```
#01
MariaDB [(none)]> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| phpmyadmin         |
| sports_event       |
| test               |
+--------------------+
6 rows in set (0.068 sec)

#02
MariaDB [(none)]> create database if not exists dbspr;
Query OK, 1 row affected (0.005 sec)

#03
MariaDB [(none)]> show databases;
+--------------------+
| Database           |
+--------------------+
| dbspr              |
| information_schema |
| mysql              |
| performance_schema |
| phpmyadmin         |
| sports_event       |
| test               |
+--------------------+
7 rows in set (0.002 sec)

#04
MariaDB [(none)]> use dbspr;
Database changed

#05
MariaDB [dbspr]> show tables;
Empty set (0.001 sec)

#06
MariaDB [dbspr]> create or replace table tblest
    -> (
    -> eid int primary key auto_increment,
    -> ename text not null,
    -> sal decimal(12,2) unsigned not null,
    -> tax10 decimal(9,2) unsigned not null,
    -> tax20 decimal(9,2) unsigned not null,
    -> tax30 decimal(9,2) unsigned not null,
    -> taxtot decimal(10,2) unsigned not null,
    -> np decimal(12,2)  unsigned not null
    -> )
    -> auto_increment = 1001;
Query OK, 0 rows affected (0.009 sec)

#07
MariaDB [dbspr]> show tables;
+-----------------+
| Tables_in_dbspr |
+-----------------+
| tblest          |
+-----------------+
1 row in set (0.001 sec)

#08
MariaDB [dbspr]> desc tblest;
+--------+-----------------------+------+-----+---------+----------------+
| Field  | Type                  | Null | Key | Default | Extra          |
```

```
+--------+-----------------------+------+-----+---------+----------------+
| eid    | int(11)               | NO   | PRI | NULL    | auto_increment |
| ename  | text                  | NO   |     | NULL    |                |
| sal    | decimal(12,2) unsigned | NO  |     | NULL    |                |
| tax10  | decimal(9,2) unsigned | NO   |     | NULL    |                |
| tax20  | decimal(9,2) unsigned | NO   |     | NULL    |                |
| tax30  | decimal(9,2) unsigned | NO   |     | NULL    |                |
| taxtot | decimal(10,2) unsigned | NO  |     | NULL    |                |
| np     | decimal(12,2) unsigned | NO  |     | NULL    |                |
+--------+-----------------------+------+-----+---------+----------------+
8 rows in set (0.045 sec)
```

#09
```
MariaDB [dbspr]> select * from tblest;
Empty set (0.076 sec)
```

#10
```
MariaDB [dbspr]> select count(*) from tblest;
+----------+
| count(*) |
+----------+
|        0 |
+----------+
1 row in set (0.001 sec)
```

#11
```
MariaDB [dbspr]> insert into tblest (ename,sal) values ('x5',160000);
Query OK, 1 row affected, 5 warnings (0.004 sec)
```

#12
```
MariaDB [dbspr]> show warnings;
+---------+------+-------------------------------------------+
| Level   | Code | Message                                   |
+---------+------+-------------------------------------------+
| Warning | 1364 | Field 'tax10' doesn't have a default value  |
| Warning | 1364 | Field 'tax20' doesn't have a default value  |
| Warning | 1364 | Field 'tax30' doesn't have a default value  |
| Warning | 1364 | Field 'taxtot' doesn't have a default value |
| Warning | 1364 | Field 'np' doesn't have a default value     |
+---------+------+-------------------------------------------+
5 rows in set (0.001 sec)
```

#13
```
MariaDB [dbspr]> select * from tblest;
+------+-------+-----------+-------+-------+-------+--------+------+
| eid  | ename | sal       | tax10 | tax20 | tax30 | taxtot | np   |
+------+-------+-----------+-------+-------+-------+--------+------+
| 1001 | x5    | 160000.00 |  0.00 |  0.00 |  0.00 |   0.00 | 0.00 |
+------+-------+-----------+-------+-------+-------+--------+------+
1 row in set (0.002 sec)
```

#14
```
MariaDB [dbspr]> set @x=88;
Query OK, 0 rows affected (0.000 sec)
```

#15
```
MariaDB [dbspr]> select @x;
+------+
| @x   |
+------+
|   88 |
+------+
1 row in set (0.001 sec)
```

