DBMS LAB3

OUTPUTS & QUERIES

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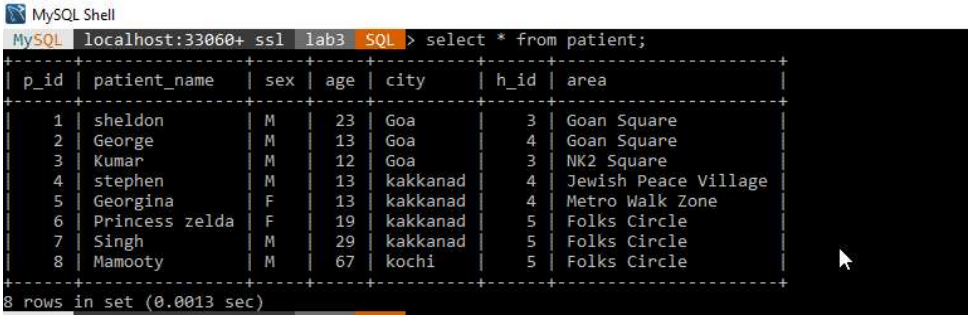
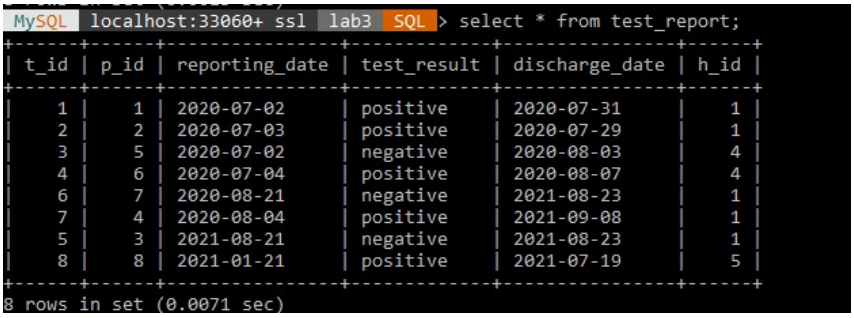
Patient Table:-



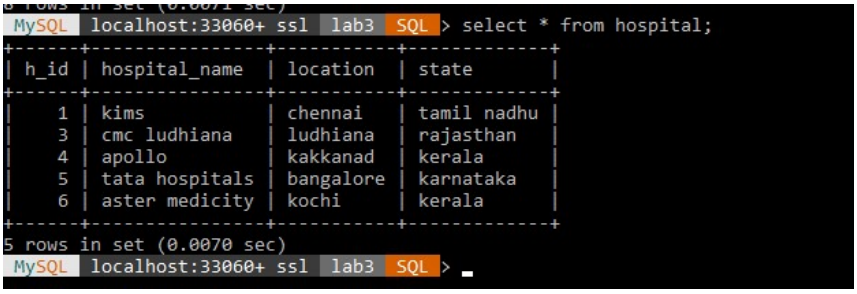
```
MySQL Shell
MySQL | localhost:33060+ ssl | lab3 | SQL > select * from patient;
+------+----------------+-----+-----+----------+------+----------------------+
| p_id | patient_name   | sex | age | city     | h_id | area                 |
+------+----------------+-----+-----+----------+------+----------------------+
|    1 | sheldon        | M   |  23 | Goa      |    3 | Goan Square          |
|    2 | George         | M   |  13 | Goa      |    4 | Goan Square          |
|    3 | Kumar          | M   |  12 | Goa      |    3 | NK2 Square           |
|    4 | stephen        | M   |  13 | kakkanad |    4 | Jewish Peace Village |
|    5 | Georgina       | F   |  13 | kakkanad |    4 | Metro Walk Zone      |
|    6 | Princess zelda | F   |  19 | kakkanad |    5 | Folks Circle         |
|    7 | Singh          | M   |  29 | kakkanad |    5 | Folks Circle         |
|    8 | Mamooty        | M   |  67 | kochi    |    5 | Folks Circle         |
+------+----------------+-----+-----+----------+------+----------------------+
8 rows in set (0.0013 sec)
```

