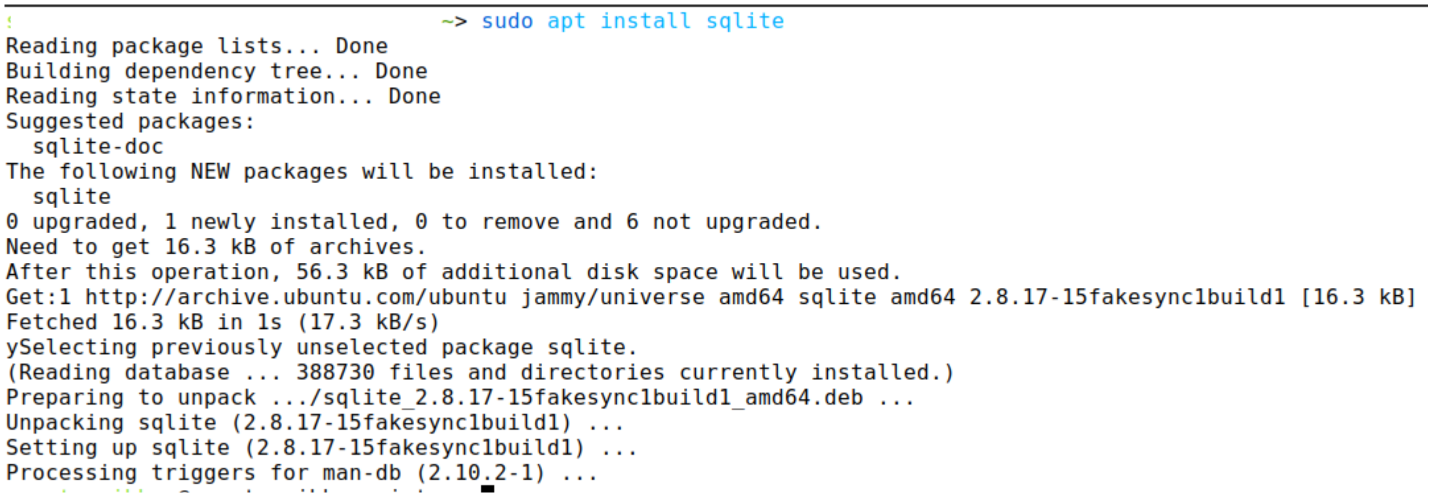
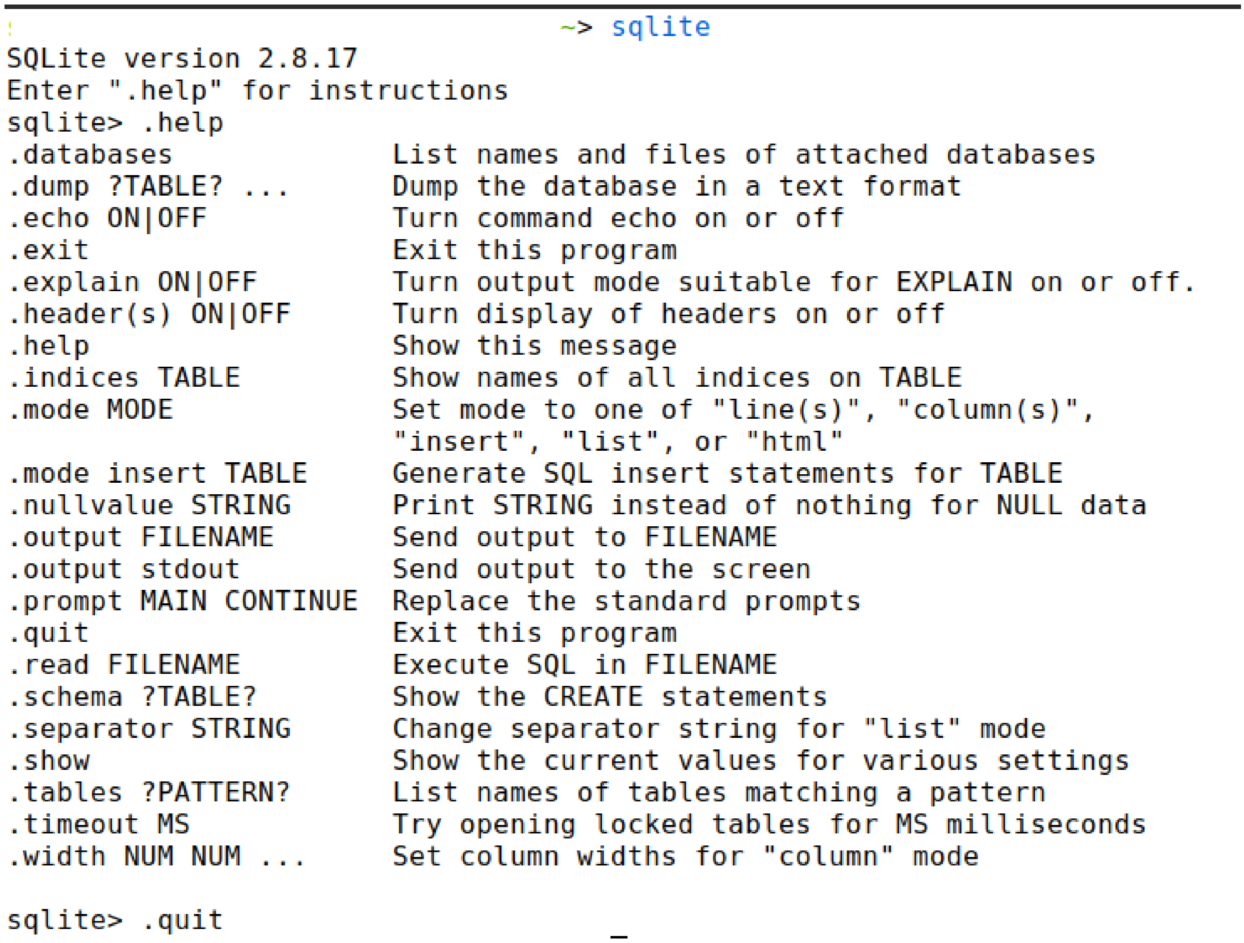
Experiment no: 3

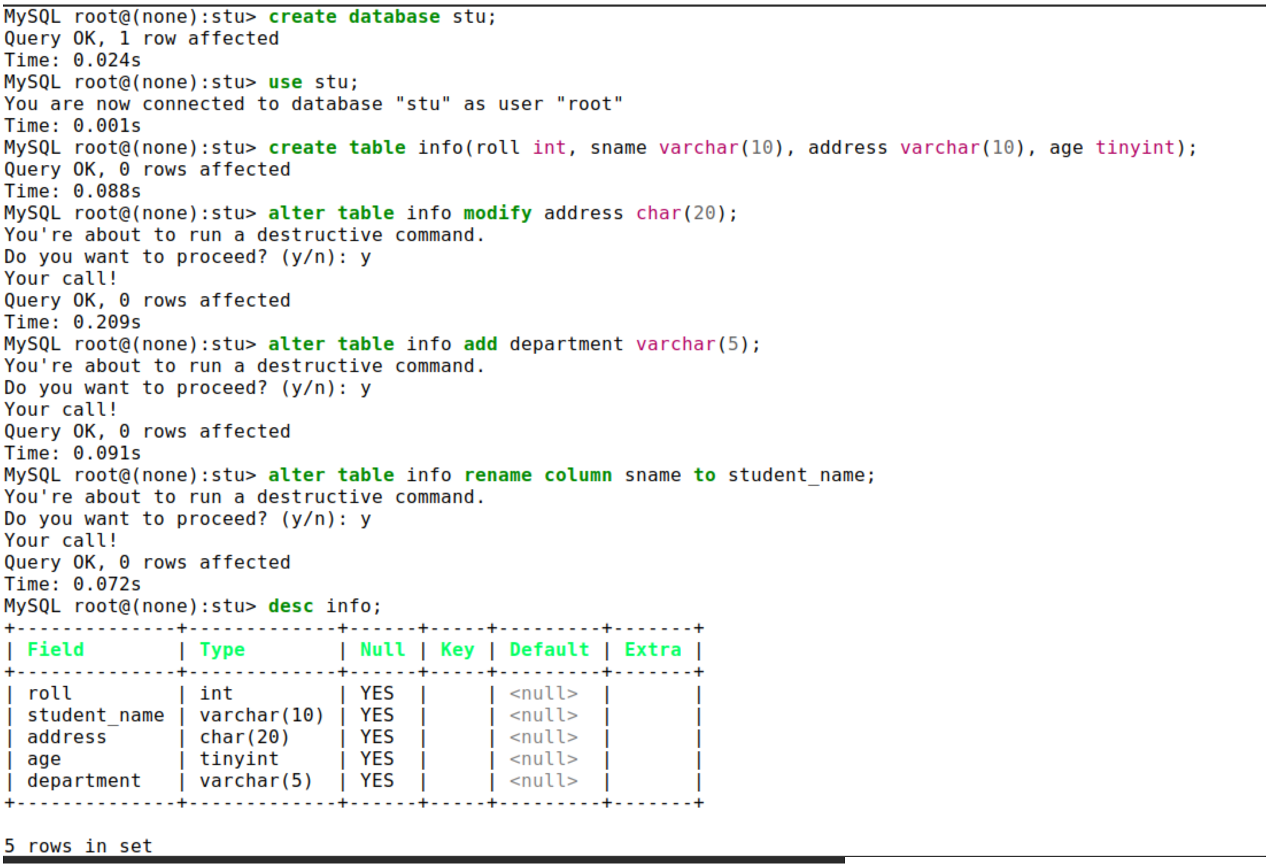


```
~> sudo apt install sqlite
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Suggested packages:
  sqlite-doc
The following NEW packages will be installed:
  sqlite
0 upgraded, 1 newly installed, 0 to remove and 6 not upgraded.
Need to get 16.3 kB of archives.
After this operation, 56.3 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu jammy/universe amd64 sqlite amd64 2.8.17-15fakesync1build1 [16.3 kB]
Fetched 16.3 kB in 1s (17.3 kB/s)
ySelecting previously unselected package sqlite.
(Reading database ... 388730 files and directories currently installed.)
Preparing to unpack .../sqlite_2.8.17-15fakesync1build1_amd64.deb ...
Unpacking sqlite (2.8.17-15fakesync1build1) ...
Setting up sqlite (2.8.17-15fakesync1build1) ...
Processing triggers for man-db (2.10.2-1) ...
```

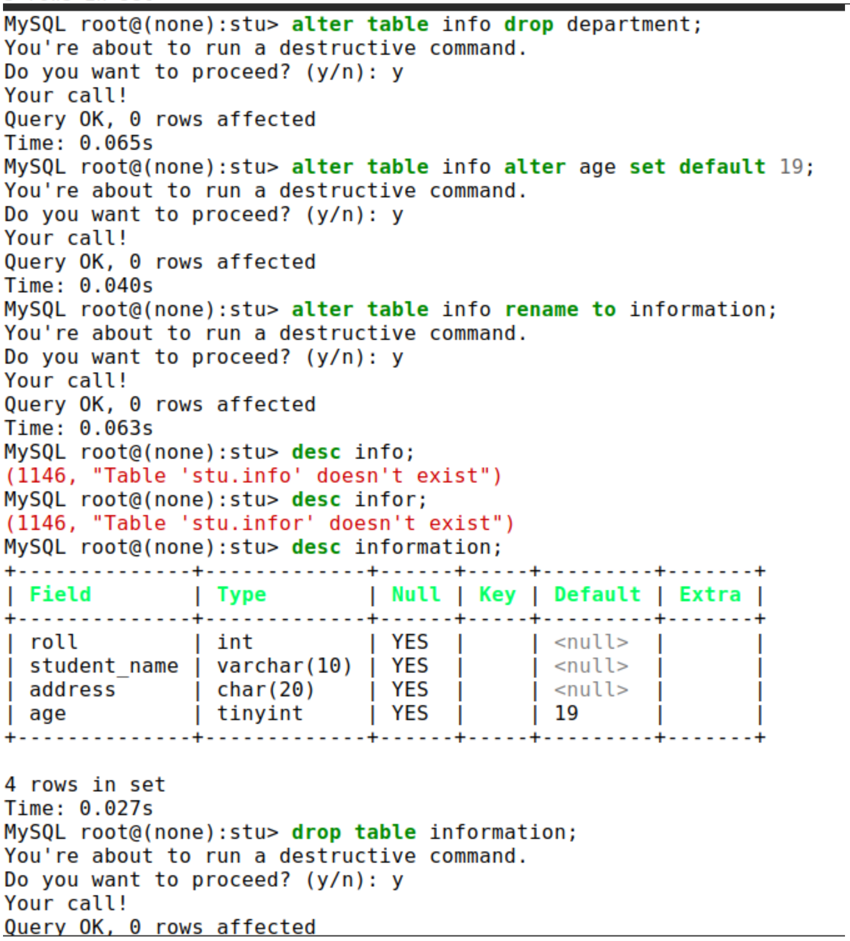


```
~> sqlite
SQLite version 2.8.17
Enter ".help" for instructions
sqlite> .help
.databases             List names and files of attached databases
.dump ?TABLE? ...      Dump the database in a text format
.echo ON|OFF           Turn command echo on or off
.exit                  Exit this program
.explain ON|OFF        Turn output mode suitable for EXPLAIN on or off.
.header(s) ON|OFF      Turn display of headers on or off
.help                  Show this message
.indices TABLE         Show names of all indices on TABLE
.mode MODE             Set mode to one of "line(s)", "column(s)",
                       "insert", "list", or "html"
.mode insert TABLE     Generate SQL insert statements for TABLE
.nullvalue STRING      Print STRING instead of nothing for NULL data
.output FILENAME       Send output to FILENAME
.output stdout         Send output to the screen
.prompt MAIN CONTINUE  Replace the standard prompts
.quit                  Exit this program
.read FILENAME         Execute SQL in FILENAME
.schema ?TABLE?        Show the CREATE statements
.separator STRING      Change separator string for "list" mode
.show                  Show the current values for various settings
.tables ?PATTERN?      List names of tables matching a pattern
.timeout MS            Try opening locked tables for MS milliseconds
.width NUM NUM ...     Set column widths for "column" mode

sqlite> .quit
```

