTO dept VALUES('20','RESEARCH','DALLAS');

Query OK, 1 row affected (0.00 sec)

Query OK, 1 row affected (0.00 sec)

MariaDB [DBS]> INSERT INTO salgrade VALUES(1,700,1200);INSERT INTO salgrade VALUES(2,1201,1400);INSERT INTO salgrade VALUES(3,1401,2000);INSERT INTO salgrade VALUES(4,2001,3000);INSERT INTO salgrade VALUES(5,3001,9999);

Query OK, 1 row affected (0.00 sec)

MariaDB [DBS]> select table_name,engine from information_schema.tables where table_schema='employees'; Empty set (0.00 sec)MariaDB [DBS]> select*from emp e join dept d on e.deptno=d.deptno; +-----+ empno ename job mgr hiredate sal comm deptno deptno dname loc +-----+ | 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | | 20 | | 20 | RESEARCH | DALLAS | 1 row in set (0.00 sec)MariaDB [DBS]> start transection; ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'transection' at line 1 MariaDB [DBS]> use DBS Database changed MariaDB [DBS]> start transection; ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'transection' at line 1 MariaDB [DBS]> start transaction; Query OK, 0 rows affected (0.00 sec) MariaDB [DBS]> select * from emp ->; +-----+ | empno | ename | job | mgr | hiredate | sal | comm | deptno | +-----+ | 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | | 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 | +-----+ 2 rows in set (0.00 sec)**MariaDB** [DBS]> **INSERT INTO** emp VALUES('7521','WARD','SALESMAN','7698','1981-02-22','1250.00','500.00','30');INSERT INTO emp VALUES('7566','JONES','MANAGER','7839','1981-04-02','2975.00',NULL,'20');INSERT INTO emp VALUES('7654', 'MARTIN', 'SALESMAN', '7698', '1981-09-

28','1250.00','1400.00','30');INSERT **INTO** emp VALUES('7698', 'BLAKE', 'MANAGER', '7839', '1981-05-01','2850.00',NULL,'30');INSERT **INTO** emp VALUES('7782','CLARK','MANAGER','7839','1981-06-09','2450.00',NULL,'10');INSERT **INTO** emp VALUES('7788', 'SCOTT', 'ANALYST', '7566', '1982-12-09','3000.00',NULL,'20');INSERT **INTO** emp VALUES('7839', 'KING', 'PRESIDENT', NULL, '1981-11-17','5000.00',NULL,'10');INSERT **INTO** emp VALUES('7844', 'TURNER', 'SALESMAN', '7698', '1981-09-08','1500.00','0.00','30');INSERT INTO emp VALUES('7876', 'ADAMS', 'CLERK', '7788', '1983-01-12', '1100.00', NULL, '20'); INSERT **INTO** emp VALUES('7900','JAMES','CLERK','7698','1981-12-03','950.00',NULL,'30');INSERT **INTO** VALUES('7902', 'FORD', 'ANALYST', '7566', '1981-12-03', '3000.00', NULL, '20'); INSERT INTO emp VALUES('7934', 'MILLER', 'CLERK', '7782', '1982-01-23', '1300.00', NULL, '10'); Ouery OK. 1 row affected (0.00 sec) Ouery OK, 1 row affected (0.00 sec) Query OK, 1 row affected (0.01 sec) Ouery OK, 1 row affected (0.01 sec) Query OK, 1 row affected (0.00 sec) Query OK, 1 row affected (0.00 sec) Query OK, 1 row affected (0.00 sec)

Query OK, 1 row affected (0.01 sec)

Query OK, 1 row affected (0.00 sec)

MariaDB [DBS]> start transaction;

Query OK, 0 rows affected (0.00 sec)

MariaDB [DBS]> update emp setsal=sal+100 where empno=7844;INSERT INTO emp VALUES('8001', 'SHERMAN', 'ANALYST', '7782', '1988-01-23', '2300.00', NULL, '20');

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '=sal+100 where empno=7844' at line 1