Test_Report Table:-



```
MySQL | localhost:33060+ ssl | lab3 | SQL > select * from test_report;
+------+------+----------------+-------------+----------------+------+
| t_id | p_id | reporting_date | test_result | discharge_date | h_id |
+------+------+----------------+-------------+----------------+------+
|    1 |    1 | 2020-07-02     | positive    | 2020-07-31     |    1 |
|    2 |    2 | 2020-07-03     | positive    | 2020-07-29     |    1 |
|    3 |    5 | 2020-07-02     | negative    | 2020-08-03     |    4 |
|    4 |    6 | 2020-07-04     | positive    | 2020-08-07     |    4 |
|    6 |    7 | 2020-08-21     | negative    | 2021-08-23     |    1 |
|    7 |    4 | 2020-08-04     | positive    | 2021-09-08     |    1 |
|    5 |    3 | 2021-08-21     | negative    | 2021-08-23     |    1 |
|    8 |    8 | 2021-01-21     | positive    | 2021-07-19     |    5 |
+------+------+----------------+-------------+----------------+------+
8 rows in set (0.0071 sec)
```

Hospital Table:-



```
MySQL | localhost:33060+ ssl | lab3 | SQL > select * from hospital;
+------+----------------+-----------+-------------+
| h_id | hospital_name  | location  | state       |
+------+----------------+-----------+-------------+
|    1 | kims           | chennai   | tamil nadhu |
|    3 | cmc ludhiana   | ludhiana  | rajasthan   |
|    4 | apollo         | kakkanad  | kerala      |
|    5 | tata hospitals | bangalore | karnataka   |
|    6 | aster medicity | kochi     | kerala      |
+------+----------------+-----------+-------------+
5 rows in set (0.0070 sec)
MySQL | localhost:33060+ ssl | lab3 | SQL >
```

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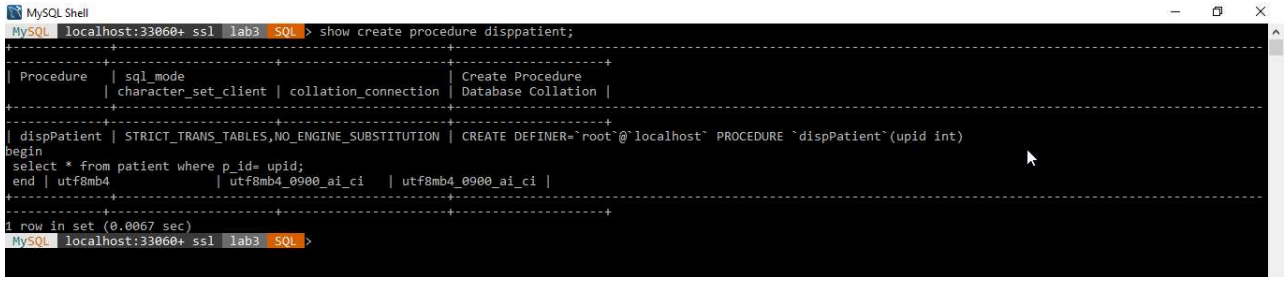
1. **Create a procedure to display the details of a patient record for a given Patient ID.**

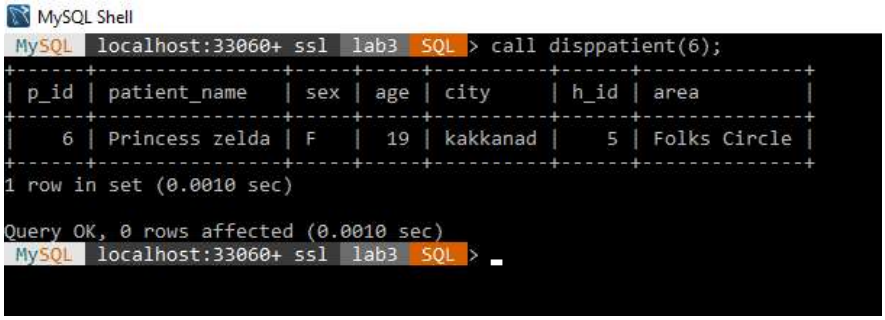
- **Query:-**

CREATE PROCEDURE dispPatient (u_pid int)

begin
SELECT * FROM patient WHERE p_id= u_pid; end //



- **Output:-**



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2. **Create a procedure to add details of a new patient record into patient table.**