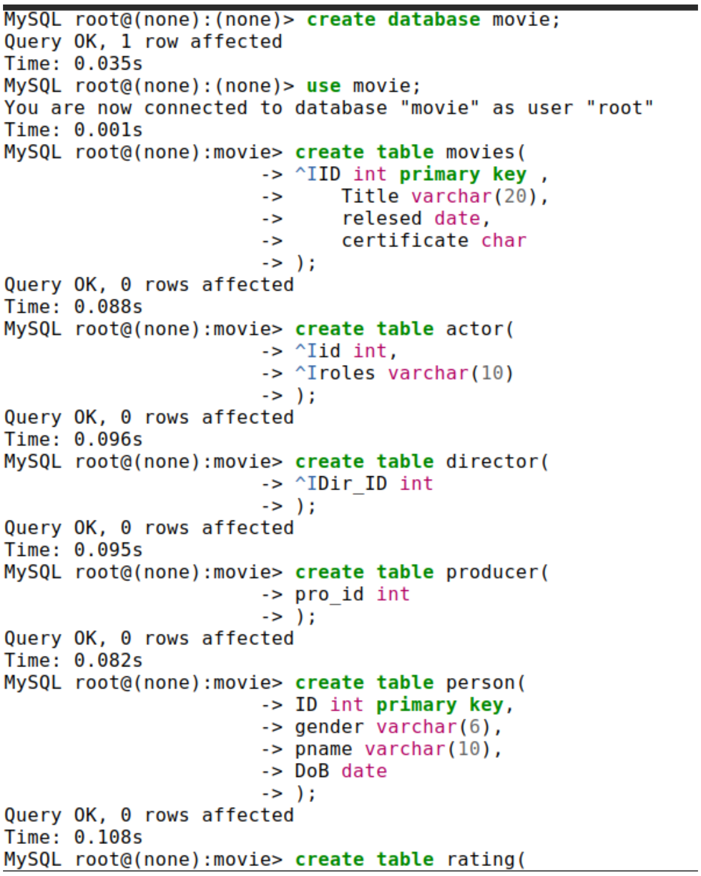
Experiment no: 5



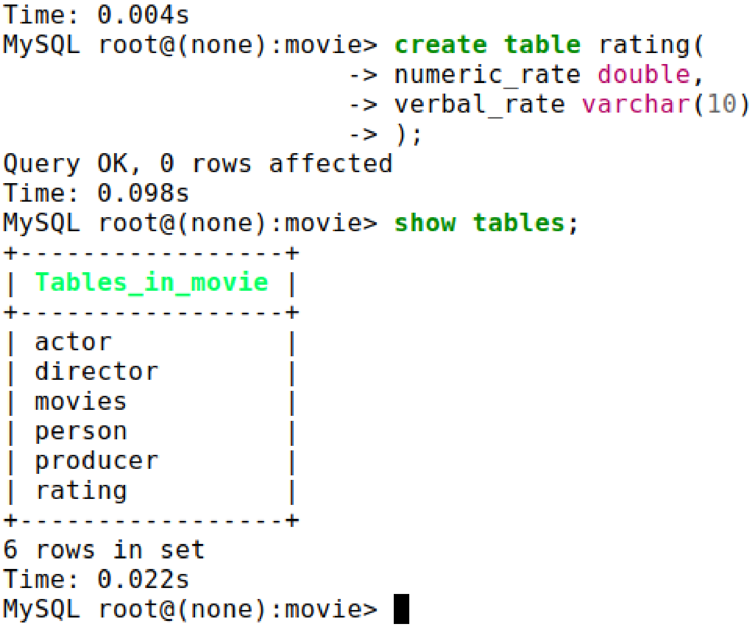
```
MySQL root@(none):stu> create database stu;
Query OK, 1 row affected
Time: 0.024s
MySQL root@(none):stu> use stu;
You are now connected to database "stu" as user "root"
Time: 0.001s
MySQL root@(none):stu> create table info(roll int, sname varchar(10), address varchar(10), age tinyint);
Query OK, 0 rows affected
Time: 0.088s
MySQL root@(none):stu> alter table info modify address char(20);
You're about to run a destructive command.
Do you want to proceed? (y/n): y
Your call!
Query OK, 0 rows affected
Time: 0.209s
MySQL root@(none):stu> alter table info add department varchar(5);
You're about to run a destructive command.
Do you want to proceed? (y/n): y
Your call!
Query OK, 0 rows affected
Time: 0.091s
MySQL root@(none):stu> alter table info rename column sname to student_name;
You're about to run a destructive command.
Do you want to proceed? (y/n): y
Your call!
Query OK, 0 rows affected
Time: 0.072s
MySQL root@(none):stu> desc info;
+--------------+-------------+------+-----+---------+-------+
| Field        | Type        | Null | Key | Default | Extra |
+--------------+-------------+------+-----+---------+-------+
| roll         | int         | YES  |     | <null>  |       |
| student_name | varchar(10) | YES  |     | <null>  |       |
| address      | char(20)    | YES  |     | <null>  |       |
| age          | tinyint     | YES  |     | <null>  |       |
| department   | varchar(5)  | YES  |     | <null>  |       |
+--------------+-------------+------+-----+---------+-------+

5 rows in set
```



```
MySQL root@(none):stu> alter table info drop department;
You're about to run a destructive command.
Do you want to proceed? (y/n): y
Your call!
Query OK, 0 rows affected
Time: 0.065s
MySQL root@(none):stu> alter table info alter age set default 19;
You're about to run a destructive command.
Do you want to proceed? (y/n): y
Your call!
Query OK, 0 rows affected
Time: 0.040s
MySQL root@(none):stu> alter table info rename to information;
You're about to run a destructive command.
Do you want to proceed? (y/n): y
Your call!
Query OK, 0 rows affected
Time: 0.063s
MySQL root@(none):stu> desc info;
(1146, "Table 'stu.info' doesn't exist")
MySQL root@(none):stu> desc infor;
(1146, "Table 'stu.infor' doesn't exist")
MySQL root@(none):stu> desc information;
+--------------+-------------+------+-----+---------+-------+
| Field        | Type        | Null | Key | Default | Extra |
+--------------+-------------+------+-----+---------+-------+
| roll         | int         | YES  |     | <null>  |       |
| student_name | varchar(10) | YES  |     | <null>  |       |
| address      | char(20)    | YES  |     | <null>  |       |
| age          | tinyint     | YES  |     | 19      |       |
+--------------+-------------+------+-----+---------+-------+

4 rows in set
Time: 0.027s
MySQL root@(none):stu> drop table information;
You're about to run a destructive command.
Do you want to proceed? (y/n): y
Your call!
Query OK, 0 rows affected
```

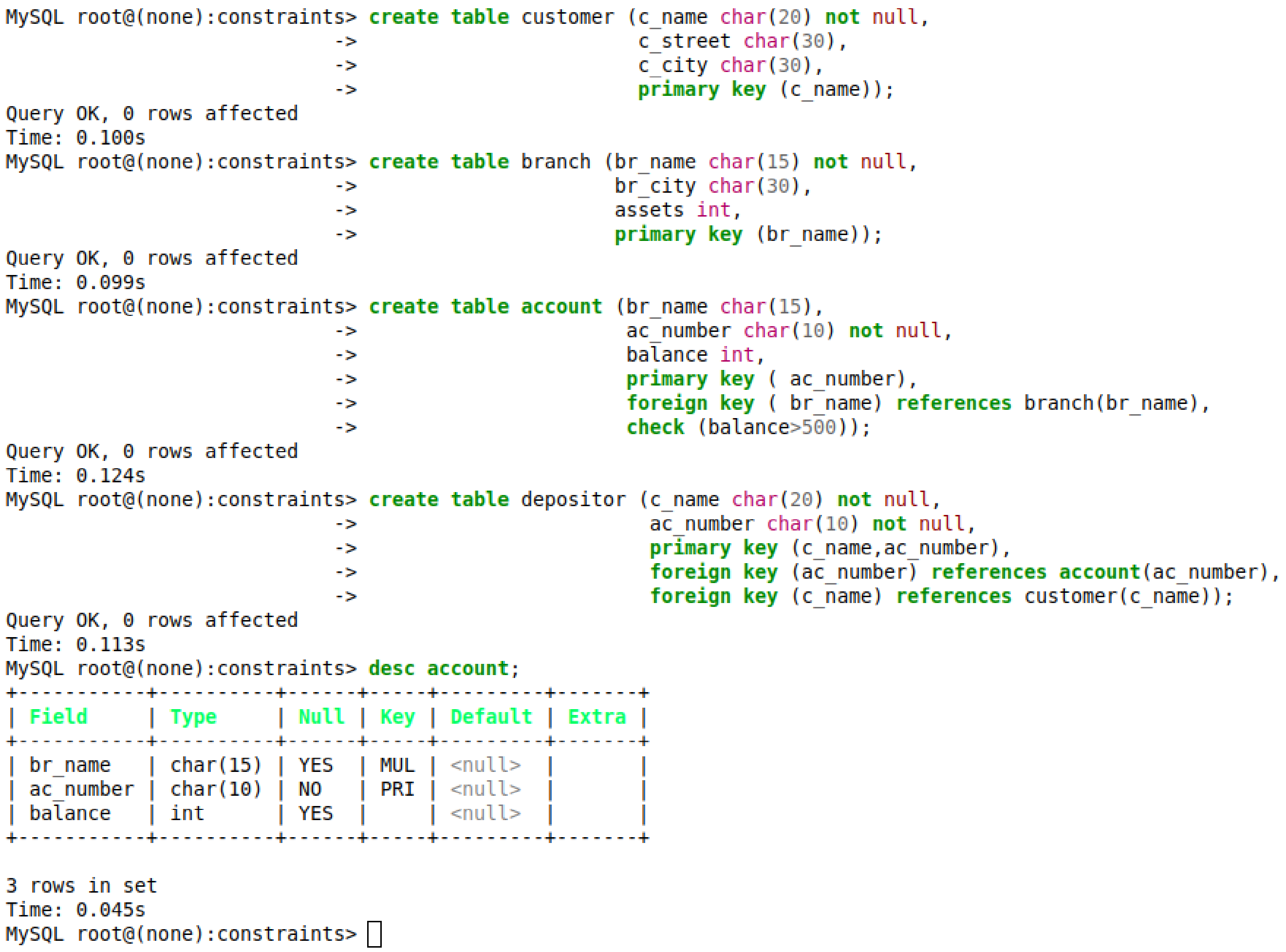


```
MySQL root@(none):(none)> create database movie;
Query OK, 1 row affected
Time: 0.035s
MySQL root@(none):(none)> use movie;
You are now connected to database "movie" as user "root"
Time: 0.001s
MySQL root@(none):movie> create table movies(
                      -> ^IID int primary key ,
                      ->     Title varchar(20),
                      ->     relesed date,
                      ->     certificate char
                      -> );
Query OK, 0 rows affected
Time: 0.088s
MySQL root@(none):movie> create table actor(
                      -> ^Iid int,
                      -> ^Iroles varchar(10)
                      -> );
Query OK, 0 rows affected
Time: 0.096s
MySQL root@(none):movie> create table director(
                      -> ^IDir_ID int
                      -> );
Query OK, 0 rows affected
Time: 0.095s
MySQL root@(none):movie> create table producer(
                      -> pro_id int
                      -> );
Query OK, 0 rows affected
Time: 0.082s
MySQL root@(none):movie> create table person(
                      -> ID int primary key,
                      -> gender varchar(6),
                      -> pname varchar(10),
                      -> DoB date
                      -> );
Query OK, 0 rows affected
Time: 0.108s
MySQL root@(none):movie> create table rating(
```



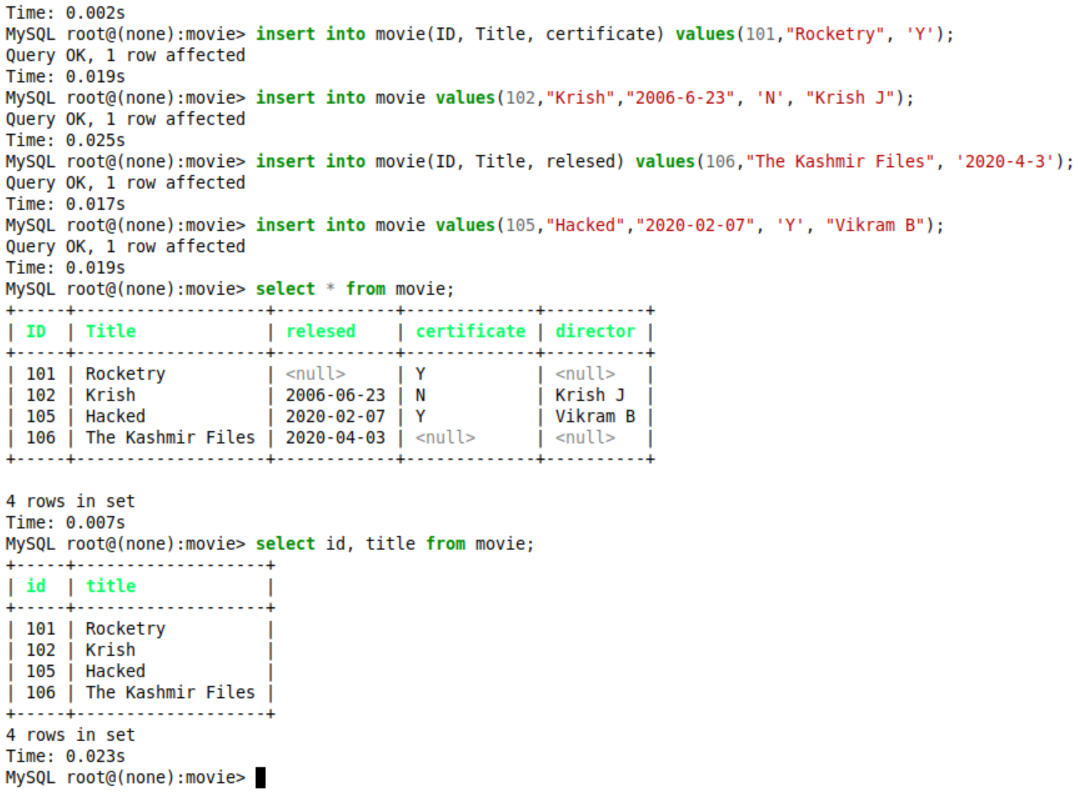
```
Time: 0.004s
MySQL root@(none):movie> create table rating(
                      -> numeric_rate double,
                      -> verbal_rate varchar(10)
                      -> );
Query OK, 0 rows affected
Time: 0.098s
MySQL root@(none):movie> show tables;
+-----------------+
| Tables_in_movie |
+-----------------+
| actor           |
| director        |
| movies          |
| person          |
| producer        |
| rating          |
+-----------------+
6 rows in set
Time: 0.022s
MySQL root@(none):movie>
```

Experiment No: 6

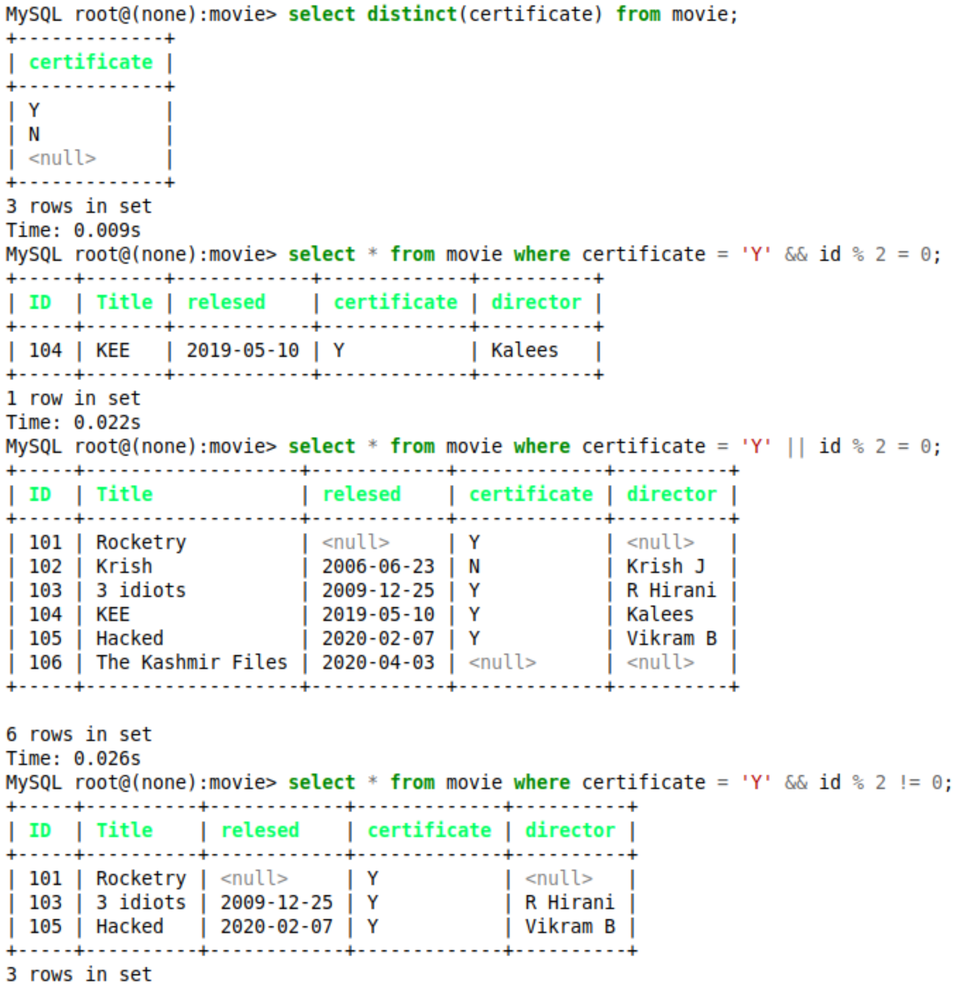


```
MySQL root@(none):constraints> create table customer (c_name char(20) not null,
                            ->                        c_street char(30),
                            ->                        c_city char(30),
                            ->                        primary key (c_name));
Query OK, 0 rows affected
Time: 0.100s
MySQL root@(none):constraints> create table branch (br_name char(15) not null,
                            ->                      br_city char(30),
                            ->                      assets int,
                            ->                      primary key (br_name));
Query OK, 0 rows affected
Time: 0.099s
MySQL root@(none):constraints> create table account (br_name char(15),
                            ->                       ac_number char(10) not null,
                            ->                       balance int,
                            ->                       primary key ( ac_number),
                            ->                       foreign key ( br_name) references branch(br_name),
                            ->                       check (balance>500));
Query OK, 0 rows affected
Time: 0.124s
MySQL root@(none):constraints> create table depositor (c_name char(20) not null,
                            ->                         ac_number char(10) not null,
                            ->                         primary key (c_name,ac_number),
                            ->                         foreign key (ac_number) references account(ac_number),
                            ->                         foreign key (c_name) references customer(c_name));
Query OK, 0 rows affected
Time: 0.113s
MySQL root@(none):constraints> desc account;
+-----------+----------+------+-----+---------+-------+
| Field     | Type     | Null | Key | Default | Extra |
+-----------+----------+------+-----+---------+-------+
| br_name   | char(15) | YES  | MUL | <null>  |       |
| ac_number | char(10) | NO   | PRI | <null>  |       |
| balance   | int      | YES  |     | <null>  |       |
+-----------+----------+------+-----+---------+-------+

3 rows in set
Time: 0.045s
MySQL root@(none):constraints>
```

