WEEK - 2 ASSIGNMENT

MODERN APPLICATION DEVELOPMENT WITH JAVA SPRINGBOOT

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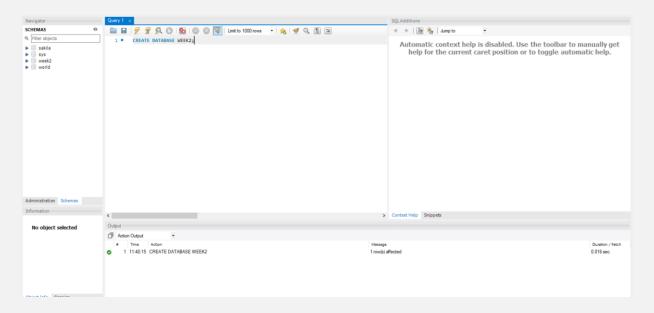
TASK - 1. To perform create, update and delete commands in MySQL. TASK - 2. To create tables and perform joins in MySQL. TASK - 3. To perform create, update and delete command in MongoDB.

TASK 1 – To perform create, update and delete commands in MySQL.

1. Create database in MySQL

Command – CREATE DATABASE WEEK2;

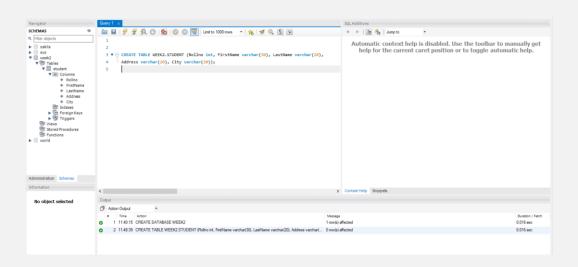
Output -



2. Create a table named STUDENT in database WEEK2.

Command -

CREATE TABLE WEEK2.STUDENT (Rollno int, FirstName varchar(30), LastName varchar(20), Address varchar(20), City varchar(20));



3. Inserting data in STUDENT table.

Commands -

INSERT INTO WEEK2.STUDENT (Rollno, FirstName, LastName, Address, City) VALUES (1, 'Ram', 'Kumar', 'Leelapth', 'Jammu');

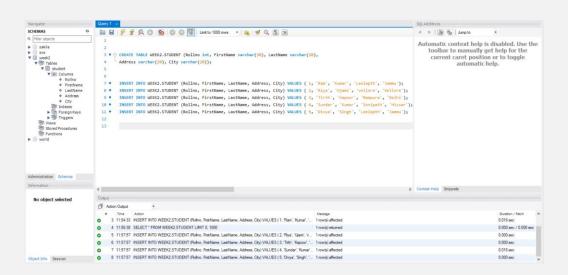
INSERT INTO WEEK2.STUDENT (Rollno, FirstName, LastName, Address, City) VALUES (2, 'Riya', 'Ujami', 'vellore', 'Vellore');

INSERT INTO WEEK2.STUDENT (Rollno, FirstName, LastName, Address, City) VALUES (3, 'Tirth', 'Kapoor', 'Rampura', 'Delhi');

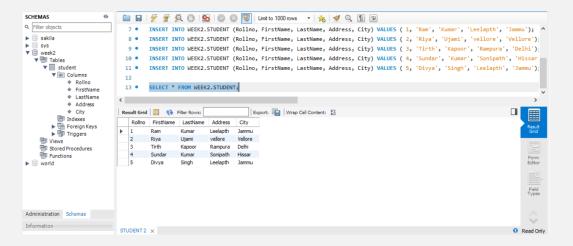
INSERT INTO WEEK2.STUDENT (Rollno, FirstName, LastName, Address, City) VALUES (4, 'Sundar', 'Kumar', 'Sonipath', 'Hissar');

INSERT INTO WEEK2.STUDENT (Rollno, FirstName, LastName, Address, City) VALUES (5, 'Divya', 'Singh', 'Leelapth', 'Jammu');

Output -



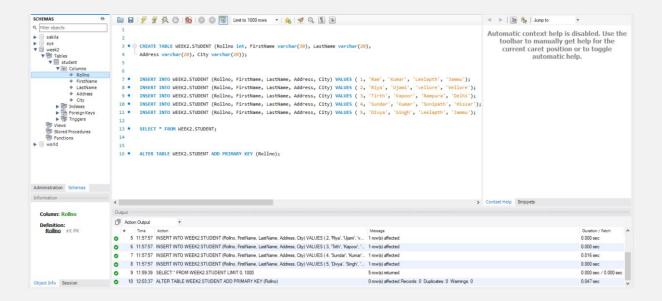
Showing table values using 'SELECT * FROM WEEK2.STUDENT;