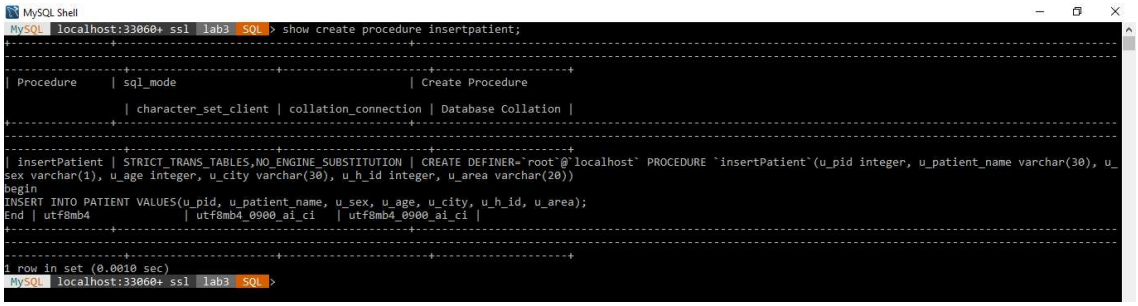
- **Query:-**

CREATE PROCEDURE insertPatient(u_pid integer, u_patient_name varchar(30), u_sex varchar(1), u_age integer, u_city varchar(30), u_h_id integer, u_area varchar(20))

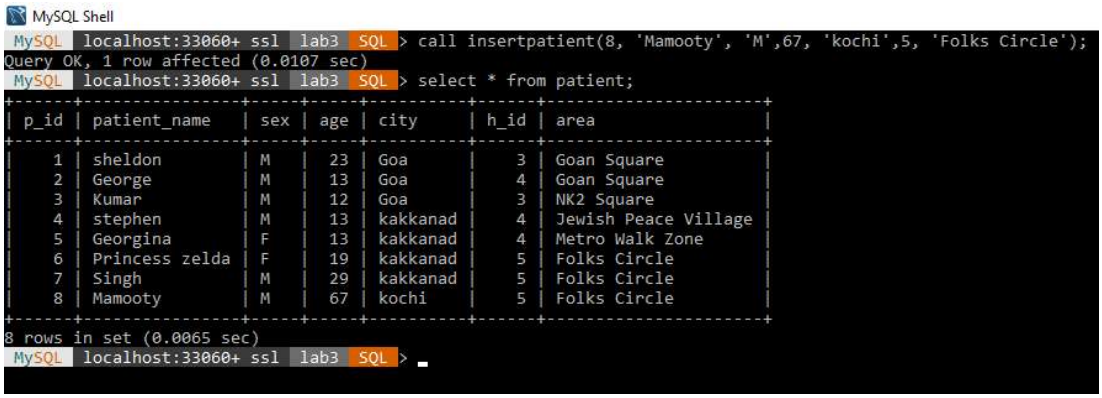
begin

INSERT INTO PATIENT VALUES(u_pid, u_patient_name, u_sex, u_age, u_city, u_h_id, u_area);

End //



- **Output:-**



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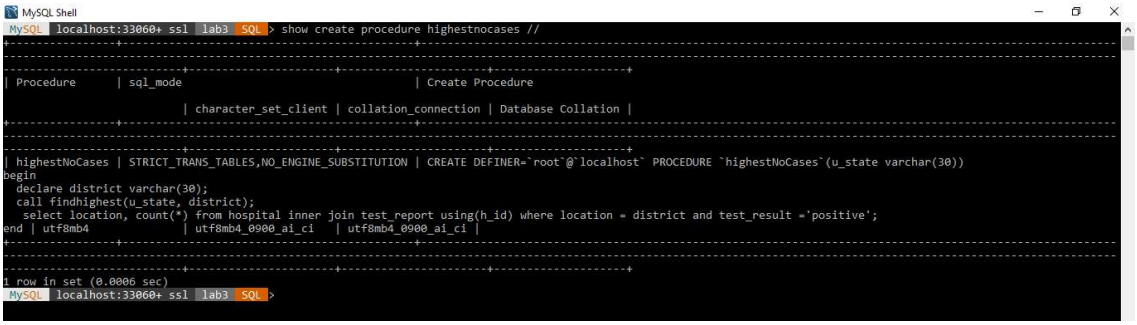
3. Write a procedure that lists the highest cases reported in a district of any particular state. Use the procedure named Find_highest which finds the highest cases for the given State.