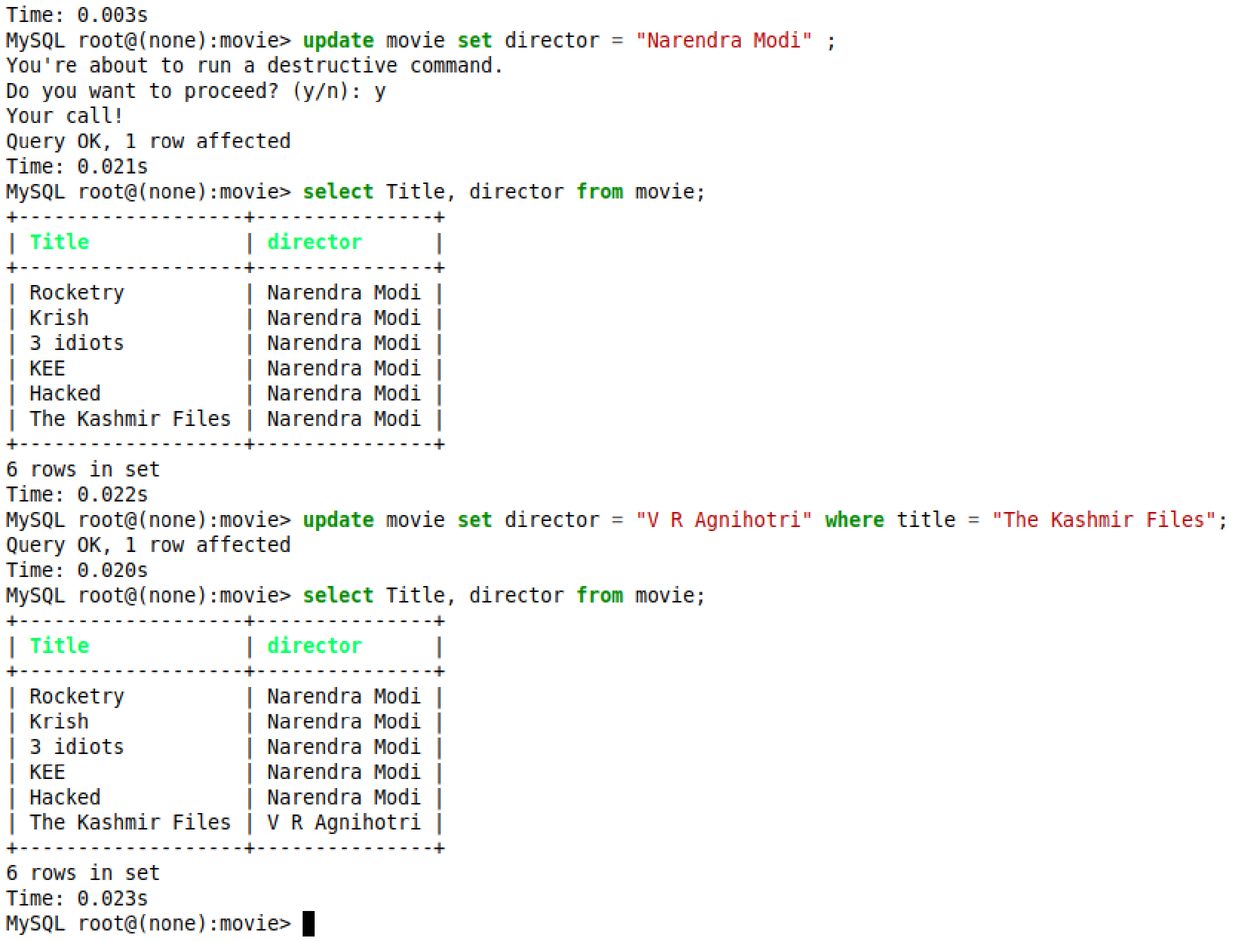
Experiment no.: 7



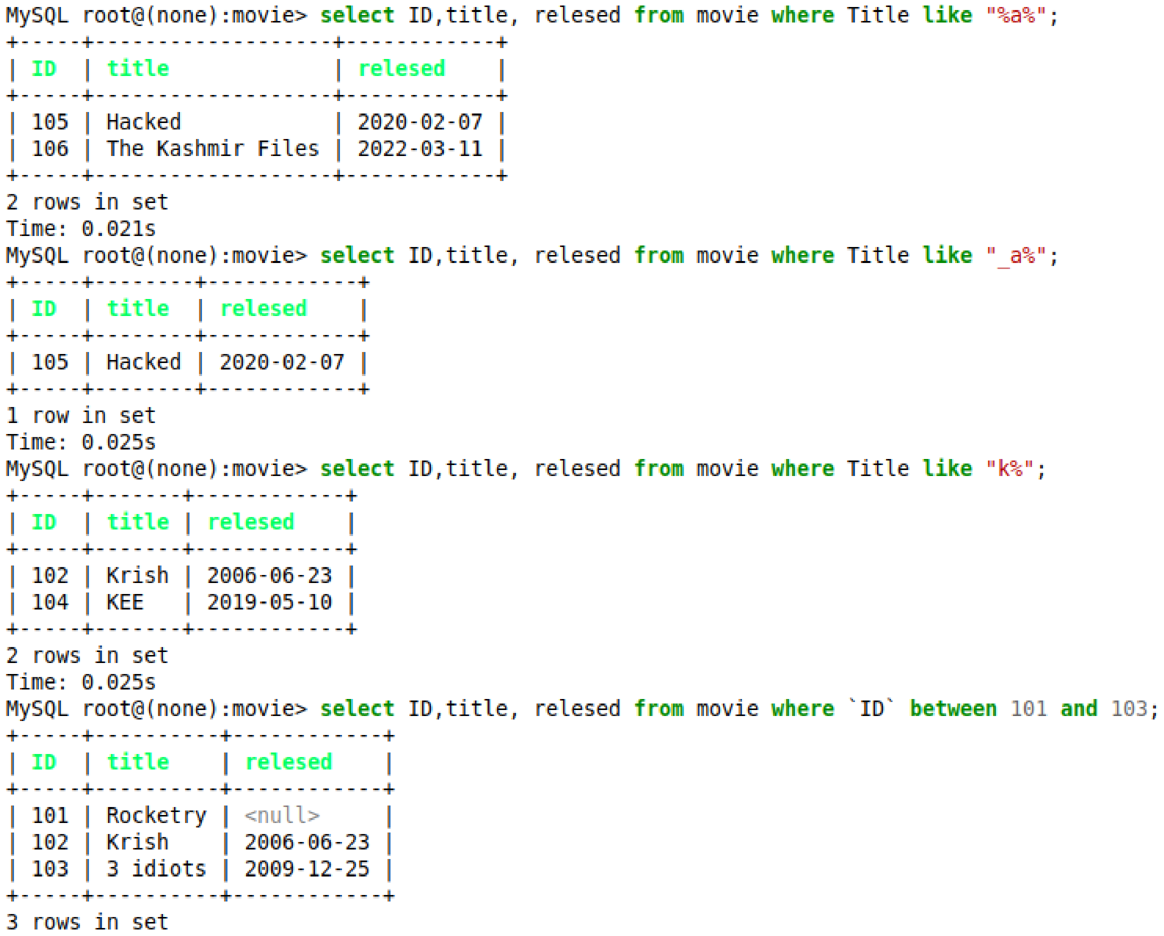
```
Time: 0.002s
MySQL root@(none):movie> insert into movie(ID, Title, certificate) values(101,"Rocketry", 'Y');
Query OK, 1 row affected
Time: 0.019s
MySQL root@(none):movie> insert into movie values(102,"Krish","2006-6-23", 'N', "Krish J");
Query OK, 1 row affected
Time: 0.025s
MySQL root@(none):movie> insert into movie(ID, Title, relesed) values(106,"The Kashmir Files", '2020-4-3');
Query OK, 1 row affected
Time: 0.017s
MySQL root@(none):movie> insert into movie values(105,"Hacked","2020-02-07", 'Y', "Vikram B");
Query OK, 1 row affected
Time: 0.019s
MySQL root@(none):movie> select * from movie;
+-----+-------------------+------------+-------------+----------+
| ID  | Title             | relesed    | certificate | director |
+-----+-------------------+------------+-------------+----------+
| 101 | Rocketry          | <null>     | Y           | <null>   |
| 102 | Krish             | 2006-06-23 | N           | Krish J  |
| 105 | Hacked            | 2020-02-07 | Y           | Vikram B |
| 106 | The Kashmir Files | 2020-04-03 | <null>      | <null>   |
+-----+-------------------+------------+-------------+----------+

4 rows in set
Time: 0.007s
MySQL root@(none):movie> select id, title from movie;
+-----+-------------------+
| id  | title             |
+-----+-------------------+
| 101 | Rocketry          |
| 102 | Krish             |
| 105 | Hacked            |
| 106 | The Kashmir Files |
+-----+-------------------+
4 rows in set
Time: 0.023s
MySQL root@(none):movie> █
```



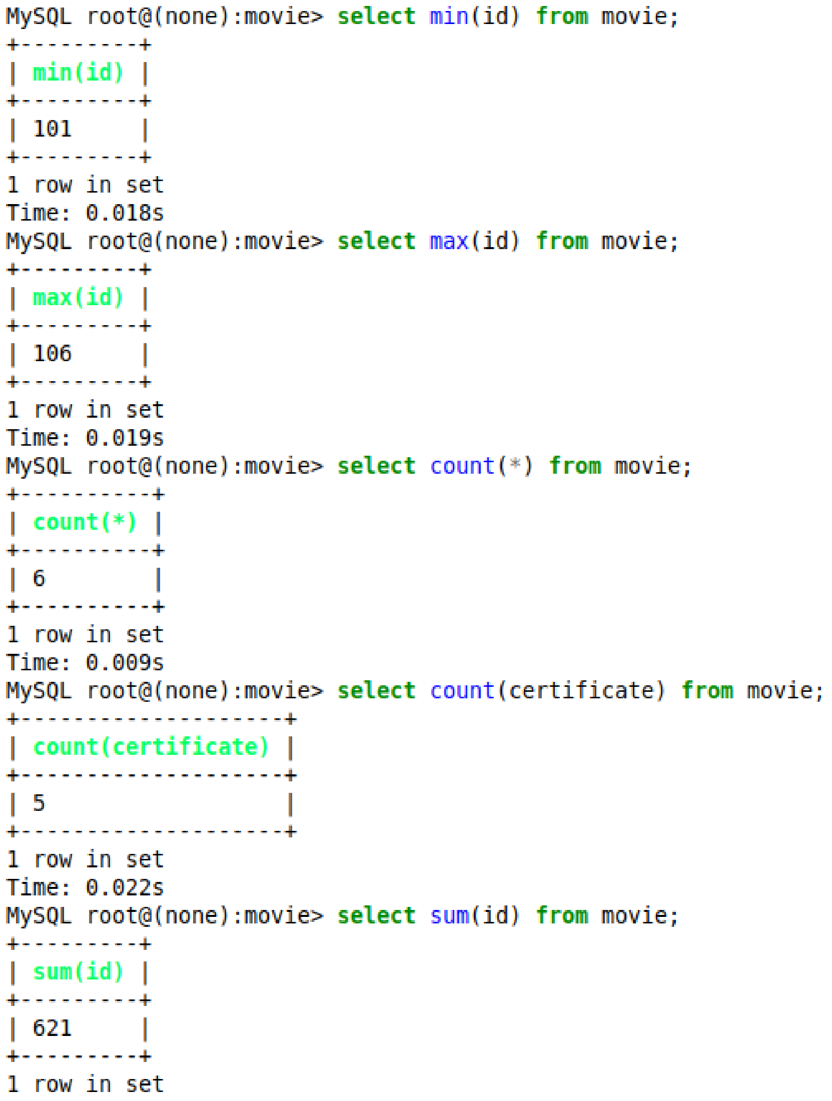
```
MySQL root@(none):movie> select distinct(certificate) from movie;
+-------------+
| certificate |
+-------------+
| Y           |
| N           |
| <null>      |
+-------------+
3 rows in set
Time: 0.009s
MySQL root@(none):movie> select * from movie where certificate = 'Y' && id % 2 = 0;
+-----+-------+------------+-------------+----------+
| ID  | Title | relesed    | certificate | director |
+-----+-------+------------+-------------+----------+
| 104 | KEE   | 2019-05-10 | Y           | Kalees   |
+-----+-------+------------+-------------+----------+
1 row in set
Time: 0.022s
MySQL root@(none):movie> select * from movie where certificate = 'Y' || id % 2 = 0;
+-----+-------------------+------------+-------------+----------+
| ID  | Title             | relesed    | certificate | director |
+-----+-------------------+------------+-------------+----------+
| 101 | Rocketry          | <null>     | Y           | <null>   |
| 102 | Krish             | 2006-06-23 | N           | Krish J  |
| 103 | 3 idiots          | 2009-12-25 | Y           | R Hirani |
| 104 | KEE               | 2019-05-10 | Y           | Kalees   |
| 105 | Hacked            | 2020-02-07 | Y           | Vikram B |
| 106 | The Kashmir Files | 2020-04-03 | <null>      | <null>   |
+-----+-------------------+------------+-------------+----------+

6 rows in set
Time: 0.026s
MySQL root@(none):movie> select * from movie where certificate = 'Y' && id % 2 != 0;
+-----+----------+------------+-------------+----------+
| ID  | Title    | relesed    | certificate | director |
+-----+----------+------------+-------------+----------+
| 101 | Rocketry | <null>     | Y           | <null>   |
| 103 | 3 idiots | 2009-12-25 | Y           | R Hirani |
| 105 | Hacked   | 2020-02-07 | Y           | Vikram B |
+-----+----------+------------+-------------+----------+
3 rows in set
```



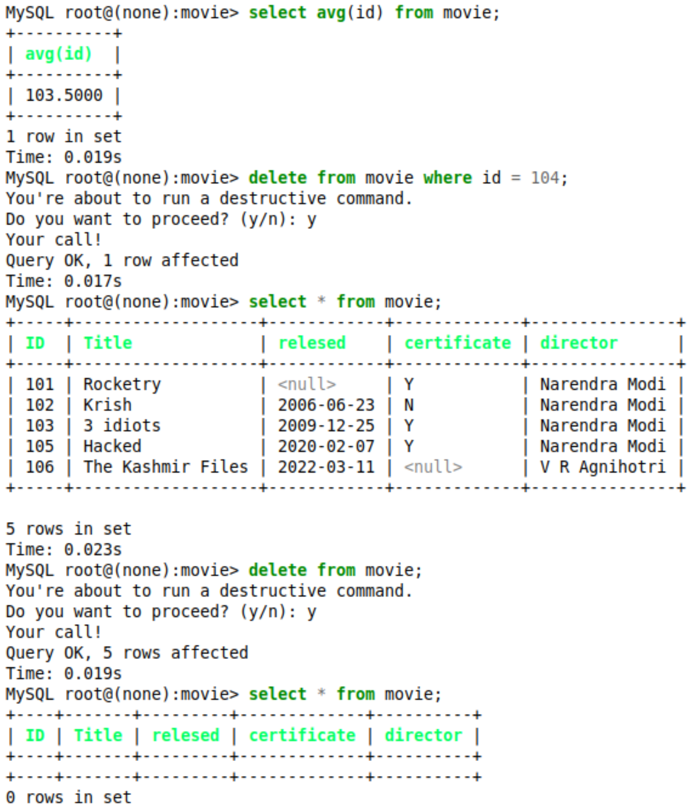
```
Time: 0.003s
MySQL root@(none):movie> update movie set director = "Narendra Modi" ;
You're about to run a destructive command.
Do you want to proceed? (y/n): y
Your call!
Query OK, 1 row affected
Time: 0.021s
MySQL root@(none):movie> select Title, director from movie;
+-------------------+---------------+
| Title             | director      |
+-------------------+---------------+
| Rocketry          | Narendra Modi |
| Krish             | Narendra Modi |
| 3 idiots          | Narendra Modi |
| KEE               | Narendra Modi |
| Hacked            | Narendra Modi |
| The Kashmir Files | Narendra Modi |
+-------------------+---------------+
6 rows in set
Time: 0.022s
MySQL root@(none):movie> update movie set director = "V R Agnihotri" where title = "The Kashmir Files";
Query OK, 1 row affected
Time: 0.020s
MySQL root@(none):movie> select Title, director from movie;
+-------------------+---------------+
| Title             | director      |
+-------------------+---------------+
| Rocketry          | Narendra Modi |
| Krish             | Narendra Modi |
| 3 idiots          | Narendra Modi |
| KEE               | Narendra Modi |
| Hacked            | Narendra Modi |
| The Kashmir Files | V R Agnihotri |
+-------------------+---------------+
6 rows in set
Time: 0.023s
MySQL root@(none):movie>
```