3. Declaring Rollno as Primary Key In STUDENT TABLE;

Command – ALTER TABLE WEEK2.STUDENT ADD PRIMARY KEY (Rollno);

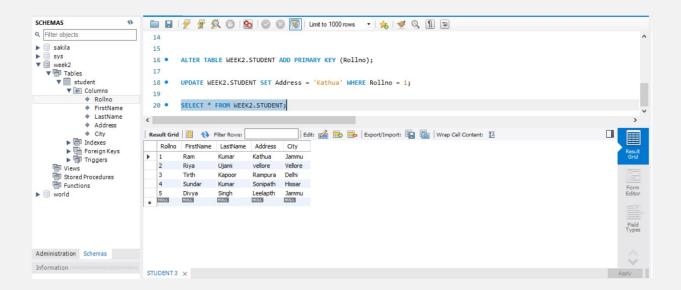
Output -



4. Updating Address = 'Kathua' where Rollno = 1;

Command -

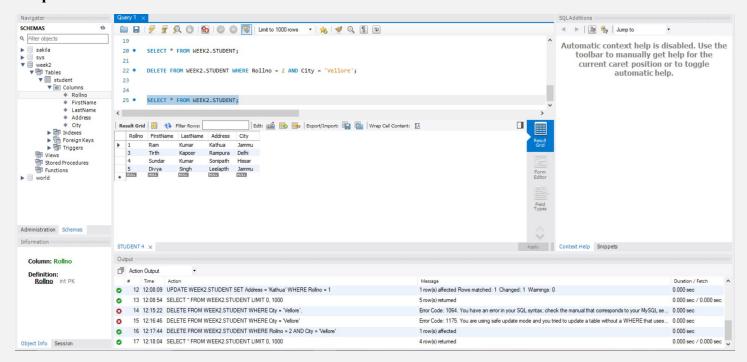
UPDATE WEEK2.STUDENT SET Address = 'Kathua' WHERE Rollno = 1;



5. Deleting row in STUDENT TABLE where Rollno = 2 and City = Vellore.

Command -

DELETE FROM WEEK2.STUDENT WHERE Rollno = 2 AND City = 'Vellore'.

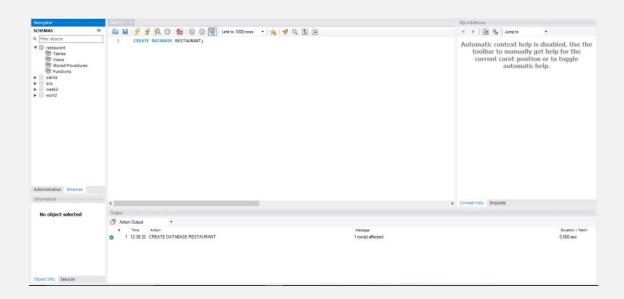


TASK 2 – Create tables and perform joins in MySQL.

1. Creating a database

Command - CREATE DATABASE RESTAURANT

Output -



2. Creating tables 'ORDERS' and 'CUSTOMERS'.

Commands -

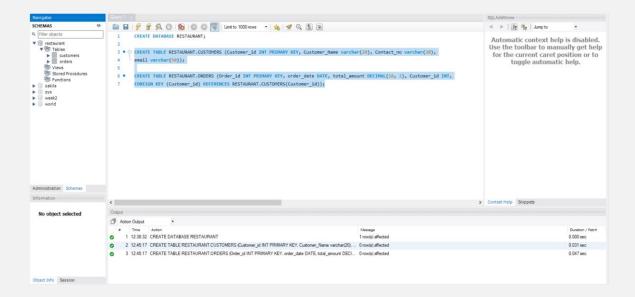
CREATE TABLE RESTAURANT.CUSTOMERS (Customer_id INT PRIMARY KEY, Customer_Name varchar(20), Contact_no varchar(20),

email varchar(50));

CREATE TABLE RESTAURANT.ORDERS (Order_id INT PRIMARY KEY, order_date DATE, total_amount DECIMAL(10, 2), Customer id INT,