- **Query:-**

➢ **highestNoCases procedure:-**

```
create procedure highestNoCases(u_state varchar(30))

begin

declare district varchar(30);

call findhighest(u_state, district);

select location, count(*) from hospital inner join test_report using(h_id) where
location = district and test_result ='positive';
```

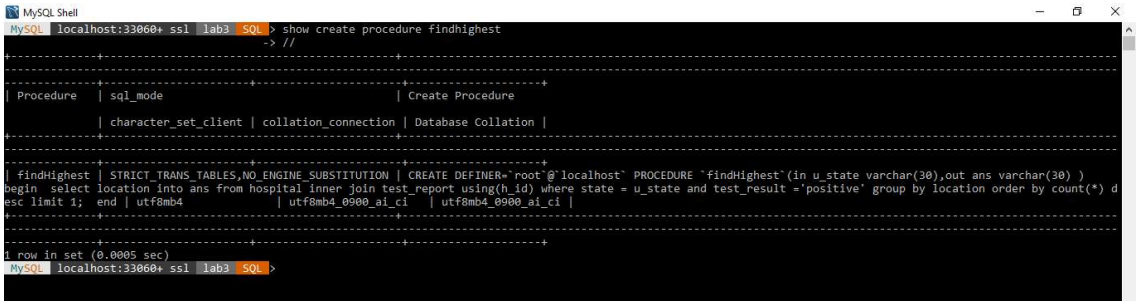
end //



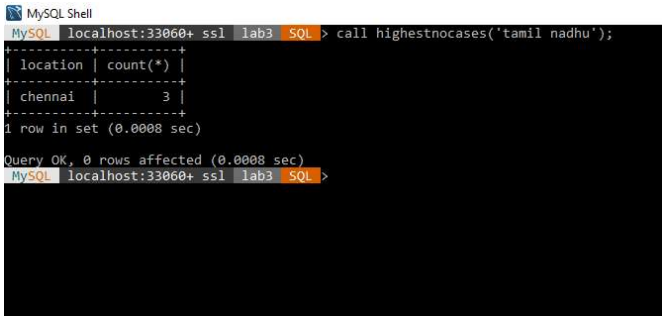
- **findHighest procedure:-**

  create procedure findHighest(in u_state varchar(30),out ans varchar(30))

  begin select location into ans from hospital inner join test_report using(h_id) where state = u_state and test_result ='positive' group by location order by count(*) desc limit 1; end //



- **Output:-**



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4. Write a procedure to list the hospital, which has fastest recovery.

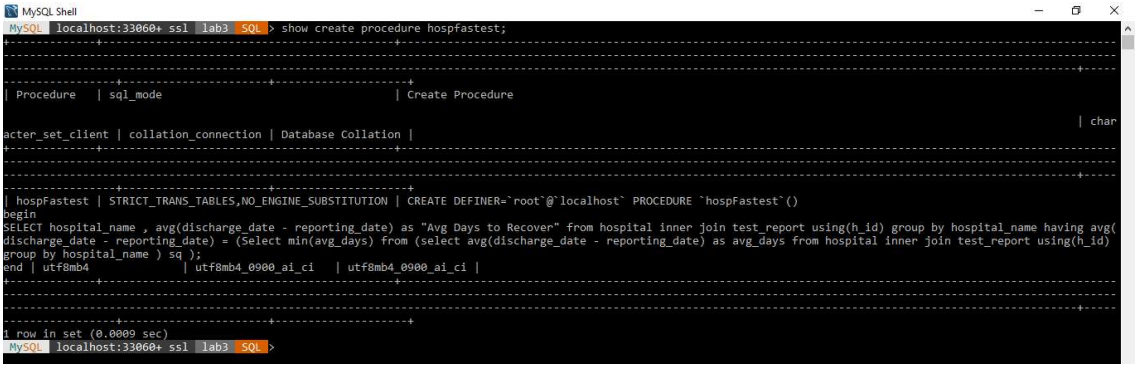
- **Query:-**

CREATE PROCEDURE hospFastest()

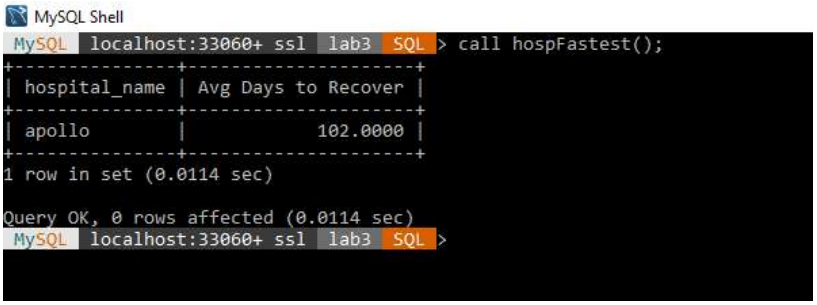
begin

SELECT hospital_name , avg(discharge_date - reporting_date) as "Avg Days to Recover" from hospital inner join test_report using(h_id) group by hospital_name having avg(discharge_date - reporting_date) = (Select min(avg_days) from (select avg(discharge_date - reporting_date) as avg_days from hospital inner join test_report using(h_id) group by hospital_name) sq);