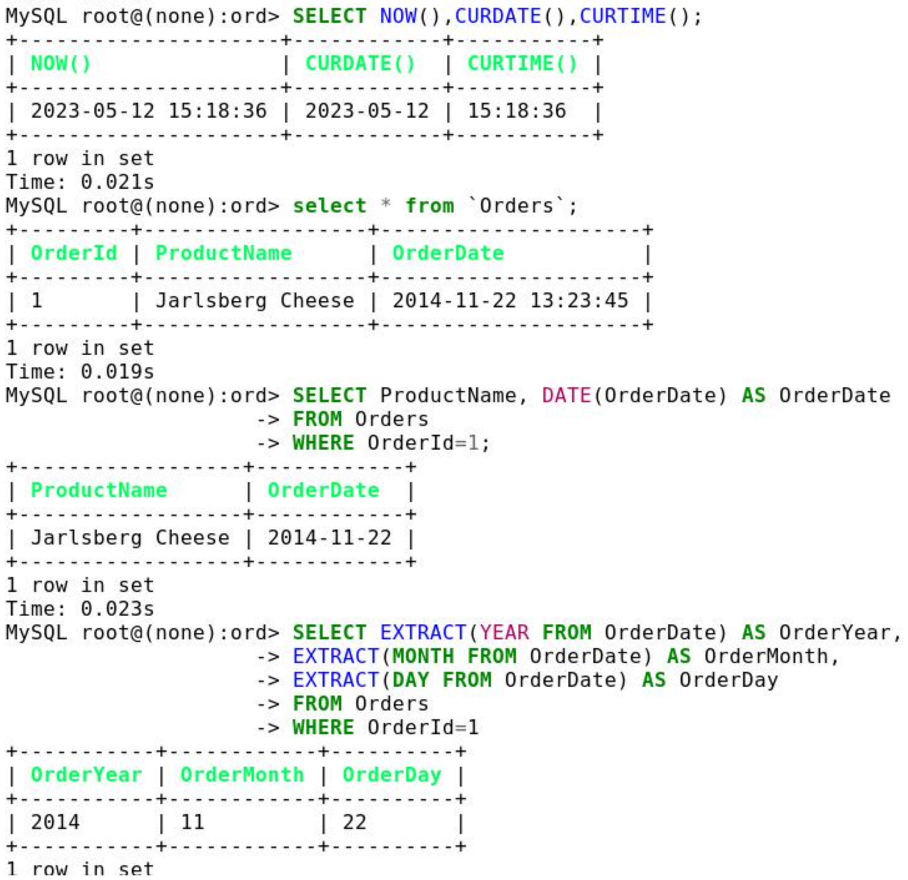
```
MySQL root@(none):movie> select ID,title, relesed from movie where Title like "%a%";
+-----+-------------------+------------+
| ID  | title             | relesed    |
+-----+-------------------+------------+
| 105 | Hacked            | 2020-02-07 |
| 106 | The Kashmir Files | 2022-03-11 |
+-----+-------------------+------------+
2 rows in set
Time: 0.021s
MySQL root@(none):movie> select ID,title, relesed from movie where Title like "_a%";
+-----+--------+------------+
| ID  | title  | relesed    |
+-----+--------+------------+
| 105 | Hacked | 2020-02-07 |
+-----+--------+------------+
1 row in set
Time: 0.025s
MySQL root@(none):movie> select ID,title, relesed from movie where Title like "k%";
+-----+-------+------------+
| ID  | title | relesed    |
+-----+-------+------------+
| 102 | Krish | 2006-06-23 |
| 104 | KEE   | 2019-05-10 |
+-----+-------+------------+
2 rows in set
Time: 0.025s
MySQL root@(none):movie> select ID,title, relesed from movie where `ID` between 101 and 103;
+-----+----------+------------+
| ID  | title    | relesed    |
+-----+----------+------------+
| 101 | Rocketry | <null>     |
| 102 | Krish    | 2006-06-23 |
| 103 | 3 idiots | 2009-12-25 |
+-----+----------+------------+
3 rows in set
```



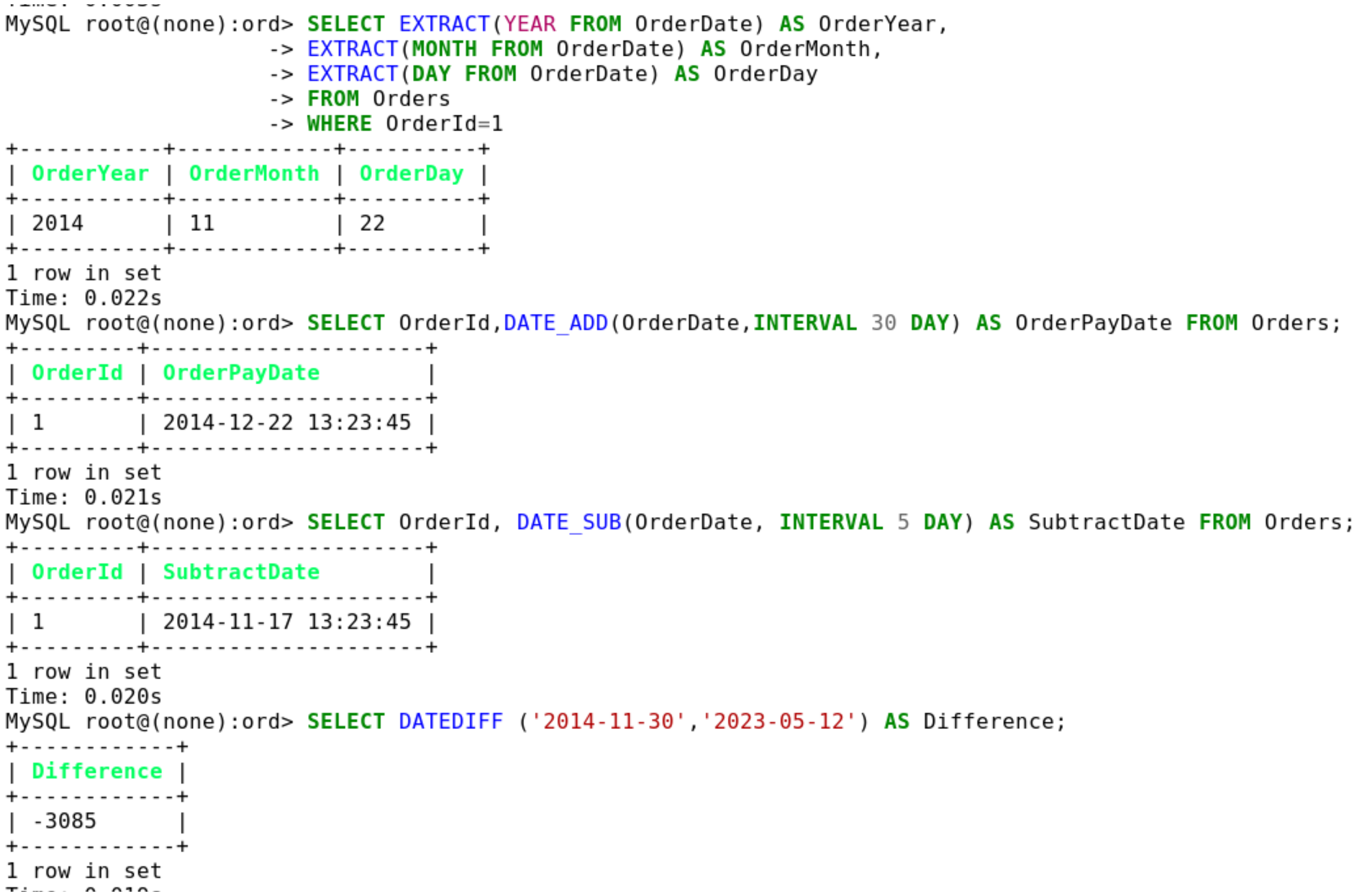
```
MySQL root@(none):movie> select min(id) from movie;
+---------+
| min(id) |
+---------+
| 101     |
+---------+
1 row in set
Time: 0.018s
MySQL root@(none):movie> select max(id) from movie;
+---------+
| max(id) |
+---------+
| 106     |
+---------+
1 row in set
Time: 0.019s
MySQL root@(none):movie> select count(*) from movie;
+----------+
| count(*) |
+----------+
| 6        |
+----------+
1 row in set
Time: 0.009s
MySQL root@(none):movie> select count(certificate) from movie;
+--------------------+
| count(certificate) |
+--------------------+
| 5                  |
+--------------------+
1 row in set
Time: 0.022s
MySQL root@(none):movie> select sum(id) from movie;
+---------+
| sum(id) |
+---------+
| 621     |
+---------+
1 row in set
```



```
MySQL root@(none):movie> select avg(id) from movie;
+----------+
| avg(id)  |
+----------+
| 103.5000 |
+----------+
1 row in set
Time: 0.019s
MySQL root@(none):movie> delete from movie where id = 104;
You're about to run a destructive command.
Do you want to proceed? (y/n): y
Your call!
Query OK, 1 row affected
Time: 0.017s
MySQL root@(none):movie> select * from movie;
+-----+-------------------+------------+-------------+--------------+
| ID  | Title             | relesed    | certificate | director     |
+-----+-------------------+------------+-------------+--------------+
| 101 | Rocketry          | <null>     | Y           | Narendra Modi |
| 102 | Krish             | 2006-06-23 | N           | Narendra Modi |
| 103 | 3 idiots          | 2009-12-25 | Y           | Narendra Modi |
| 105 | Hacked            | 2020-02-07 | Y           | Narendra Modi |
| 106 | The Kashmir Files | 2022-03-11 | <null>      | V R Agnihotri |
+-----+-------------------+------------+-------------+--------------+

5 rows in set
Time: 0.023s
MySQL root@(none):movie> delete from movie;
You're about to run a destructive command.
Do you want to proceed? (y/n): y
Your call!
Query OK, 5 rows affected
Time: 0.019s
MySQL root@(none):movie> select * from movie;
+----+-------+---------+-------------+----------+
| ID | Title | relesed | certificate | director |
+----+-------+---------+-------------+----------+
+----+-------+---------+-------------+----------+
0 rows in set
```

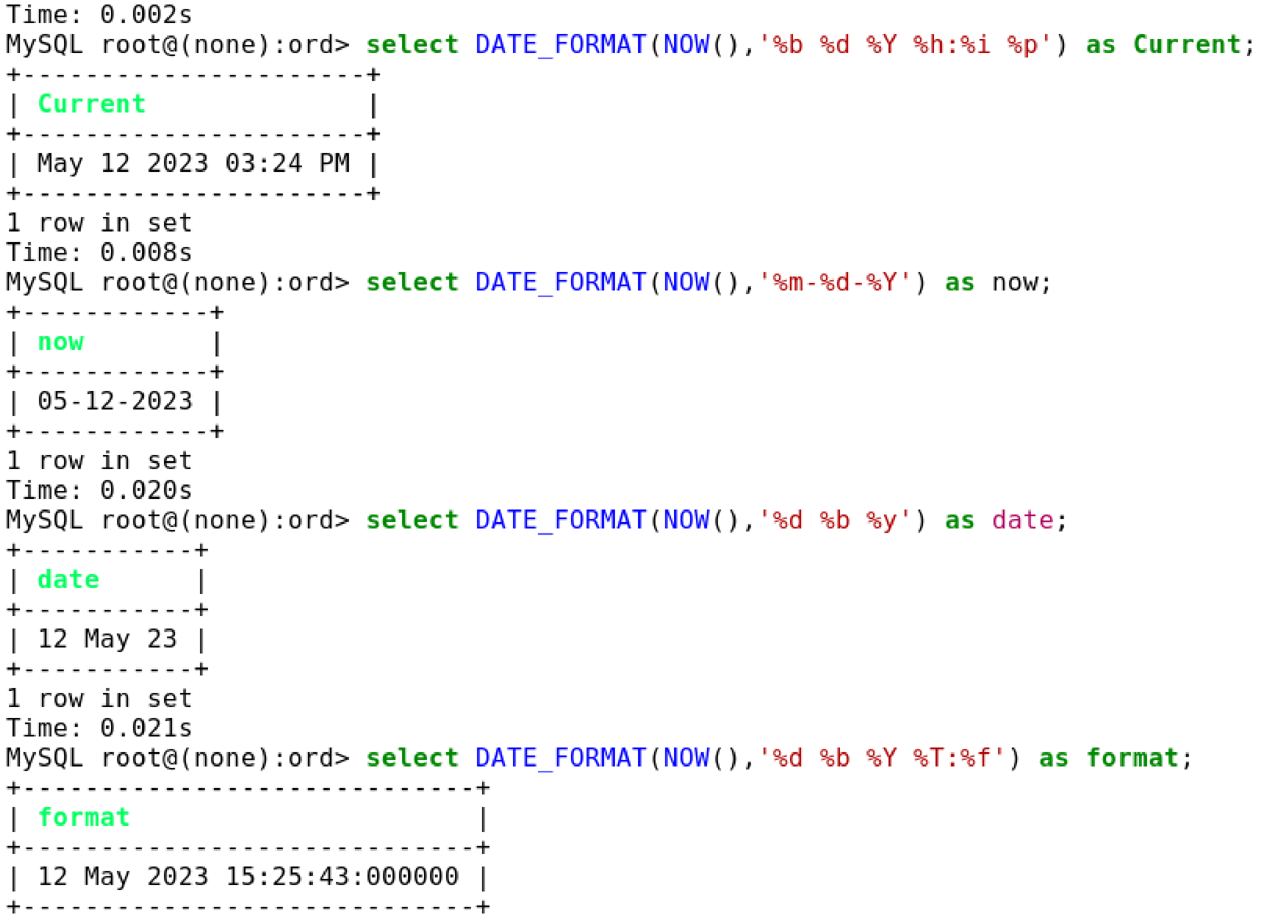


```
MySQL root@(none):ord> SELECT NOW(),CURDATE(),CURTIME();
+---------------------+------------+-----------+
| NOW()               | CURDATE()  | CURTIME() |
+---------------------+------------+-----------+
| 2023-05-12 15:18:36 | 2023-05-12 | 15:18:36  |
+---------------------+------------+-----------+
1 row in set
Time: 0.021s
MySQL root@(none):ord> select * from `Orders`;
+---------+------------------+---------------------+
| OrderId | ProductName      | OrderDate           |
+---------+------------------+---------------------+
| 1       | Jarlsberg Cheese | 2014-11-22 13:23:45 |
+---------+------------------+---------------------+
1 row in set
Time: 0.019s
MySQL root@(none):ord> SELECT ProductName, DATE(OrderDate) AS OrderDate
                    -> FROM Orders
                    -> WHERE OrderId=1;
+------------------+------------+
| ProductName      | OrderDate  |
+------------------+------------+
| Jarlsberg Cheese | 2014-11-22 |
+------------------+------------+
1 row in set
Time: 0.023s
MySQL root@(none):ord> SELECT EXTRACT(YEAR FROM OrderDate) AS OrderYear,
                    -> EXTRACT(MONTH FROM OrderDate) AS OrderMonth,
                    -> EXTRACT(DAY FROM OrderDate) AS OrderDay
                    -> FROM Orders
                    -> WHERE OrderId=1
+-----------+------------+----------+
| OrderYear | OrderMonth | OrderDay |
+-----------+------------+----------+
| 2014      | 11         | 22       |
+-----------+------------+----------+
1 row in set
```