#16
```
MariaDB [dbspr]> select
    -> case
    -> when @x < 0 then 'Negative'
    -> when @x > 0 then 'positive'
```

```
        -> else 'Neutral'
        -> end 'test';
+----------+
| test     |
+----------+
| positive |
+----------+
1 row in set (0.001 sec)


#17
MariaDB [dbspr]> update tblest set tax10=
    -> case
    -> when sal > 500000 then 250000
    -> when sal > 250000 then (sal - 250000)
    -> else 0
    -> end * 10 / 100;
Query OK, 0 rows affected (0.001 sec)
Rows matched: 1  Changed: 0  Warnings: 0


#18
MariaDB [dbspr]> update tblest set tax20 =
    -> case
    -> when sal >1000000 then 500000
    -> when sal >500000 then (sal-500000)
    -> end * 20 / 100;
Query OK, 0 rows affected, 1 warning (0.001 sec)
Rows matched: 1  Changed: 0  Warnings: 1


#19
MariaDB [dbspr]> update tblest set tax30 =
    -> case
    -> when sal > 1000000 then 1000000
    -> else 0
    -> end * 30 / 100;
Query OK, 0 rows affected (0.001 sec)
Rows matched: 1  Changed: 0  Warnings: 0


#20
MariaDB [dbspr]> update tblest set taxtot = tax10+tax20+tax30;
Query OK, 0 rows affected (0.001 sec)
Rows matched: 1  Changed: 0  Warnings: 0


#21
MariaDB [dbspr]> update tblest set np = sal-taxtot;
Query OK, 1 row affected (0.004 sec)
Rows matched: 1  Changed: 1  Warnings: 0


#22
MariaDB [dbspr]> select * from tblest;
+------+-------+------------+----------+-----------+-----------+-----------+------------+
| eid  | ename | sal        | tax10    | tax20     | tax30     | taxtot    | np         |
+------+-------+------------+----------+-----------+-----------+-----------+------------+
| 1001 | x5    | 1600000.00 | 25000.00 | 100000.00 | 300000.00 | 425000.00 | 1175000.00 |
+------+-------+------------+----------+-----------+-----------+-----------+------------+
1 row in set (0.001 sec)



#23
MariaDB [dbspr]> select trigger_name from information_schema.triggers where trigger_schema =
database();
Empty set (0.039 sec)


#24
MariaDB [dbspr]> drop trigger if exists trginsest;
Query OK, 0 rows affected, 1 warning (0.001 sec)

#25
MariaDB [dbspr]> show warnings;
```

```
+-------+------+-----------------------+
| Level | Code | Message               |
+-------+------+-----------------------+
| Note  | 1360 | Trigger does not exist |
+-------+------+-----------------------+
1 row in set (0.001 sec)
```

#26
MariaDB [dbspr]> delimiter //

#27
MariaDB [dbspr]> Create or replace trigger trginsest
    -> before insert on tblest
    -> for each row
    -> begin
    ->
    -> set new.tax10 =
    -> case
    -> when new.sal > 500000 then 250000
    -> when new.sal >250000 then (sal - 250000)
    ->
    -> else 0
    -> end * 10/100;
    ->
    -> set new.tax20 =
    -> case
    -> when new.sal > 1000000 then 500000
    -> when new.sal >500000 then (sal -500000)
    ->
    -> else 0
    -> end * 20/100;
    ->
    -> set new.tax30 =
    -> case
    -> when new.sal > 1000000 then (sal -1000000)
    -> else 0
    -> end * 30/100;
    ->
    -> set new.taxtot=new.tax10+new.tax20+new.tax30;
    -> set new.np = new.sal - new.taxtot;
    ->
    -> end
    -> //
Query OK, 0 rows affected (0.011 sec)
#28
MariaDB [dbspr]> delimiter ;