Ouery OK, 1 row affected (0.00 sec)

MariaDB [DBS]> update emp set sal=sal+100 where empno=7844;INSERT INTO emp VALUES('8001', 'SHERMAN', 'ANALYST', '7782', '1988-01-23', '2300.00', NULL, '20');

```
Query OK, 1 row affected (0.08 sec)
Rows matched: 1 Changed: 1 Warnings: 0
Query OK, 1 row affected (0.05 sec)
MariaDB [DBS]> commit;
Query OK, 0 rows affected (0.00 sec)
MariaDB [DBS]> select * from emp;
+-----+
| empno | ename | job | mgr | hiredate | sal | comm | deptno |
+-----+
| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL |
| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 |
                                                           30 |
| 7521 | WARD | | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 500.00 |
                                                           30 |
| 7566|JONES | MANAGER | 7839|1981-04-02|2975.00| NULL|
                                                          20 |
| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 |
                                                           30 |
| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL |
                                                           30 |
| 7782 | CLARK | 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 | 7698 | 1981-09-08 | 1600.00 | 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 | 1981-12-03 | 3000.00 | NULL |
| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |
| 8001 | SHERMAN | ANALYST | 7782 | 1988-01-23 | 2300.00 | NULL | 20 |
| 8001 | SHERMAN | ANALYST | 7782 | 1988-01-23 | 2300.00 | NULL |
                                                            20 |
+-----+
16 \text{ rows in set } (0.00 \text{ sec})
MariaDB [DBS]> update emp set sal=sal+100 where empno=7521; delete emp where
empno=8001
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0
MariaDB [DBS]> ROLLBACK;
Query OK, 0 rows affected (0.00 sec)
MariaDB [DBS]> 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 |
| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1350.00 | 500.00 |
                                                                30 |
| 7566|JONES | MANAGER | 7839|1981-04-02|2975.00| NULL|
                                                                20 |
| 7654|MARTIN|SALESMAN|7698|1981-09-28|1250.00|1400.00| 30|
| 7698|BLAKE | MANAGER | 7839|1981-05-01|2850.00 | NULL |
                                                                 30 |
| 7782 | CLARK | 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 | 7698 | 1981-09-08 | 1600.00 | 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 | 1981-12-03 | 3000.00 | NULL |
| 7934|MILLER | CLERK | 7782|1982-01-23|1300.00| NULL| 10|
| 8001 | SHERMAN | ANALYST | 7782 | 1988-01-23 | 2300.00 | NULL |
                                                                  20 |
| 8001 | SHERMAN | ANALYST | 7782 | 1988-01-23 | 2300.00 | NULL |
                                                                  20 |
+-----+
16 \text{ rows in set } (0.00 \text{ sec})
MariaDB [DBS]> start transaction:
Ouery OK, 0 rows affected (0.00 sec)
MariaDB [DBS]> update emp set sal=sal+200 where empno=7566;INSERT INTO dept
VALUES('40', 'OPERATIONS', 'BOSTON');
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0
Query OK, 1 row affected (0.00 sec)
MariaDB [DBS]> ROLLBACK;
Query OK, 0 rows affected, 1 warning (0.01 sec)
MariaDB [DBS]> ROLLBACK;
Query OK, 0 rows affected (0.00 sec)
MariaDB [DBS]> alter table salgrade engine = innodb;
Query OK, 5 rows affected (0.11 sec)
Records: 5 Duplicates: 0 Warnings: 0
MariaDB [DBS]> select * from salgrade;
+----+
grade | losal | hisal |
+----+
  1 | 700.00 | 1200.00 |
   2 | 1201.00 | 1400.00 |
   3 | 1401.00 | 2000.00 |
```

```
4 | 2001.00 | 3000.00 |
  5 | 3001.00 | 9999.00 |
+----+
5 rows in set (0.00 \text{ sec})
MariaDB [DBS]> select * from dept;
ERROR 2006 (HY000): MySQL server has gone away
No connection. Trying to reconnect...
Connection id: 33
Current database: DBS
+----+
| deptno | dname | loc |
+----+
  10 | ACCOUNTING | NEWYORK |