end //



- **Output:-**



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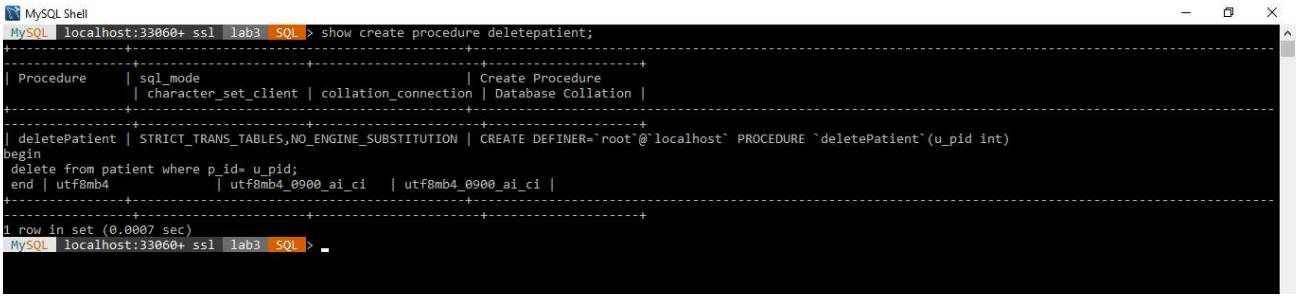
5. Create a procedure to delete a record from patient table

- **Query:-**

CREATE PROCEDURE deletepatient(u_pid integer)

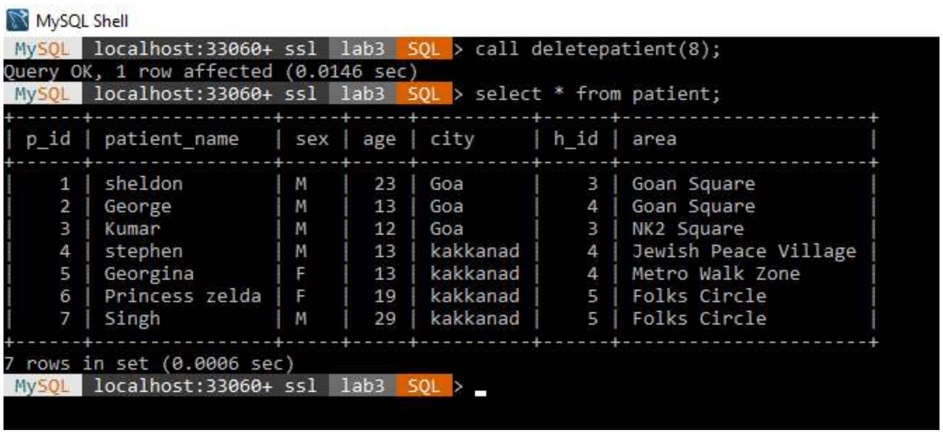
Delete from patient where p_id = u_pid;

end //



```
MySQL localhost:33060+ ssl lab3 SQL > show create procedure deletepatient;
| Procedure     | sql_mode                                  | Create Procedure
                 | character_set_client | collation_connection | Database Collation |
| deletePatient | STRICT_TRANS_TABLES,NO_ENGINE_SUBSTITUTION | CREATE DEFINER=`root`@`localhost` PROCEDURE `deletePatient`(u_pid int)
begin
 delete from patient where p_id= u_pid;
 end | utf8mb4              | utf8mb4_0900_ai_ci   | utf8mb4_0900_ai_ci |
1 row in set (0.0007 sec)
MySQL localhost:33060+ ssl lab3 SQL >
```