FOREIGN KEY (Customer id) REFERENCES RESTAURANT.CUSTOMERS(Customer id));

Output -



2. Inserting data into the Customers and Orders Table.

Commands -

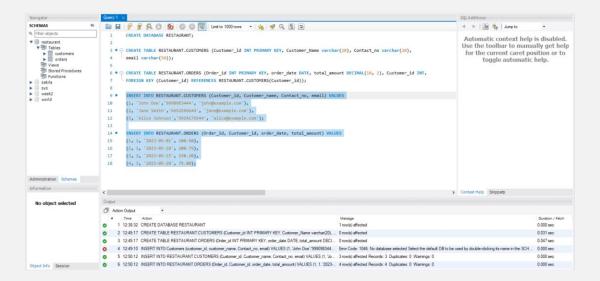
INSERT INTO RESTAURANT.CUSTOMERS (Customer_id, Customer_name, Contact_no, email) VALUES

- $(1, 'John\ Doe', '9990983444', 'john@example.com'),$
- (2, 'Jane Smith', '6652856644', 'jane@example.com'),
- (3, 'Alice Johnson', '9924175544', 'alice@example.com');

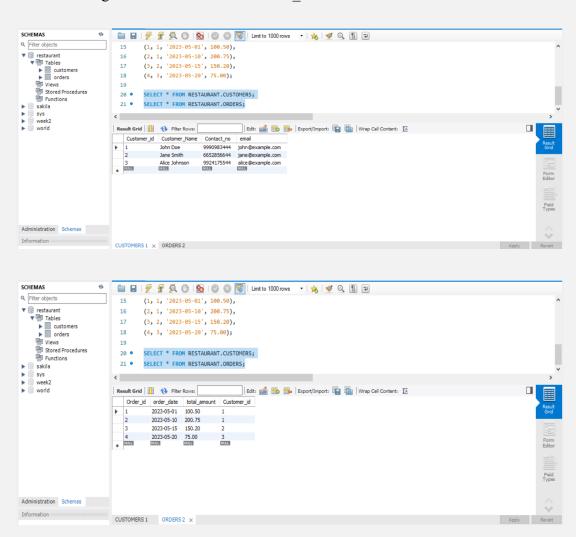
INSERT INTO RESTAURANT.ORDERS (Order id, Customer id, order date, total amount) VALUES

- (1, 1, '2023-05-01', 100.50),
- (2, 1, '2023-05-10', 200.75),
- (3, 2, '2023-05-15', 150.20),
- (4, 3, '2023-05-20', 75.00);

Output –



Showing Table values using 'SELECT * FROM TABLE NAME'.



3. Performing JOINS on CUSTOMERS AND ORDERS tables.

a) Inner Join - Retrieves matching records from both tables based on a specified condition.

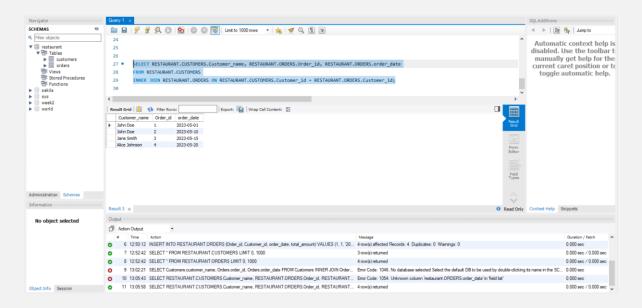
Command -

SELECT RESTAURANT.CUSTOMERS.Customer_name, RESTAURANT.ORDERS.Order_id, RESTAURANT.ORDERS.order_date

FROM RESTAURANT.CUSTOMERS

INNER JOIN RESTAURANT.ORDERS ON RESTAURANT.CUSTOMERS.Customer_id = RESTAURANT.ORDERS.Customer_id;

Output -



b) Left Join - Retrieves all records from the left table and the matching records from the right table, if any.