#29
MariaDB [dbspr]> select trigger_name from information_schema.triggers where trigger_schema =
database();
```
+--------------+
| trigger_name |
+--------------+
| trginsest    |
+--------------+
1 row in set (0.043 sec)
```
#30
MariaDB [dbspr]> select * from tblest;
```
+------+-------+------------+----------+-----------+-----------+-----------+------------+
| eid  | ename | sal        | tax10    | tax20     | tax30     | taxtot    | np         |
+------+-------+------------+----------+-----------+-----------+-----------+------------+
| 1001 | x5    | 1600000.00 | 25000.00 | 100000.00 | 300000.00 | 425000.00 | 1175000.00 |
+------+-------+------------+----------+-----------+-----------+-----------+------------+
1 row in set (0.003 sec)
```
#31
MariaDB [dbspr]> insert into tblest
    -> (ename,sal)
    -> values

```
      -> ('x3', 1200000),
      -> ('x1', 800000),
      -> ('x2', 400000),
      -> ('x4', 200000);
Query OK, 4 rows affected (0.005 sec)
Records: 4  Duplicates: 0  Warnings: 0


#32
MariaDB [dbspr]> select * from tblest;
+------+-------+------------+----------+-----------+-----------+-----------+------------+
| eid  | ename | sal        | tax10    | tax20     | tax30     | taxtot    | np         |
+------+-------+------------+----------+-----------+-----------+-----------+------------+
| 1001 | x5    | 1600000.00 | 25000.00 | 100000.00 | 300000.00 | 425000.00 | 1175000.00 |
| 1002 | x3    | 1200000.00 | 25000.00 | 100000.00 |  60000.00 | 185000.00 | 1015000.00 |
| 1003 | x1    |  800000.00 | 25000.00 |  60000.00 |      0.00 |  85000.00 |  715000.00 |
| 1004 | x2    |  400000.00 | 15000.00 |      0.00 |      0.00 |  15000.00 |  385000.00 |
| 1005 | x4    |  200000.00 |     0.00 |      0.00 |      0.00 |      0.00 |  200000.00 |
+------+-------+------------+----------+-----------+-----------+-----------+------------+
5 rows in set (0.001 sec)



#33
MariaDB [dbspr]> update tblest set sal = 1600000 where eid = 1005;
Query OK, 1 row affected (0.013 sec)
Rows matched: 1  Changed: 1  Warnings: 0


#34
MariaDB [dbspr]> select * from tblest;
+------+-------+------------+----------+-----------+-----------+-----------+------------+
| eid  | ename | sal        | tax10    | tax20     | tax30     | taxtot    | np         |
+------+-------+------------+----------+-----------+-----------+-----------+------------+
| 1001 | x5    | 1600000.00 | 25000.00 | 100000.00 | 300000.00 | 425000.00 | 1175000.00 |
| 1002 | x3    | 1200000.00 | 25000.00 | 100000.00 |  60000.00 | 185000.00 | 1015000.00 |
| 1003 | x1    |  800000.00 | 25000.00 |  60000.00 |      0.00 |  85000.00 |  715000.00 |
| 1004 | x2    |  400000.00 | 15000.00 |      0.00 |      0.00 |  15000.00 |  385000.00 |
| 1005 | x4    | 1600000.00 |     0.00 |      0.00 |      0.00 |      0.00 |  200000.00 |
+------+-------+------------+----------+-----------+-----------+-----------+------------+
5 rows in set (0.001 sec)


#35
ariaDB [dbspr]> drop trigger if exists trgupdest;
Query OK, 0 rows affected, 1 warning (0.001 sec)


#36
MariaDB [dbspr]> show warnings;
+-------+------+------------------------+
| Level | Code | Message                |
+-------+------+------------------------+
| Note  | 1360 | Trigger does not exist |
+-------+------+------------------------+
1 row in set (0.003 sec)


#37
MariaDB [dbspr]> delimiter //


#38
MariaDB [dbspr]> create or replace trigger trgupdest
    -> before update on tblest
    -> for each row
    -> begin
    ->
    -> end
    -> //
Query OK, 0 rows affected (0.013 sec)


#39
MariaDB [dbspr]> delimiter ;


#40
```

```
MariaDB [dbspr]> select trigger_name from information_schema.triggers where trigger_schema =
database();
+--------------+
| trigger_name |
+--------------+
| trginsest    |
| trgupdest    |
+--------------+
2 rows in set (0.053 sec
```