- **<u>Output:-</u>**



```
MySQL localhost:33060+ ssl lab3 SQL > call deletepatient(8);
Query OK, 1 row affected (0.0146 sec)
MySQL localhost:33060+ ssl lab3 SQL > select * from patient;
```

p_id	patient_name	sex	age	city	h_id	area
1	sheldon	M	23	Goa	3	Goan Square
2	George	M	13	Goa	4	Goan Square
3	Kumar	M	12	Goa	3	NK2 Square
4	stephen	M	13	kakkanad	4	Jewish Peace Village
5	Georgina	F	13	kakkanad	4	Metro Walk Zone
6	Princess zelda	F	19	kakkanad	5	Folks Circle
7	Singh	M	29	kakkanad	5	Folks Circle

```
7 rows in set (0.0006 sec)
MySQL localhost:33060+ ssl lab3 SQL >
```

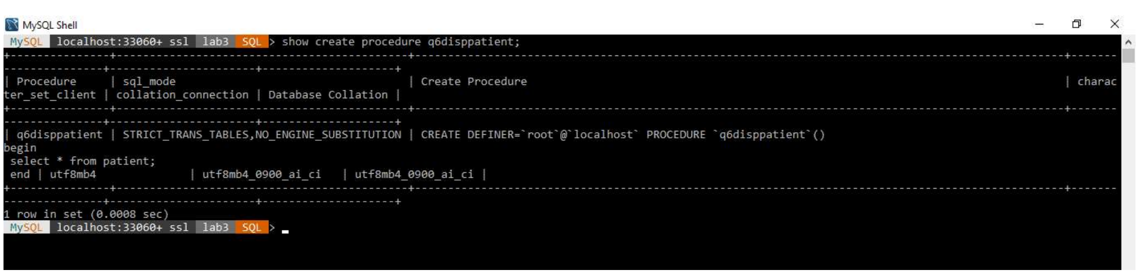
<u>6. Write a function to display the patient details from the Patient table.</u>

- **<u>Query:-</u>**

<u>PROCEDURAL APPROACH:-</u>

create procedure q6disppatient()

begin select * from patient; END //



```
MySQL localhost:33060+ ssl lab3 SQL > show create procedure q6disppatient;
| Procedure     | sql_mode                                  | Create Procedure                                                  | charac
ter_set_client | collation_connection | Database Collation |
| q6disppatient | STRICT_TRANS_TABLES,NO_ENGINE_SUBSTITUTION | CREATE DEFINER=`root`@`localhost` PROCEDURE `q6disppatient`()
begin
 select * from patient;
 end | utf8mb4              | utf8mb4_0900_ai_ci   | utf8mb4_0900_ai_ci |
1 row in set (0.0008 sec)
MySQL localhost:33060+ ssl lab3 SQL >
```

FUNCTIONAL APPROACH:-

However, it is possible to retrieve single set information with functions. For instance, retrieve patient name when given patient id.

create function patientName(u_pid int) returns varchar(30) deterministic

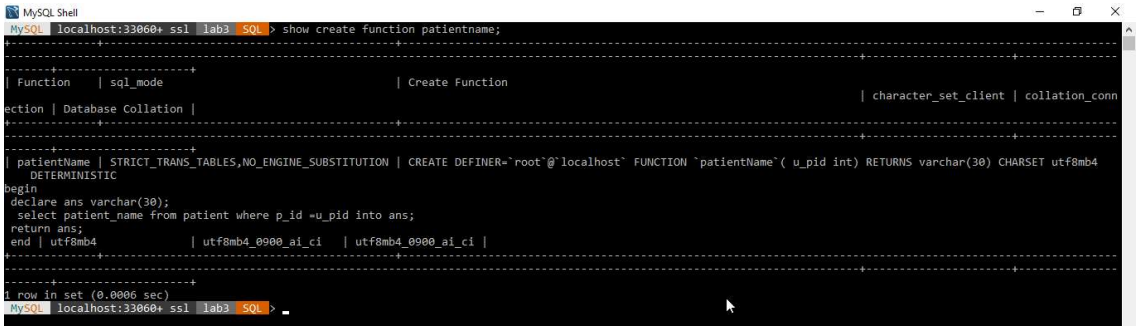
begin

declare ans varchar(30);