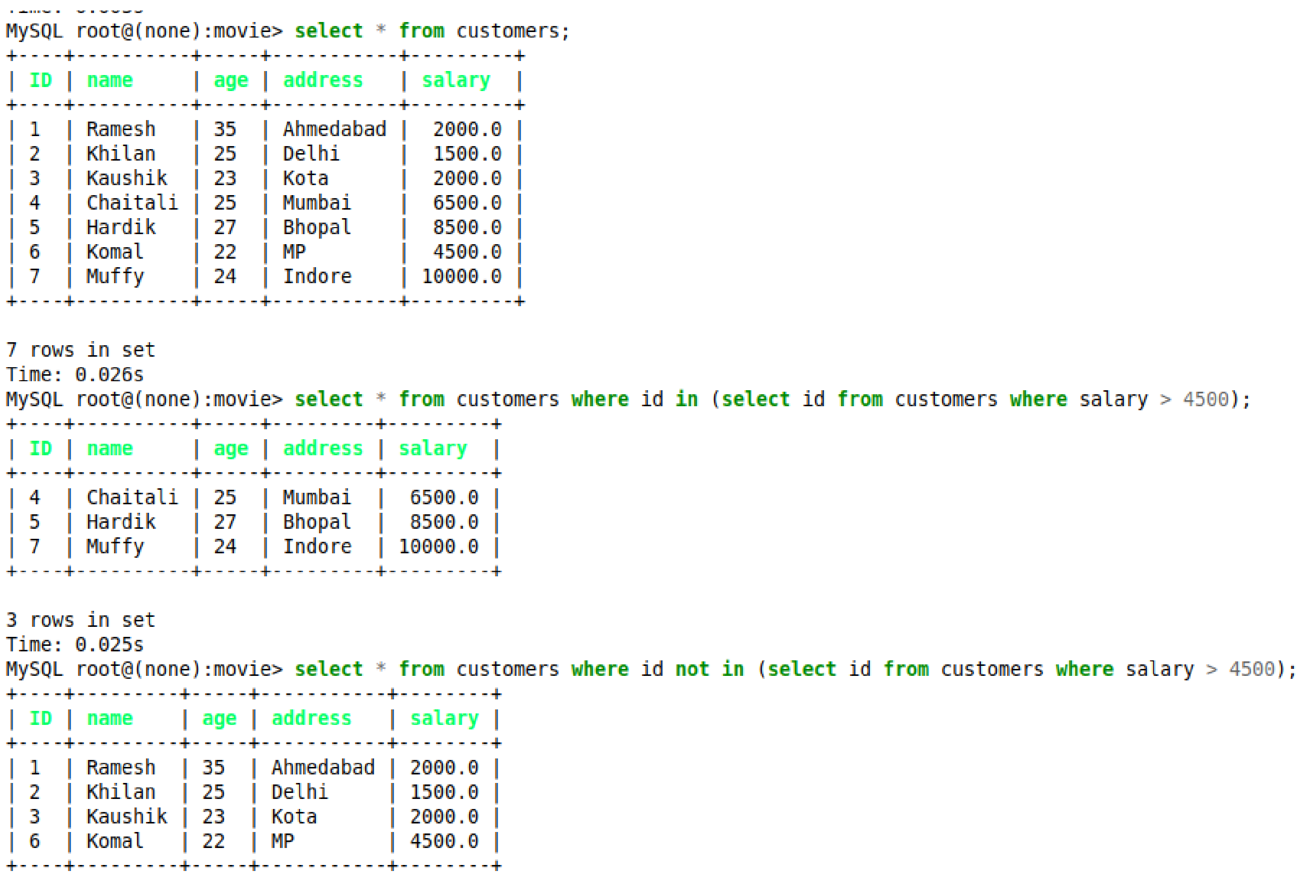


```
MySQL root@(none):ord> SELECT EXTRACT(YEAR FROM OrderDate) AS OrderYear,
                    -> EXTRACT(MONTH FROM OrderDate) AS OrderMonth,
                    -> EXTRACT(DAY FROM OrderDate) AS OrderDay
                    -> FROM Orders
                    -> WHERE OrderId=1
+-----------+------------+----------+
| OrderYear | OrderMonth | OrderDay |
+-----------+------------+----------+
| 2014      | 11         | 22       |
+-----------+------------+----------+
1 row in set
```

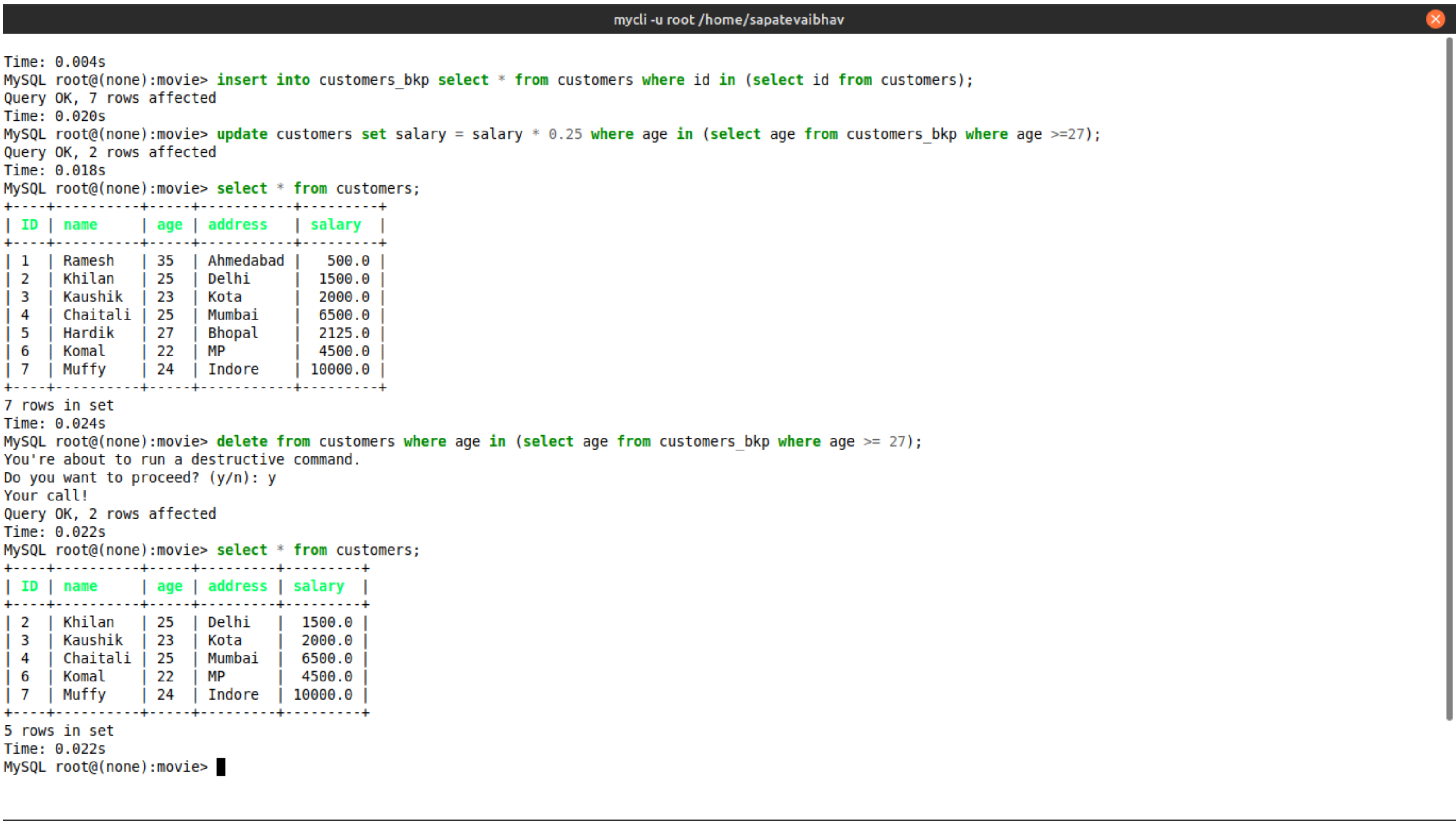
```
Time: 0.022s
MySQL root@(none):ord> SELECT OrderId,DATE_ADD(OrderDate,INTERVAL 30 DAY) AS OrderPayDate FROM Orders;
+---------+---------------------+
| OrderId | OrderPayDate        |
+---------+---------------------+
| 1       | 2014-12-22 13:23:45 |
+---------+---------------------+
1 row in set
Time: 0.021s
MySQL root@(none):ord> SELECT OrderId, DATE_SUB(OrderDate, INTERVAL 5 DAY) AS SubtractDate FROM Orders;
+---------+---------------------+
| OrderId | SubtractDate        |
+---------+---------------------+
| 1       | 2014-11-17 13:23:45 |
+---------+---------------------+
1 row in set
Time: 0.020s
MySQL root@(none):ord> SELECT DATEDIFF ('2014-11-30','2023-05-12') AS Difference;
+------------+
| Difference |
+------------+
| -3085      |
+------------+
1 row in set
Time: 0.019s
```



```
Time: 0.002s
MySQL root@(none):ord> select DATE_FORMAT(NOW(),'%b %d %Y %h:%i %p') as Current;
+----------------------+
| Current              |
+----------------------+
| May 12 2023 03:24 PM |
+----------------------+
1 row in set
Time: 0.008s
MySQL root@(none):ord> select DATE_FORMAT(NOW(),'%m-%d-%Y') as now;
+------------+
| now        |
+------------+
| 05-12-2023 |
+------------+
1 row in set
Time: 0.020s
MySQL root@(none):ord> select DATE_FORMAT(NOW(),'%d %b %y') as date;
+-----------+
| date      |
+-----------+
| 12 May 23 |
+-----------+
1 row in set
Time: 0.021s
MySQL root@(none):ord> select DATE_FORMAT(NOW(),'%d %b %Y %T:%f') as format;
+-----------------------------+
| format                      |
+-----------------------------+
| 12 May 2023 15:25:43:000000 |
+-----------------------------+
```

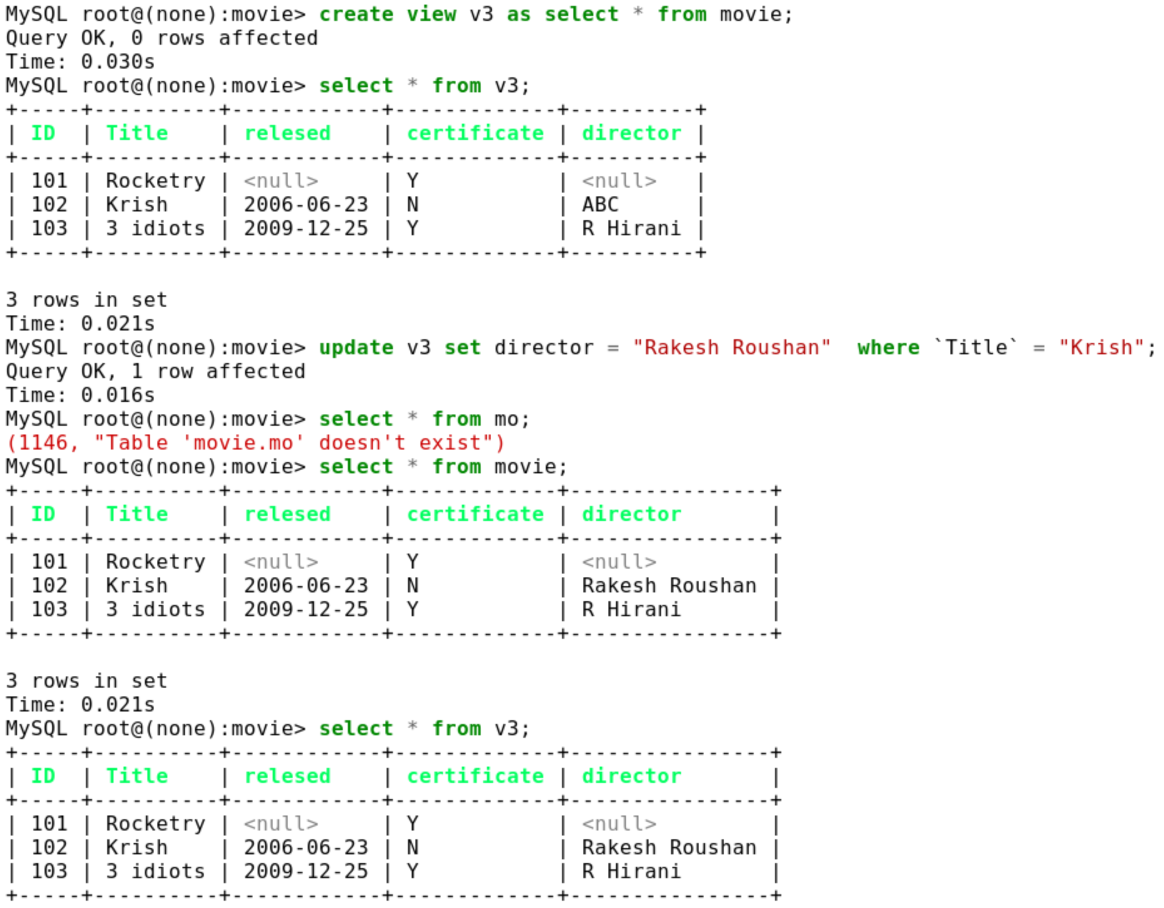


```
MySQL root@(none):movie> select * from customers;
+----+----------+-----+-----------+---------+
| ID | name     | age | address   | salary  |
+----+----------+-----+-----------+---------+
| 1  | Ramesh   | 35  | Ahmedabad |  2000.0 |
| 2  | Khilan   | 25  | Delhi     |  1500.0 |
| 3  | Kaushik  | 23  | Kota      |  2000.0 |
| 4  | Chaitali | 25  | Mumbai    |  6500.0 |
| 5  | Hardik   | 27  | Bhopal    |  8500.0 |
| 6  | Komal    | 22  | MP        |  4500.0 |
| 7  | Muffy    | 24  | Indore    | 10000.0 |
+----+----------+-----+-----------+---------+

7 rows in set
Time: 0.026s
MySQL root@(none):movie> select * from customers where id in (select id from customers where salary > 4500);
+----+----------+-----+---------+---------+
| ID | name     | age | address | salary  |
+----+----------+-----+---------+---------+
| 4  | Chaitali | 25  | Mumbai  |  6500.0 |
| 5  | Hardik   | 27  | Bhopal  |  8500.0 |
| 7  | Muffy    | 24  | Indore  | 10000.0 |
+----+----------+-----+---------+---------+

3 rows in set
Time: 0.025s
MySQL root@(none):movie> select * from customers where id not in (select id from customers where salary > 4500);
+----+---------+-----+-----------+--------+
| ID | name    | age | address   | salary |
+----+---------+-----+-----------+--------+
| 1  | Ramesh  | 35  | Ahmedabad | 2000.0 |
| 2  | Khilan  | 25  | Delhi     | 1500.0 |
| 3  | Kaushik | 23  | Kota      | 2000.0 |
| 6  | Komal   | 22  | MP        | 4500.0 |
+----+---------+-----+-----------+--------+
```

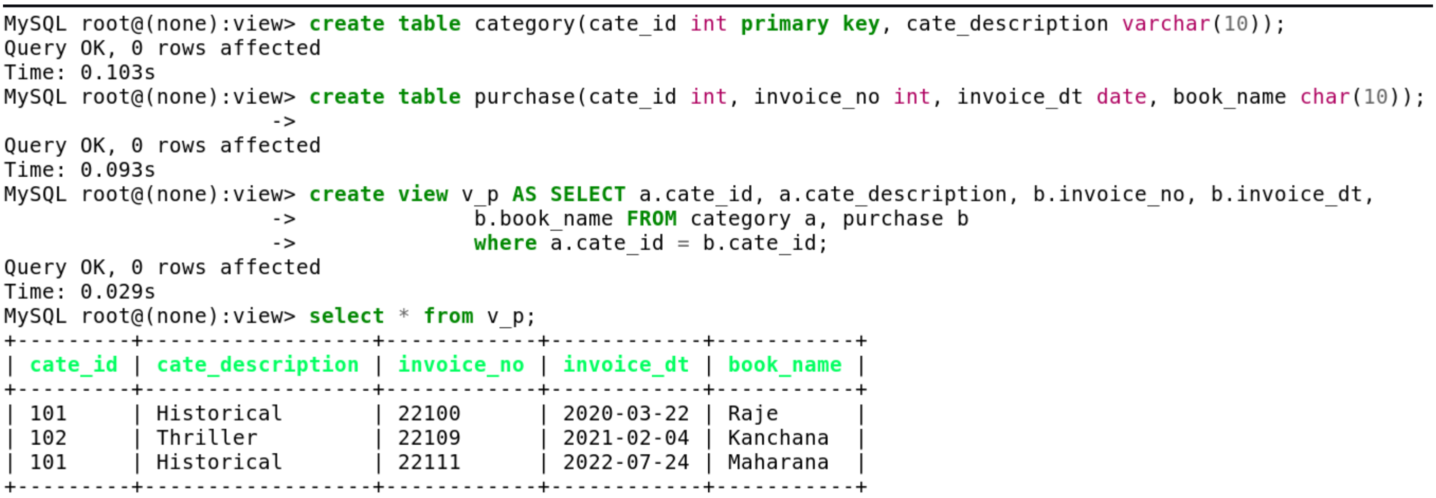


```
Time: 0.004s
MySQL root@(none):movie> insert into customers_bkp select * from customers where id in (select id from customers);
Query OK, 7 rows affected
Time: 0.020s
MySQL root@(none):movie> update customers set salary = salary * 0.25 where age in (select age from customers_bkp where age >=27);
Query OK, 2 rows affected
Time: 0.018s
MySQL root@(none):movie> select * from customers;
+----+----------+-----+-----------+---------+
| ID | name     | age | address   | salary  |
+----+----------+-----+-----------+---------+
| 1  | Ramesh   | 35  | Ahmedabad |   500.0 |
| 2  | Khilan   | 25  | Delhi     |  1500.0 |
| 3  | Kaushik  | 23  | Kota      |  2000.0 |
| 4  | Chaitali | 25  | Mumbai    |  6500.0 |
| 5  | Hardik   | 27  | Bhopal    |  2125.0 |
| 6  | Komal    | 22  | MP        |  4500.0 |
| 7  | Muffy    | 24  | Indore    | 10000.0 |
+----+----------+-----+-----------+---------+
7 rows in set
Time: 0.024s
MySQL root@(none):movie> delete from customers where age in (select age from customers_bkp where age >= 27);
You're about to run a destructive command.
Do you want to proceed? (y/n): y
Your call!
Query OK, 2 rows affected
Time: 0.022s
MySQL root@(none):movie> select * from customers;
+----+----------+-----+---------+---------+
| ID | name     | age | address | salary  |
+----+----------+-----+---------+---------+
| 2  | Khilan   | 25  | Delhi   |  1500.0 |
| 3  | Kaushik  | 23  | Kota    |  2000.0 |
| 4  | Chaitali | 25  | Mumbai  |  6500.0 |
| 6  | Komal    | 22  | MP      |  4500.0 |
| 7  | Muffy    | 24  | Indore  | 10000.0 |
+----+----------+-----+---------+---------+
5 rows in set
Time: 0.022s
MySQL root@(none):movie>
```