  20 | RESEARCH | DALLAS |
  40 | OPERATIONS | BOSTON |
+----+
3 \text{ rows in set } (0.54 \text{ sec})
MariaDB [DBS]> start transaction;
Query OK, 0 rows affected (0.00 sec)
MariaDB [DBS]> delete from dept where deptno=40;
Query OK, 1 row affected (0.00 sec)
MariaDB [DBS]> select * from dept;
+----+
| deptno | dname | loc |
+----+
  10 | ACCOUNTING | NEWYORK |
  20 | RESEARCH | DALLAS |
+----+
2 \text{ rows in set } (0.00 \text{ sec})
MariaDB [DBS]> ROLLBACK;
Query OK, 0 rows affected, 1 warning (0.00 sec)
MariaDB [DBS]> select * from dept;
+----+
| deptno | dname | loc |
+----+
  10 | ACCOUNTING | NEWYORK |
  20 | RESEARCH | DALLAS |
+----+
```

```
2 \text{ rows in set } (0.00 \text{ sec})
MariaDB [DBS]> update emp set sal=sal+200 where empno=7566;INSERT INTO dept
VALUES('40', 'OPERATIONS', 'BOSTON');
Query OK, 1 row affected (0.08 sec)
Rows matched: 1 Changed: 1 Warnings: 0
Query OK, 1 row affected (0.00 sec)
MariaDB [DBS]> select * from dept;
+----+
| deptno | dname | loc |
+----+
  10 | ACCOUNTING | NEWYORK |
  20 | RESEARCH | DALLAS |
  40 | OPERATIONS | BOSTON |
+----+
3 \text{ rows in set } (0.00 \text{ sec})
MariaDB [DBS]> ROLLBACK;
Ouery OK, 0 rows affected (0.00 sec)
MariaDB [DBS]> select * from dept;
+----+
| deptno | dname | loc |
+----+
  10 | ACCOUNTING | NEWYORK |
  20 | RESEARCH | DALLAS |
  40 | OPERATIONS | BOSTON |
+----+
3 \text{ rows in set } (0.00 \text{ sec})
MariaDB [DBS]> select * from emp where hiredate='1981%';
Empty set, 1 warning (0.02 sec)
MariaDB [DBS]> 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 |
| 7521 | WARD | | SALESMAN | 7698 | 1981-02-22 | 1350.00 | 500.00 |
                                                           30 |
| 7566|JONES | MANAGER | 7839|1981-04-02|3175.00| NULL|
                                                           201
| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 |
                                                            30 |
| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL |
                                                           30 |
```

```
| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL |
| 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 | 7698 | 1981-09-08 | 1600.00 | 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 | 1981-12-03 | 3000.00 | NULL |
                                                          20 |
| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |
| 8001 | SHERMAN | ANALYST | 7782 | 1988-01-23 | 2300.00 | NULL |
                                                             20 |
| 8001 | SHERMAN | ANALYST | 7782 | 1988-01-23 | 2300.00 | NULL |
16 \text{ rows in set } (0.00 \text{ sec})
MariaDB [DBS]> select * from emp where hiredate like '1981%';
+-----+
| empno | ename | job | mgr | hiredate | sal | comm | deptno |
+-----+
| 7499|ALLEN||SALESMAN||7698||1981-02-20||1600.00||300.00||
                                                           30 |
| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1350.00 | 500.00 |
                                                           30 |
| 7566|JONES | MANAGER | 7839|1981-04-02|3175.00 | NULL |
                                                           20 |
| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 |
                                                            30 |
| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL |
                                                            30 |
| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL |
                                                            10 |
| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL |
                                                            10 |
| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1600.00 | 0.00 |
                                                           30 |
| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL |
| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL |
+-----+
10 \text{ rows in set } (0.00 \text{ sec})
MariaDB [DBS]>
```