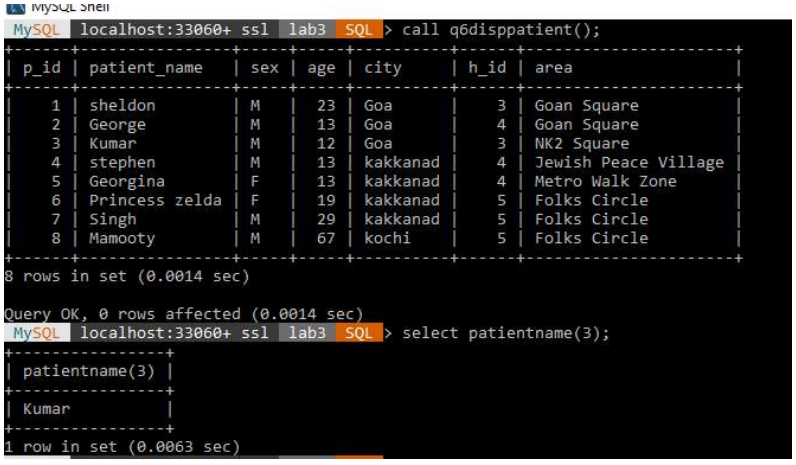
select patient_name from patient where p_id =u_pid into ans;

return ans;

end //



- **Outputs:-**



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7. Write a function to list the state, which has reported with maximum child COVID cases

- **Query:-**

create function stateMaxChild() returns varchar(30) deterministic

begin

declare ans varchar(30);

select state into ans from test_report inner join hospital using(h_id) inner join patient using(p_id) where age<18 and test_result='positive' group by state having

count(*) = (select max(no_of_cases) from (select count(*) as no_of_cases from test_report

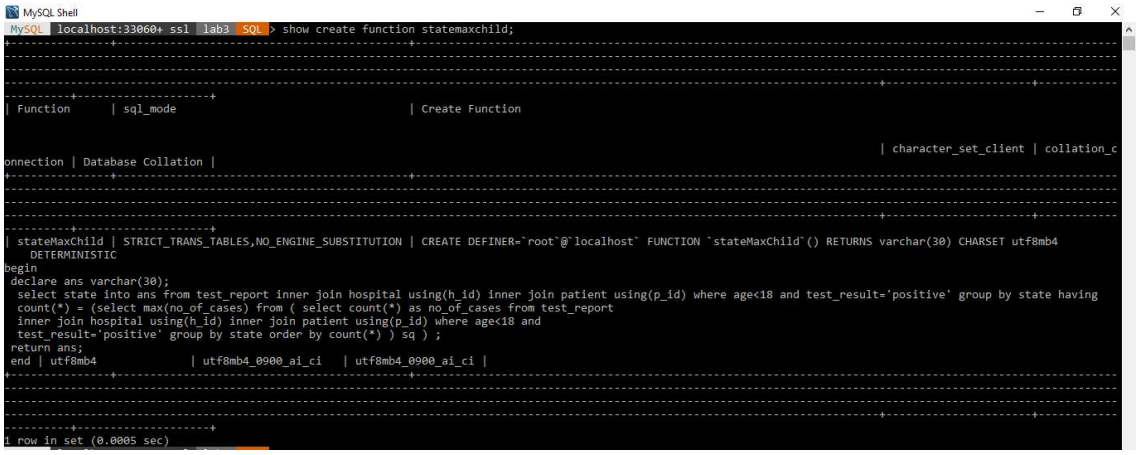
inner join hospital using(h_id) inner join patient using(p_id) where age<18 and

test_result='positive' group by state order by count(*)) sq) ;

return ans;

end //

delimiter ; //



- **Output:-**

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8. Write a function to find the hotpot area in a district based on the Test results

- **Query:-**

create function hotspotArea() returns varchar(30) deterministic

begin

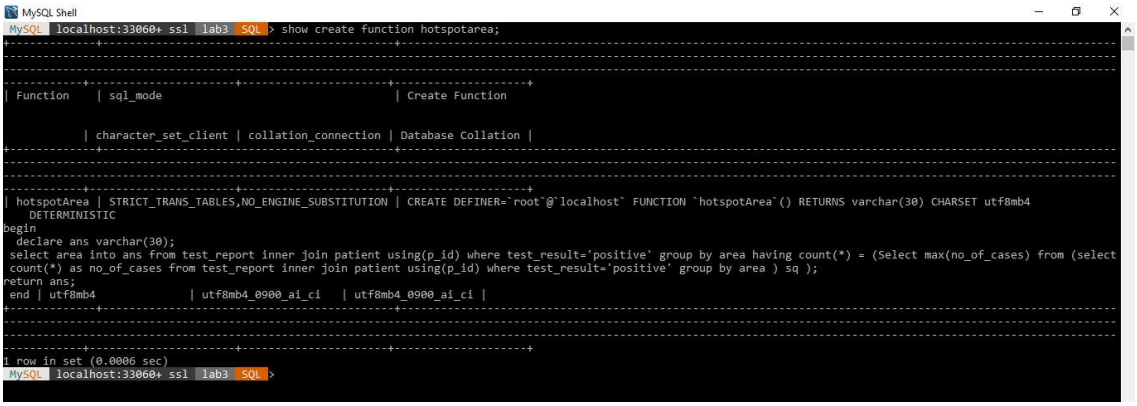
declare ans varchar(30);