Experiment no. 8



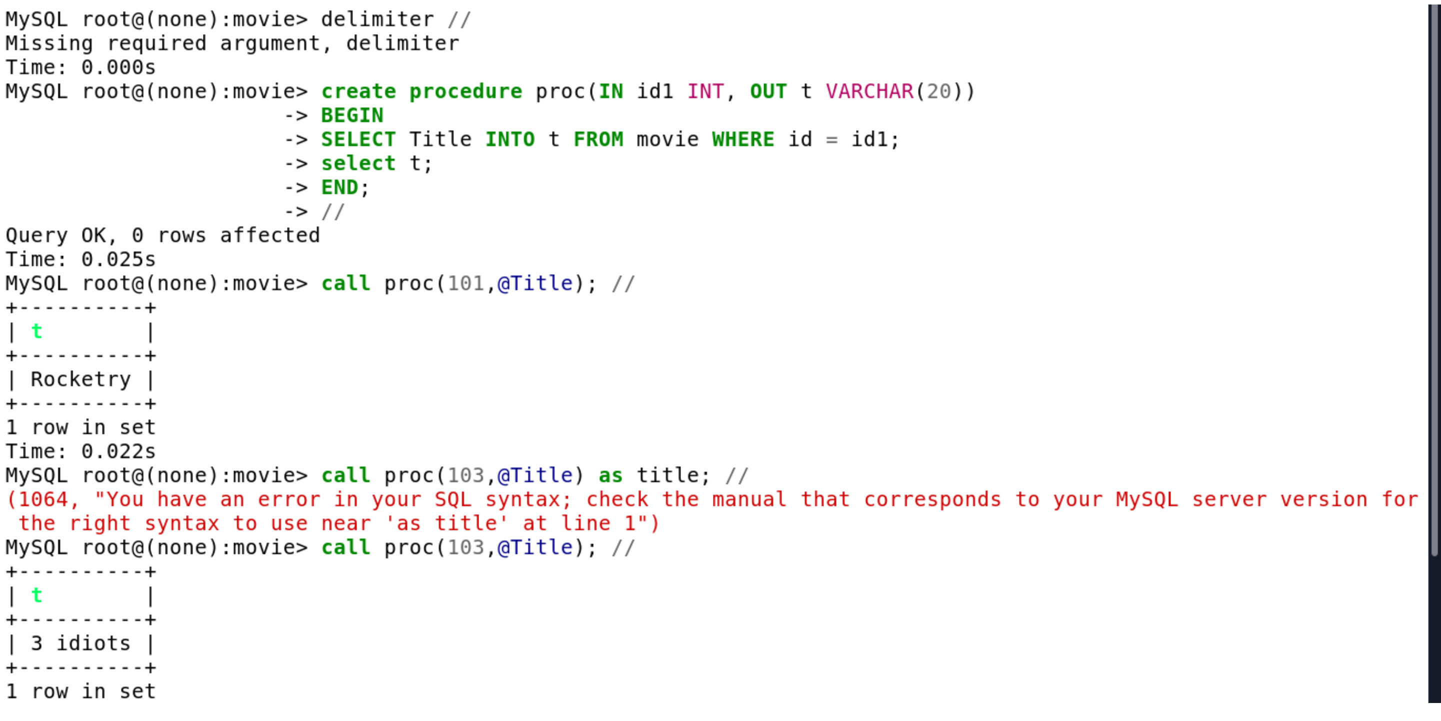
```
MySQL root@(none):movie> create view v3 as select * from movie;
Query OK, 0 rows affected
Time: 0.030s
MySQL root@(none):movie> select * from v3;
+-----+----------+------------+-------------+----------+
| ID  | Title    | relesed    | certificate | director |
+-----+----------+------------+-------------+----------+
| 101 | Rocketry | <null>     | Y           | <null>   |
| 102 | Krish    | 2006-06-23 | N           | ABC      |
| 103 | 3 idiots | 2009-12-25 | Y           | R Hirani |
+-----+----------+------------+-------------+----------+

3 rows in set
Time: 0.021s
MySQL root@(none):movie> update v3 set director = "Rakesh Roushan"  where `Title` = "Krish";
Query OK, 1 row affected
Time: 0.016s
MySQL root@(none):movie> select * from mo;
(1146, "Table 'movie.mo' doesn't exist")
MySQL root@(none):movie> select * from movie;
+-----+----------+------------+-------------+----------------+
| ID  | Title    | relesed    | certificate | director       |
+-----+----------+------------+-------------+----------------+
| 101 | Rocketry | <null>     | Y           | <null>         |
| 102 | Krish    | 2006-06-23 | N           | Rakesh Roushan |
| 103 | 3 idiots | 2009-12-25 | Y           | R Hirani       |
+-----+----------+------------+-------------+----------------+

3 rows in set
Time: 0.021s
MySQL root@(none):movie> select * from v3;
+-----+----------+------------+-------------+----------------+
| ID  | Title    | relesed    | certificate | director       |
+-----+----------+------------+-------------+----------------+
| 101 | Rocketry | <null>     | Y           | <null>         |
| 102 | Krish    | 2006-06-23 | N           | Rakesh Roushan |
| 103 | 3 idiots | 2009-12-25 | Y           | R Hirani       |
+-----+----------+------------+-------------+----------------+
```



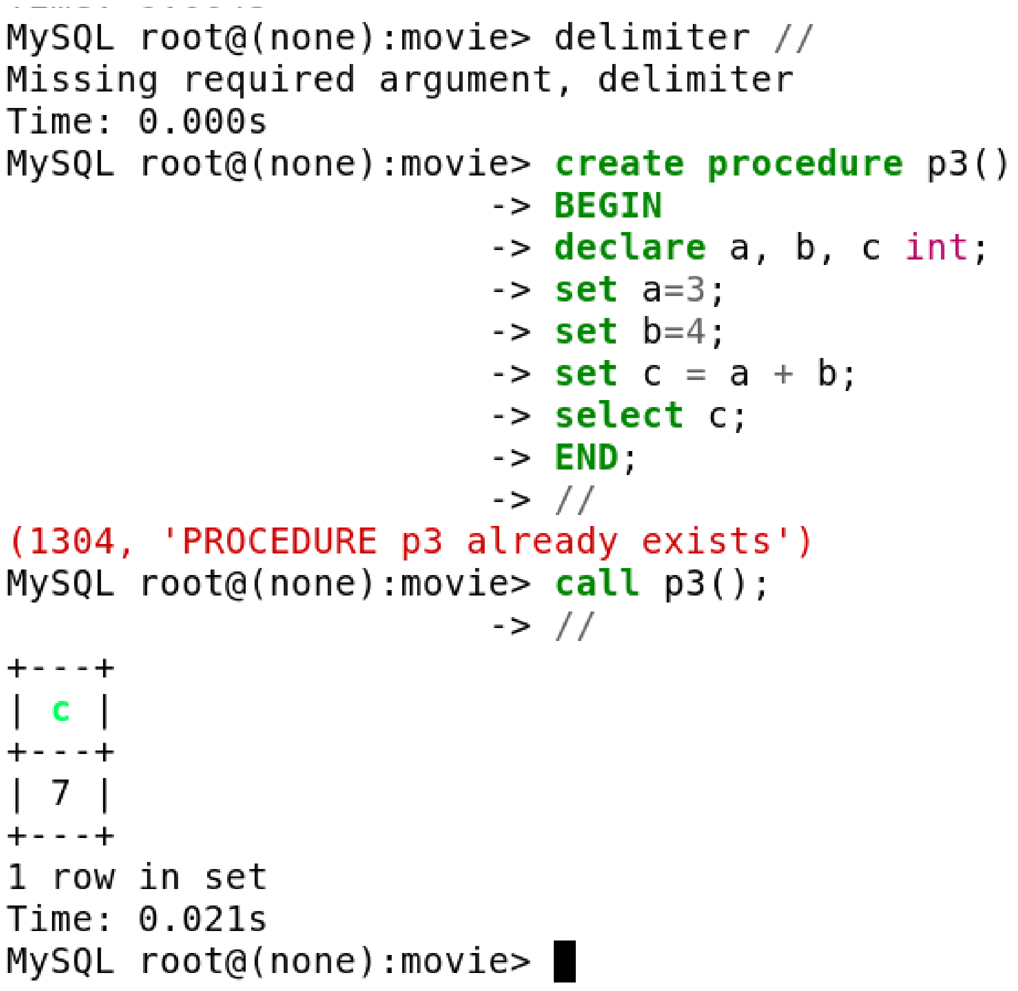
```
MySQL root@(none):view> create table category(cate_id int primary key, cate_description varchar(10));
Query OK, 0 rows affected
Time: 0.103s
MySQL root@(none):view> create table purchase(cate_id int, invoice_no int, invoice_dt date, book_name char(10));
                     ->
Query OK, 0 rows affected
Time: 0.093s
MySQL root@(none):view> create view v_p AS SELECT a.cate_id, a.cate_description, b.invoice_no, b.invoice_dt,
                     ->             b.book_name FROM category a, purchase b
                     ->             where a.cate_id = b.cate_id;
Query OK, 0 rows affected
Time: 0.029s
MySQL root@(none):view> select * from v_p;
+---------+------------------+------------+------------+-----------+
| cate_id | cate_description | invoice_no | invoice_dt | book_name |
+---------+------------------+------------+------------+-----------+
| 101     | Historical       | 22100      | 2020-03-22 | Raje      |
| 102     | Thriller         | 22109      | 2021-02-04 | Kanchana  |
| 101     | Historical       | 22111      | 2022-07-24 | Maharana  |
+---------+------------------+------------+------------+-----------+
MySQL root@(none):view> create table author(id int, name varchar(20), age tinyint);
Query OK, 0 rows affected
Time: 0.094s
MySQL root@(none):view> select * from author;
+-----+------------------+-----+
| id  | name             | age |
+-----+------------------+-----+
| 101 | Tarak Mehata     | 89  |
| 102 | Kusumagraj       | 67  |
| 103 | V. D. Savarkar   | 60  |
| 104 | V. V. Shirvadkar | 75  |
+-----+------------------+-----+
4 rows in set
Time: 0.020s
MySQL root@(none):view> CREATE VIEW view_author AS SELECT *
                     -> FROM author WHERE name
                     -> NOT LIKE 'T%' AND name NOT LIKE 'W%';
Query OK, 0 rows affected
Time: 0.030s
MySQL root@(none):view> select * from view_author;
+-----+------------------+-----+
| id  | name             | age |
+-----+------------------+-----+
| 102 | Kusumagraj       | 67  |
| 103 | V. D. Savarkar   | 60  |
| 104 | V. V. Shirvadkar | 75  |
+-----+------------------+-----+
3 rows in set
```

```
MySQL root@(none):view> alter table category add column no_page int;
You're about to run a destructive command.
Do you want to proceed? (y/n): y
Your call!
Query OK, 0 rows affected
Time: 0.067s
MySQL root@(none):view> CREATE VIEW view_purchase
                     -> AS SELECT invoice_no,book_name,cate_id
                     -> FROM purchase
                     -> WHERE cate_id= (SELECT cate_id FROM category WHERE no_page=201);
Query OK, 0 rows affected
Time: 0.026s
MySQL root@(none):view> select * from view_purchase;
+------------+-----------+---------+
| invoice_no | book_name | cate_id |
+------------+-----------+---------+
| 22100      | Raje      | 101     |
| 22111      | Maharana  | 101     |
+------------+-----------+---------+
2 rows in set
Time: 0.022s
MySQL root@(none):view> select * from category;
+---------+------------------+---------+
| cate_id | cate_description | no_page |
+---------+------------------+---------+
| 101     | Historical       | 201     |
| 102     | Thriller         | 228     |
| 103     | political        | 228     |
+---------+------------------+---------+
3 rows in set
```