#41
```
MariaDB [dbspr]> update tblest set sal = 200000 where eid = 1005;
Query OK, 1 row affected (0.012 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

#42
```
MariaDB [dbspr]> select * from tblest;
+------+-------+------------+-----------+-----------+-----------+-----------+------------+
| eid  | ename | sal        | tax10     | tax20     | tax30     | taxtot    | np         |
+------+-------+------------+-----------+-----------+-----------+-----------+------------+
| 1001 | x5    | 1600000.00 | 25000.00  | 100000.00 | 180000.00 | 305000.00 | 1295000.00 |
| 1002 | x3    | 1200000.00 | 25000.00  | 100000.00 | 60000.00  | 185000.00 | 1015000.00 |
| 1003 | x1    |  800000.00 | 25000.00  | 60000.00  |     0.00  | 85000.00  | 715000.00  |
| 1004 | x2    |  400000.00 | 15000.00  |     0.00  |     0.00  | 15000.00  | 385000.00  |
| 1005 | x4    |  200000.00 |     0.00  |     0.00  |     0.00  |     0.00  | 200000.00  |
+------+-------+------------+-----------+-----------+-----------+-----------+------------+
5 rows in set (0.001 sec)
```

#43
```
MariaDB [dbspr]> update tblest set sal = 200000 where eid = 1005;
Query OK, 0 rows affected (0.002 sec)
Rows matched: 1  Changed: 0  Warnings: 0
```

#44
```
MariaDB [dbspr]> select * from tblest;
+------+-------+------------+-----------+-----------+-----------+-----------+------------+
| eid  | ename | sal        | tax10     | tax20     | tax30     | taxtot    | np         |
+------+-------+------------+-----------+-----------+-----------+-----------+------------+
| 1001 | x5    | 1600000.00 | 25000.00  | 100000.00 | 180000.00 | 305000.00 | 1295000.00 |
| 1002 | x3    | 1200000.00 | 25000.00  | 100000.00 | 60000.00  | 185000.00 | 1015000.00 |
| 1003 | x1    |  800000.00 | 25000.00  | 60000.00  |     0.00  | 85000.00  | 715000.00  |
| 1004 | x2    |  400000.00 | 15000.00  |     0.00  |     0.00  | 15000.00  | 385000.00  |
| 1005 | x4    |  200000.00 |     0.00  |     0.00  |     0.00  |     0.00  | 200000.00  |
+------+-------+------------+-----------+-----------+-----------+-----------+------------+
5 rows in set (0.001 sec)
```

#45
```
MariaDB [dbspr]> delete from tblest where eid = 1003;
Query OK, 1 row affected (0.005 sec)
```

#46
```
MariaDB [dbspr]> select * from tblest;
+------+-------+------------+-----------+-----------+-----------+-----------+------------+
| eid  | ename | sal        | tax10     | tax20     | tax30     | taxtot    | np         |
+------+-------+------------+-----------+-----------+-----------+-----------+------------+
| 1001 | x5    | 1600000.00 | 25000.00  | 100000.00 | 180000.00 | 305000.00 | 1295000.00 |
| 1002 | x3    | 1200000.00 | 25000.00  | 100000.00 | 60000.00  | 185000.00 | 1015000.00 |
| 1004 | x2    |  400000.00 | 15000.00  |     0.00  |     0.00  | 15000.00  | 385000.00  |
| 1005 | x4    |  200000.00 |     0.00  |     0.00  |     0.00  |     0.00  | 200000.00  |
+------+-------+------------+-----------+-----------+-----------+-----------+------------+
4 rows in set (0.001 sec)
```

#47
```
MariaDB [dbspr]> drop trigger if exists trgdelest;
Query OK, 0 rows affected, 1 warning (0.001 sec)
```

#48
```
MariaDB [dbspr]> show warnings;
+---------+------+------------------------+
```

```
| Level | Code | Message                |
+-------+------+------------------------+
| Note  | 1360 | Trigger does not exist |
+-------+------+------------------------+
1 row in set (0.001 sec)
```

#49
```
MariaDB [dbspr]> delimiter //
```

#50
```
MariaDB [dbspr]> create or replace trigger trgdelest
    -> before delete
    -> on tblest
    -> for each row
    -> begin
    ->
    -> singnal sqlstate '12345'
    -> set message_text = 'Denied delete a row task';
    ->
    -> end
    -> //
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 'sqlstate '12345'
set message_text = 'Denied delete a row task';

end' at line 7
```

#51
```
MariaDB [dbspr]> delimiter ;
```

#52
```
MariaDB [dbspr]> select * from tblest ;
+------+-------+------------+----------+-----------+-----------+-----------+------------+
| eid  | ename | sal        | tax10    | tax20     | tax30     | taxtot    | np         |
+------+-------+------------+----------+-----------+-----------+-----------+------------+
| 1001 | x5    | 1600000.00 | 25000.00 | 100000.00 | 180000.00 | 305000.00 | 1295000.00 |
| 1002 | x3    | 1200000.00 | 25000.00 | 100000.00 |  60000.00 | 185000.00 | 1015000.00 |
| 1004 | x2    |  400000.00 | 15000.00 |      0.00 |      0.00 |  15000.00 |  385000.00 |
| 1005 | x4    |  200000.00 |     0.00 |      0.00 |      0.00 |      0.00 |  200000.00 |
+------+-------+------------+----------+-----------+-----------+-----------+------------+
4 rows in set (0.001 sec)
```

#53
```
MariaDB [dbspr]> delete from tblest where eid = 1005;
Query OK, 1 row affected (0.006 sec)
```

#54
```
MariaDB [dbspr]> select * from tblest;
+------+-------+------------+----------+-----------+-----------+-----------+------------+
| eid  | ename | sal        | tax10    | tax20     | tax30     | taxtot    | np         |
+------+-------+------------+----------+-----------+-----------+-----------+------------+
| 1001 | x5    | 1600000.00 | 25000.00 | 100000.00 | 180000.00 | 305000.00 | 1295000.00 |
```

#55
```
MariaDB [dbspr]> select trigger_name from information_schema.triggers where trigger_schema =
database();
+--------------+
| trigger_name |
+--------------+
| trginsest    |
| trgupdest    |
+--------------+
2 rows in set (0.065 sec)
```