select area into ans from test_report inner join patient using(p_id) where test_result='positive' group by area having count(*) = (Select max(no_of_cases) from (select count(*) as no_of_cases from test_report inner join patient using(p_id) where test_result='positive' group by area) sq);

return ans;

end//

delimiter ; //



- **Output:-**

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9. Write a function to display total number of male and female patients tested for COVID of which how many are reported with positive in a particular state.

- **Query:-**

create function positiveCount() returns int deterministic

begin

declare ans int;

select count(*) into ans from hospital inner join test_report using(h_id) group by test_result having test_result= 'positive';

return ans;

end//

- **Output:-**

---

10. Write a function to display the average days for the recovery of child, adults and senior citizen of a particular hospital.

- **Query:-**

Delimiter //;

Create procedure avgRecovery()

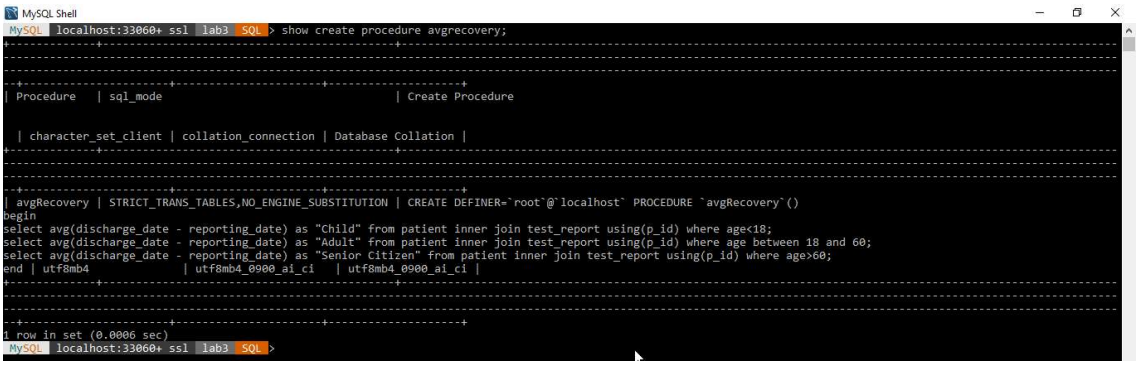
begin

select avg(discharge_date - reporting_date) as "Child" from patient inner join test_report using(p_id) where age<18;

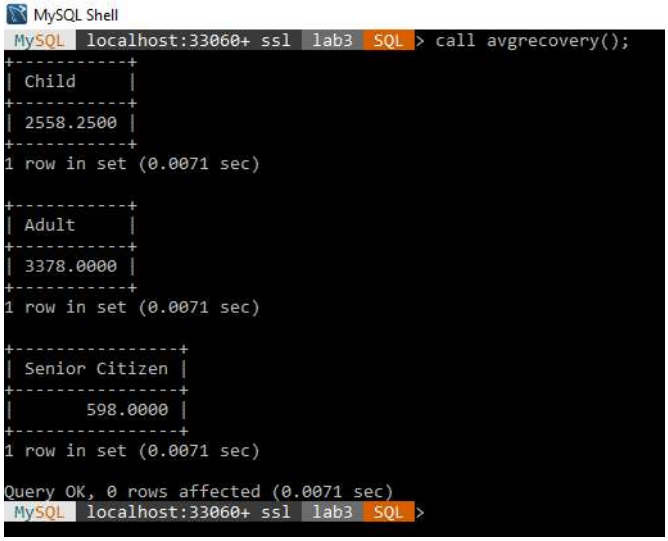
select avg(discharge_date - reporting_date) as "Adult" from patient inner join test_report using(p_id) where age between 18 and 60;

select avg(discharge_date - reporting_date) as "Senior Citizen" from patient inner join test_report using(p_id) where age>60;

end //



- **Output:-**



THANK YOU!