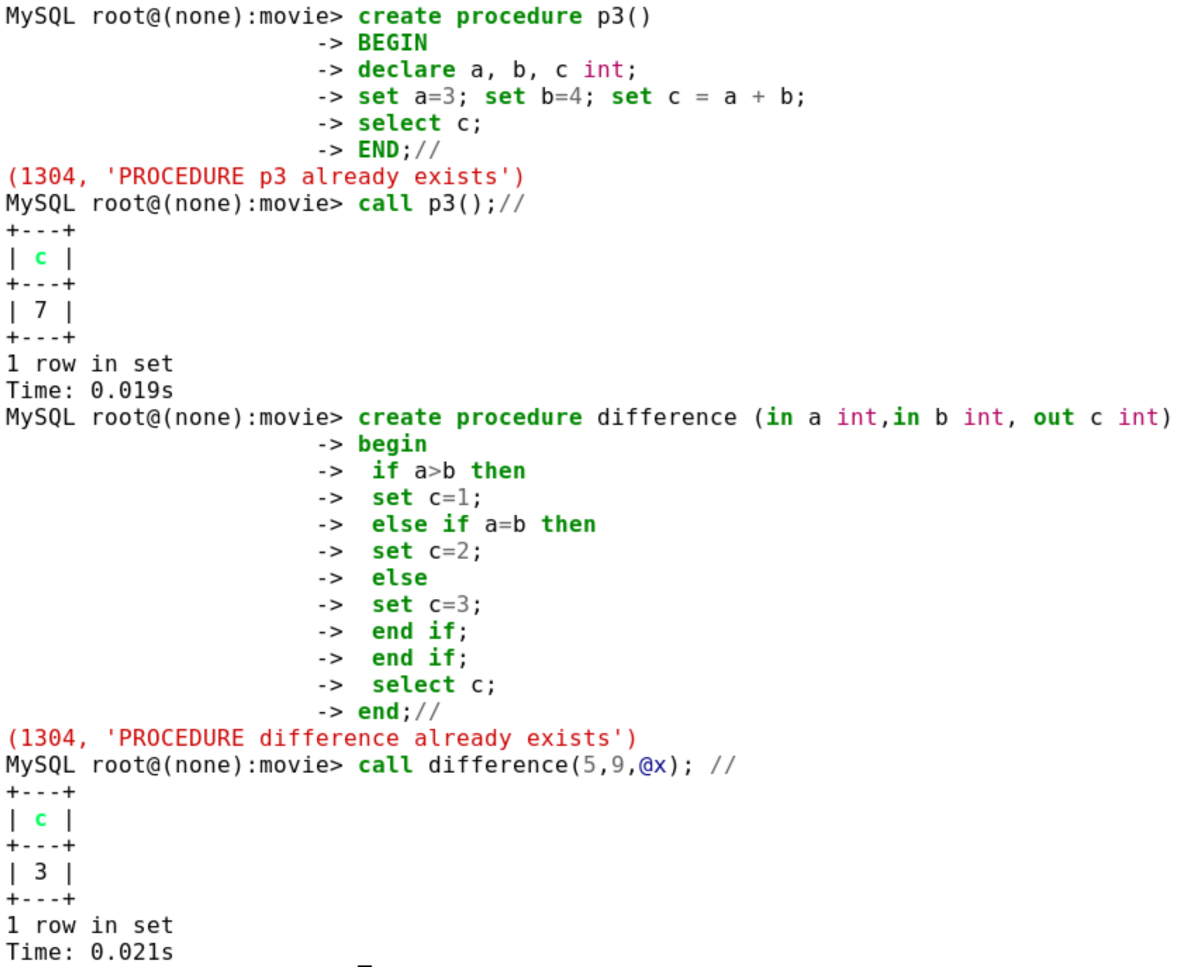
Experiment No: 9



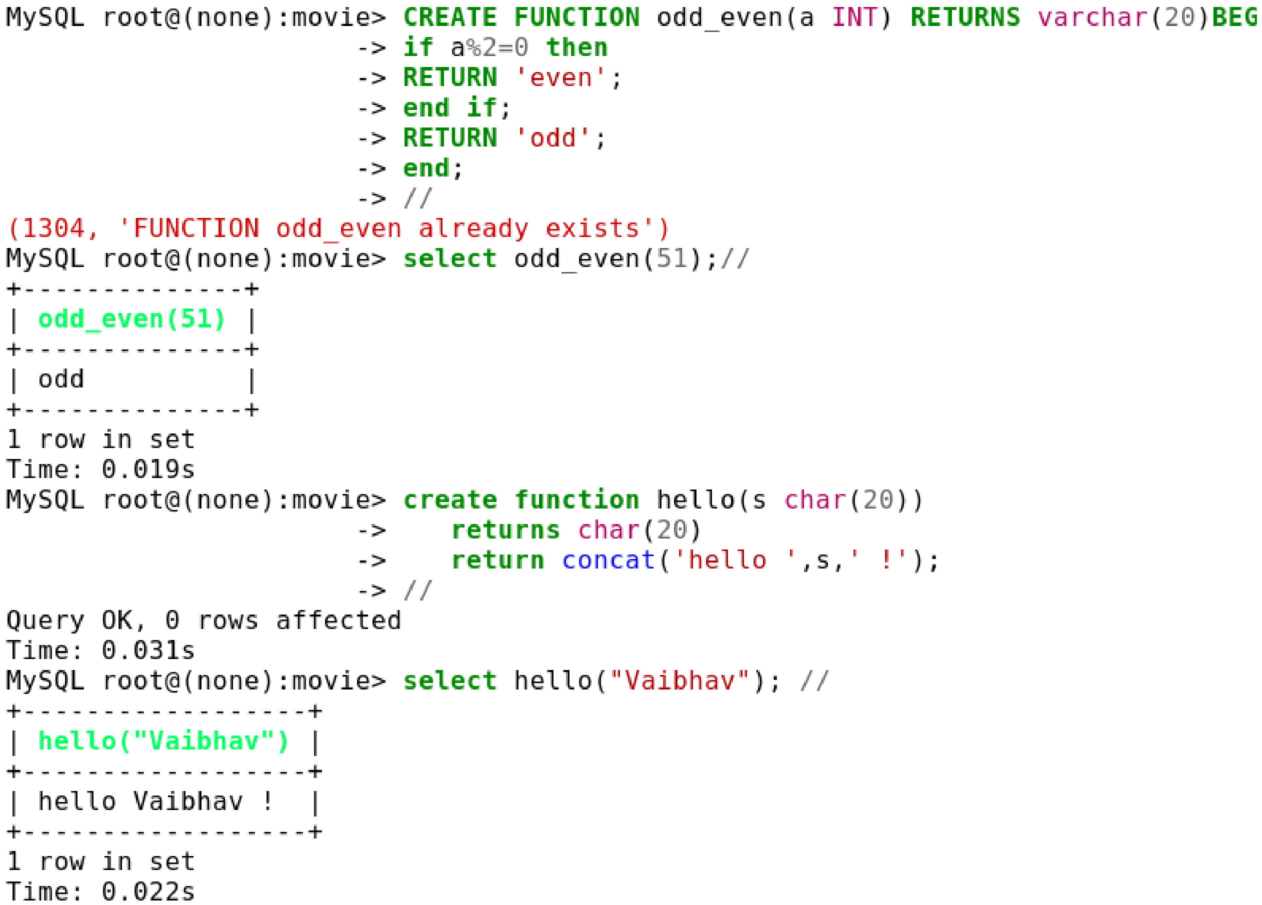
```
MySQL root@(none):movie> delimiter //
Missing required argument, delimiter
Time: 0.000s
MySQL root@(none):movie> create procedure proc(IN id1 INT, OUT t VARCHAR(20))
                      -> BEGIN
                      -> SELECT Title INTO t FROM movie WHERE id = id1;
                      -> select t;
                      -> END;
                      -> //
Query OK, 0 rows affected
Time: 0.025s
MySQL root@(none):movie> call proc(101,@Title); //
+----------+
| t        |
+----------+
| Rocketry |
+----------+
1 row in set
Time: 0.022s
MySQL root@(none):movie> call proc(103,@Title) as title; //
(1064, "You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for
 the right syntax to use near 'as title' at line 1")
MySQL root@(none):movie> call proc(103,@Title); //
+----------+
| t        |
+----------+
| 3 idiots |
+----------+
1 row in set
```



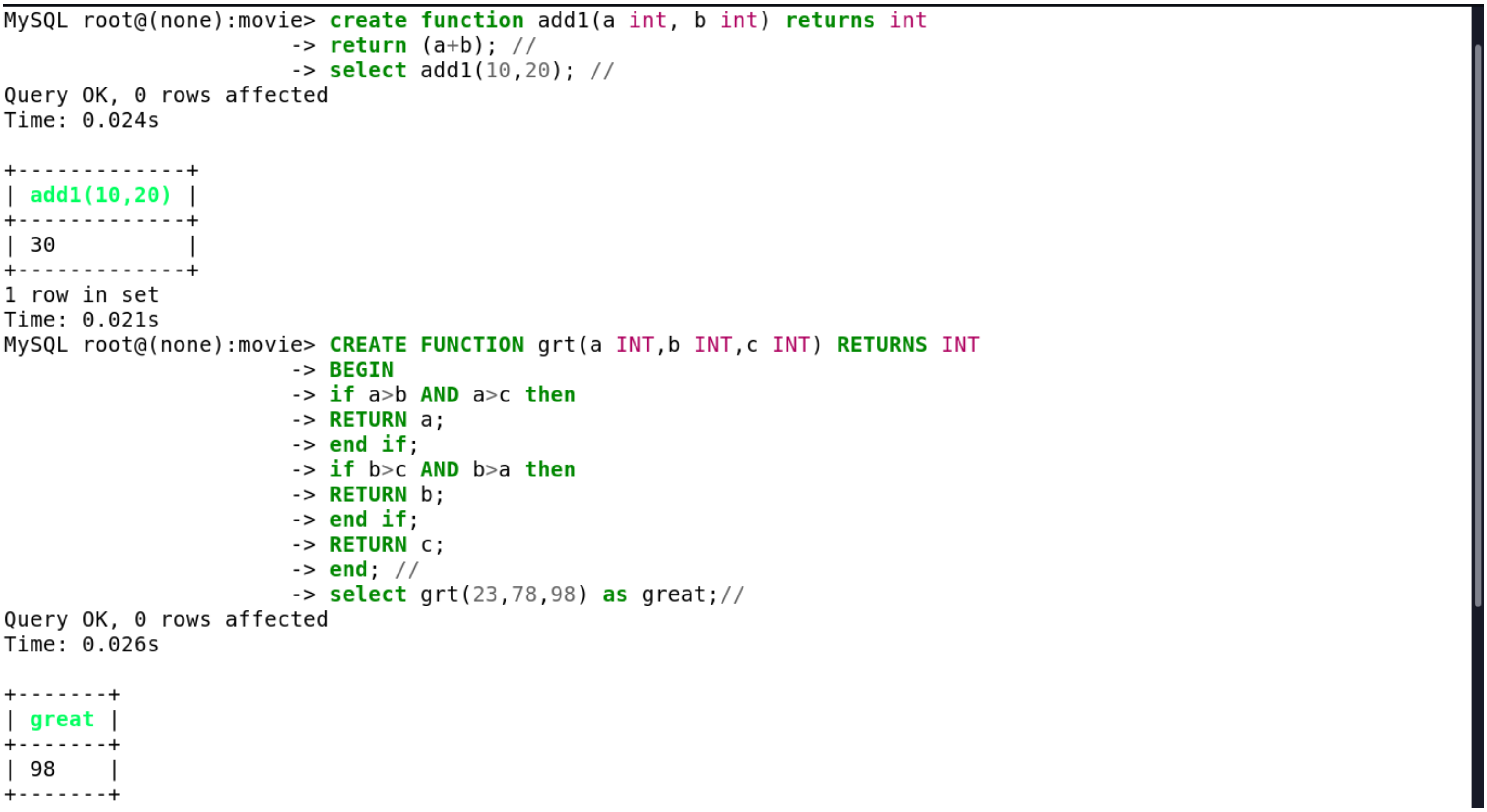
```
MySQL root@(none):movie> delimiter //
Missing required argument, delimiter
Time: 0.000s
MySQL root@(none):movie> create procedure p3()
                      -> BEGIN
                      -> declare a, b, c int;
                      -> set a=3;
                      -> set b=4;
                      -> set c = a + b;
                      -> select c;
                      -> END;
                      -> //
(1304, 'PROCEDURE p3 already exists')
MySQL root@(none):movie> call p3();
                      -> //
+---+
| c |
+---+
| 7 |
+---+
1 row in set
Time: 0.021s
MySQL root@(none):movie>
```



```
MySQL root@(none):movie> create procedure p3()
                      -> BEGIN
                      -> declare a, b, c int;
                      -> set a=3; set b=4; set c = a + b;
                      -> select c;
                      -> END;//
(1304, 'PROCEDURE p3 already exists')
MySQL root@(none):movie> call p3();//
+---+
| c |
+---+
| 7 |
+---+
1 row in set
Time: 0.019s
MySQL root@(none):movie> create procedure difference (in a int,in b int, out c int)
                      -> begin
                      ->  if a>b then
                      ->  set c=1;
                      ->  else if a=b then
                      ->  set c=2;
                      ->  else
                      ->  set c=3;
                      ->  end if;
                      ->  end if;
                      ->  select c;
                      -> end;//
(1304, 'PROCEDURE difference already exists')
MySQL root@(none):movie> call difference(5,9,@x); //
+---+
| c |
+---+
| 3 |
+---+
1 row in set
Time: 0.021s
                      _
```

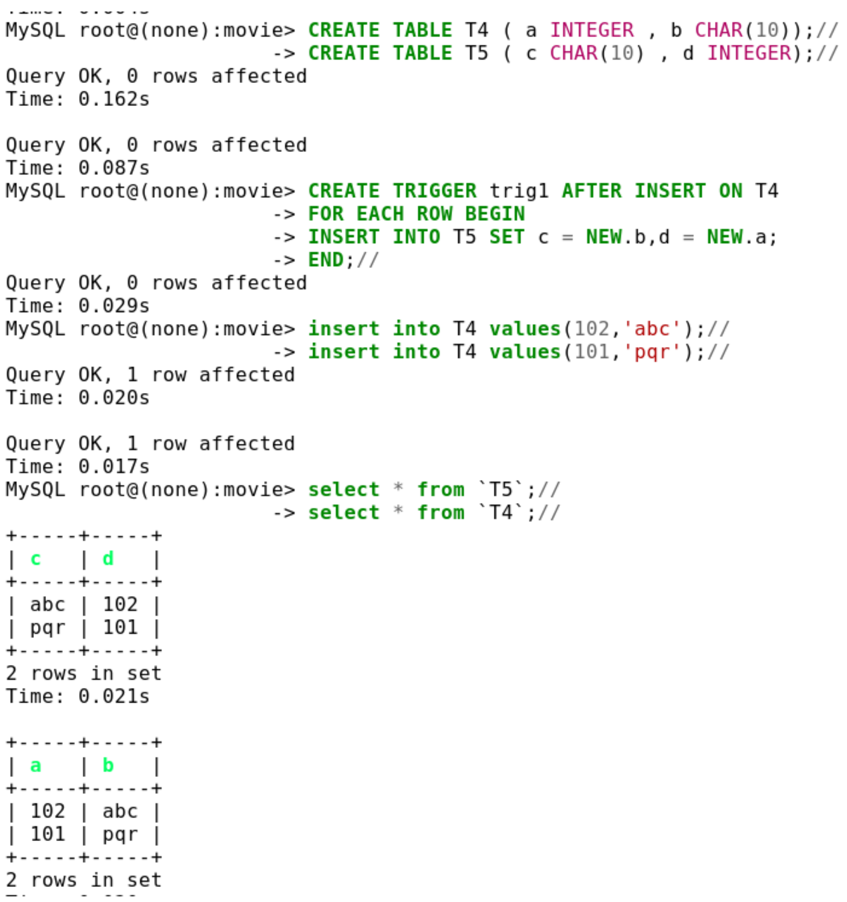


```
MySQL root@(none):movie> CREATE FUNCTION odd_even(a INT) RETURNS varchar(20)BEG
                      -> if a%2=0 then
                      -> RETURN 'even';
                      -> end if;
                      -> RETURN 'odd';
                      -> end;
                      -> //
(1304, 'FUNCTION odd_even already exists')
MySQL root@(none):movie> select odd_even(51);//
+--------------+
| odd_even(51) |
+--------------+
| odd          |
+--------------+
1 row in set
Time: 0.019s
MySQL root@(none):movie> create function hello(s char(20))
                      ->    returns char(20)
                      ->    return concat('hello ',s,' !');
                      -> //
Query OK, 0 rows affected
Time: 0.031s
MySQL root@(none):movie> select hello("Vaibhav"); //
+------------------+
| hello("Vaibhav") |
+------------------+
| hello Vaibhav !  |
+------------------+
1 row in set
Time: 0.022s
```

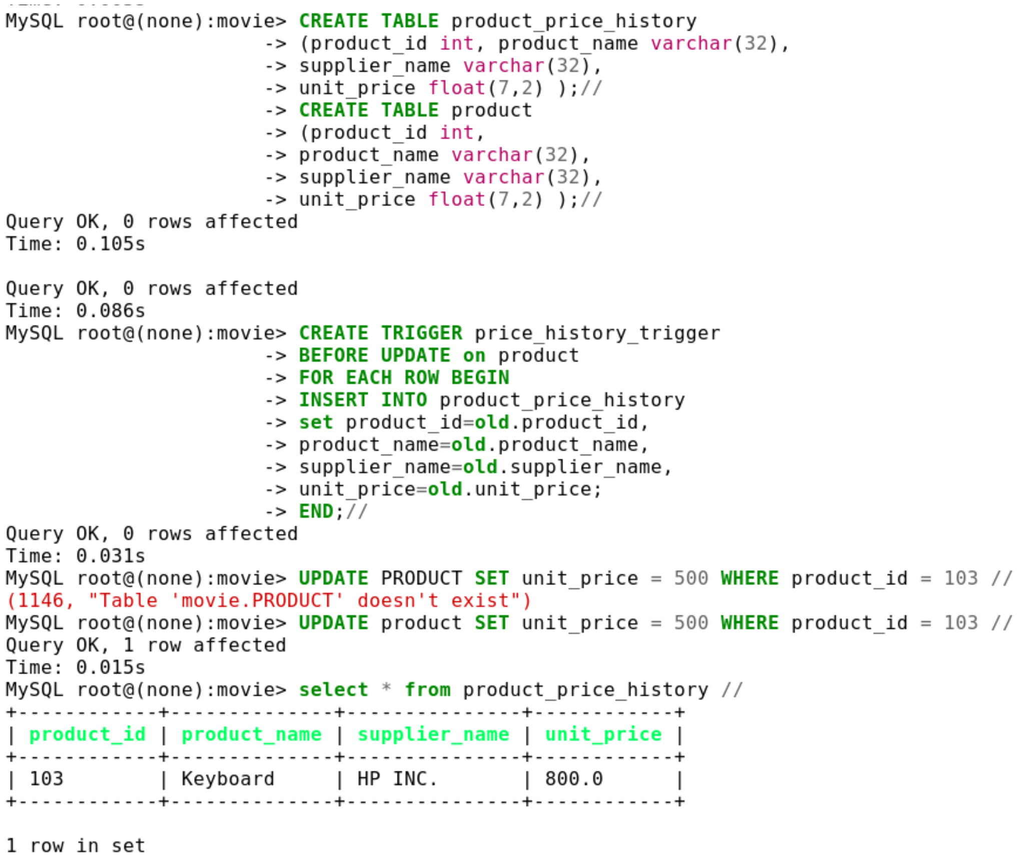


```
MySQL root@(none):movie> create function add1(a int, b int) returns int
                      -> return (a+b); //
                      -> select add1(10,20); //
Query OK, 0 rows affected
Time: 0.024s

+-------------+
| add1(10,20) |
+-------------+
| 30          |
+-------------+
1 row in set
Time: 0.021s
MySQL root@(none):movie> CREATE FUNCTION grt(a INT,b INT,c INT) RETURNS INT
                      -> BEGIN
                      -> if a>b AND a>c then
                      -> RETURN a;
                      -> end if;
                      -> if b>c AND b>a then
                      -> RETURN b;
                      -> end if;
                      -> RETURN c;
                      -> end; //
                      -> select grt(23,78,98) as great;//
Query OK, 0 rows affected
Time: 0.026s

+-------+
| great |
+-------+
| 98    |
+-------+
```

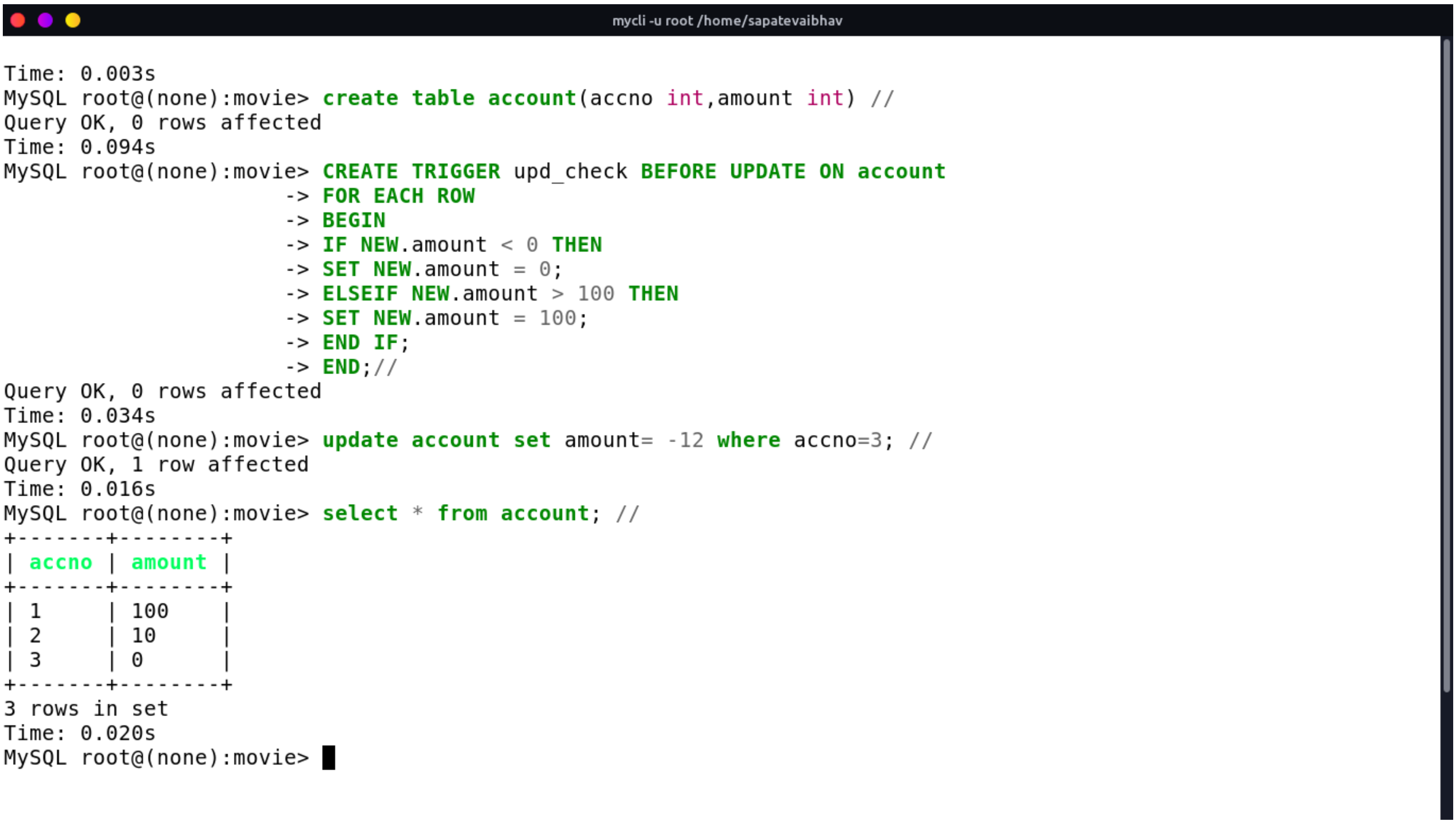
Experiment No: 10



```
MySQL root@(none):movie> CREATE TABLE T4 ( a INTEGER , b CHAR(10));//
                      -> CREATE TABLE T5 ( c CHAR(10) , d INTEGER);//
Query OK, 0 rows affected
Time: 0.162s

Query OK, 0 rows affected
Time: 0.087s
MySQL root@(none):movie> CREATE TRIGGER trig1 AFTER INSERT ON T4
                      -> FOR EACH ROW BEGIN
                      -> INSERT INTO T5 SET c = NEW.b,d = NEW.a;
                      -> END;//
Query OK, 0 rows affected
Time: 0.029s
MySQL root@(none):movie> insert into T4 values(102,'abc');//
                      -> insert into T4 values(101,'pqr');//
Query OK, 1 row affected
Time: 0.020s

Query OK, 1 row affected
Time: 0.017s
MySQL root@(none):movie> select * from `T5`;//
                      -> select * from `T4`;//
+-----+-----+
| c   | d   |
+-----+-----+
| abc | 102 |
| pqr | 101 |
+-----+-----+
2 rows in set
Time: 0.021s

+-----+-----+
| a   | b   |
+-----+-----+
| 102 | abc |
| 101 | pqr |
+-----+-----+
2 rows in set
```

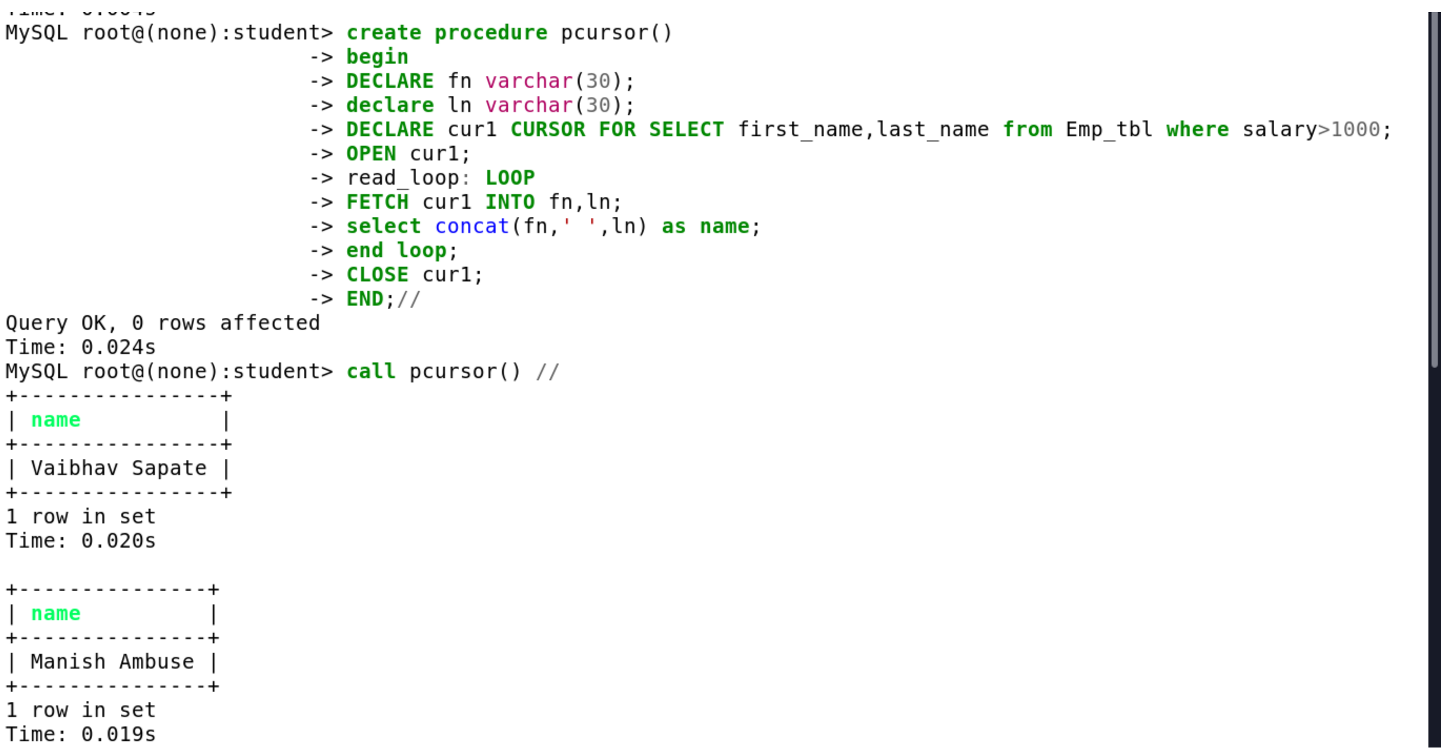


```
MySQL root@(none):movie> CREATE TABLE product_price_history
                      -> (product_id int, product_name varchar(32),
                      -> supplier_name varchar(32),
                      -> unit_price float(7,2) );//
                      -> CREATE TABLE product
                      -> (product_id int,
                      -> product_name varchar(32),
                      -> supplier_name varchar(32),
                      -> unit_price float(7,2) );//
Query OK, 0 rows affected
Time: 0.105s

Query OK, 0 rows affected
Time: 0.086s
MySQL root@(none):movie> CREATE TRIGGER price_history_trigger
                      -> BEFORE UPDATE on product
                      -> FOR EACH ROW BEGIN
                      -> INSERT INTO product_price_history
                      -> set product_id=old.product_id,
                      -> product_name=old.product_name,
                      -> supplier_name=old.supplier_name,
                      -> unit_price=old.unit_price;
                      -> END;//
Query OK, 0 rows affected
Time: 0.031s
MySQL root@(none):movie> UPDATE PRODUCT SET unit_price = 500 WHERE product_id = 103 //
(1146, "Table 'movie.PRODUCT' doesn't exist")
MySQL root@(none):movie> UPDATE product SET unit_price = 500 WHERE product_id = 103 //
Query OK, 1 row affected
Time: 0.015s
MySQL root@(none):movie> select * from product_price_history //
+------------+--------------+---------------+------------+
| product_id | product_name | supplier_name | unit_price |
+------------+--------------+---------------+------------+
| 103        | Keyboard     | HP INC.       | 800.0      |
+------------+--------------+---------------+------------+

1 row in set
```

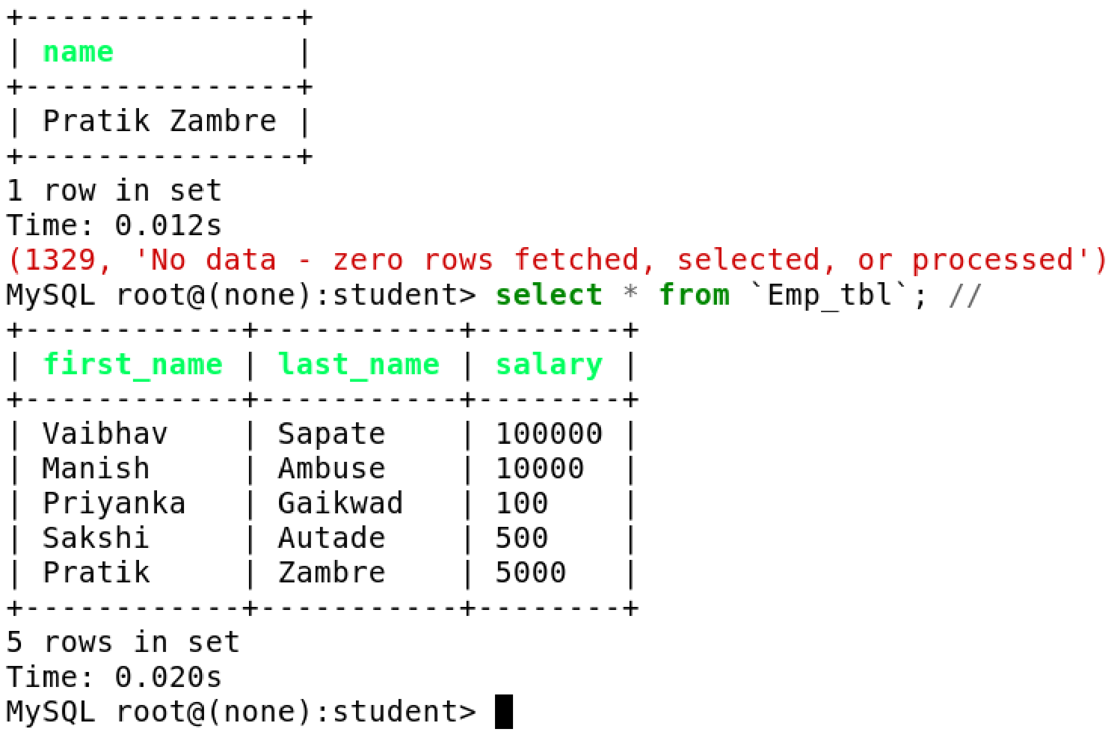


```
Time: 0.003s
MySQL root@(none):movie> create table account(accno int,amount int) //
Query OK, 0 rows affected
Time: 0.094s
MySQL root@(none):movie> CREATE TRIGGER upd_check BEFORE UPDATE ON account
                      -> FOR EACH ROW
                      -> BEGIN
                      -> IF NEW.amount < 0 THEN
                      -> SET NEW.amount = 0;
                      -> ELSEIF NEW.amount > 100 THEN
                      -> SET NEW.amount = 100;
                      -> END IF;
                      -> END;//
Query OK, 0 rows affected
Time: 0.034s
MySQL root@(none):movie> update account set amount= -12 where accno=3; //
Query OK, 1 row affected
Time: 0.016s
MySQL root@(none):movie> select * from account; //
+-------+--------+
| accno | amount |
+-------+--------+
| 1     | 100    |
| 2     | 10     |
| 3     | 0      |
+-------+--------+
3 rows in set
Time: 0.020s
MySQL root@(none):movie>
```

Experiment no: 11



```
MySQL root@(none):student> create procedure pcursor()
                        -> begin
                        -> DECLARE fn varchar(30);
                        -> declare ln varchar(30);
                        -> DECLARE cur1 CURSOR FOR SELECT first_name,last_name from Emp_tbl where salary>1000;
                        -> OPEN cur1;
                        -> read_loop: LOOP
                        -> FETCH cur1 INTO fn,ln;
                        -> select concat(fn,' ',ln) as name;
                        -> end loop;
                        -> CLOSE cur1;
                        -> END;//
Query OK, 0 rows affected
Time: 0.024s
MySQL root@(none):student> call pcursor() //
+----------------+
| name           |
+----------------+
| Vaibhav Sapate |
+----------------+
1 row in set
Time: 0.020s

+---------------+
| name          |
+---------------+
| Manish Ambuse |
+---------------+
1 row in set
Time: 0.019s
```



```
+---------------+
| name          |
+---------------+
| Pratik Zambre |
+---------------+
1 row in set
Time: 0.012s
(1329, 'No data - zero rows fetched, selected, or processed')
MySQL root@(none):student> select * from `Emp_tbl`; //
+------------+-----------+--------+
| first_name | last_name | salary |
+------------+-----------+--------+
| Vaibhav    | Sapate    | 100000 |
| Manish     | Ambuse    | 10000  |
| Priyanka   | Gaikwad   | 100    |
| Sakshi     | Autade    | 500    |
| Pratik     | Zambre    | 5000   |
+------------+-----------+--------+
5 rows in set
Time: 0.020s
MySQL root@(none):student> █
MySQL root@(none):view> create table t1(id int,data int);//
                     -> create table t2(i int);//
                     -> create table t3(i1 int,i2 int);//
Query OK, 0 rows affected
Time: 0.096s

Query OK, 0 rows affected
Time: 0.095s

Query OK, 0 rows affected
Time: 0.090s
MySQL root@(none):view> CREATE PROCEDURE curdemo()
                     -> BEGIN
                     -> DECLARE done INT DEFAULT FALSE;
                     -> DECLARE a CHAR(16);
                     -> DECLARE b, c INT;
                     -> DECLARE cur1 CURSOR FOR SELECT id,data FROM test.t1;
                     -> DECLARE cur2 CURSOR FOR SELECT i FROM test.t2;
                     -> OPEN cur1;
                     -> OPEN cur2;
                     -> read_loop: LOOP
                     -> FETCH cur1 INTO a, b;
                     -> FETCH cur2 INTO c;
                     -> IF b < c THEN
                     -> INSERT INTO test.t3 VALUES (a,b);
                     -> ELSE
                     -> INSERT INTO test.t3 VALUES (a,c);
                     -> END IF;
                     -> END LOOP;
                     -> CLOSE cur1;
                     -> CLOSE cur2;
                     -> END;//
```