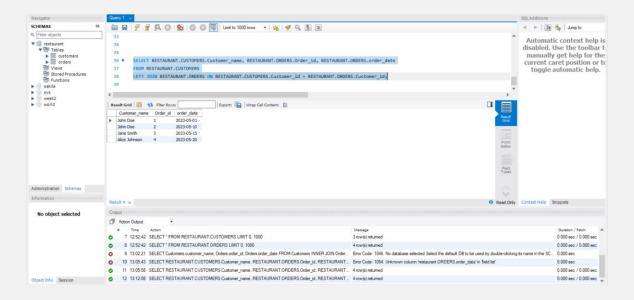
Commands -

SELECT RESTAURANT.CUSTOMERS.Customer_name, RESTAURANT.ORDERS.Order_id, RESTAURANT.ORDERS.order_date

FROM RESTAURANT.CUSTOMERS

LEFT JOIN RESTAURANT.ORDERS ON RESTAURANT.CUSTOMERS.Customer_id = RESTAURANT.ORDERS.Customer_id;

Output -



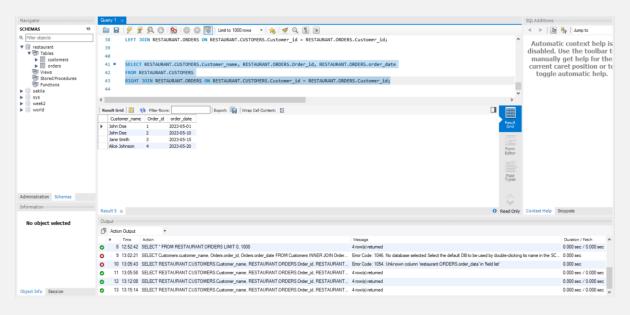
c) Right Join – Retrieves all records from the right table and the matching records from the left table, if any.

Command -

SELECT RESTAURANT.CUSTOMERS.Customer_name, RESTAURANT.ORDERS.Order_id, RESTAURANT.ORDERS.order_date

FROM RESTAURANT.CUSTOMERS

RIGHT JOIN RESTAURANT.ORDERS ON RESTAURANT.CUSTOMERS.Customer_id = RESTAURANT.ORDERS.Customer_id;



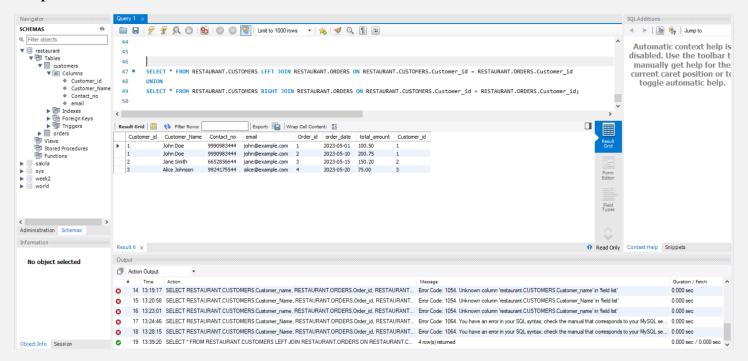
d) Full Join - Retrieves all records when there is a match in either the left or right table.

Command -

SELECT * FROM RESTAURANT.CUSTOMERS LEFT JOIN RESTAURANT.ORDERS ON RESTAURANT.CUSTOMERS.Customer_id = RESTAURANT.ORDERS.Customer_id

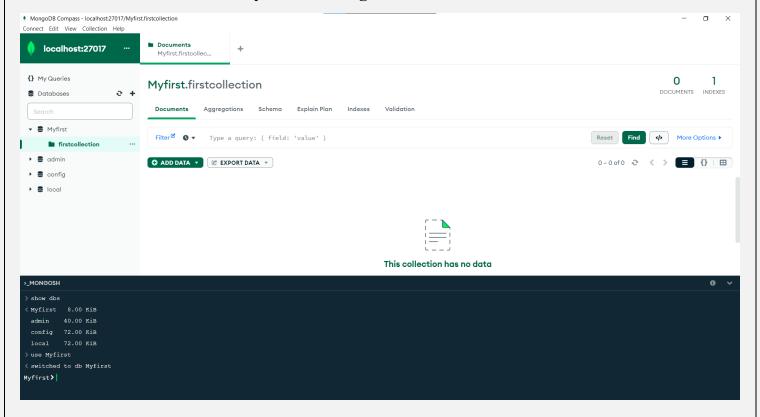
UNION

SELECT * FROM RESTAURANT.CUSTOMERS RIGHT JOIN RESTAURANT.ORDERS ON RESTAURANT.CUSTOMERS.Customer_id = RESTAURANT.ORDERS.Customer_id;



TASK 3 – Create, update and delete commands in MongoDB.

Created a database named Myfirst in MongoDB.



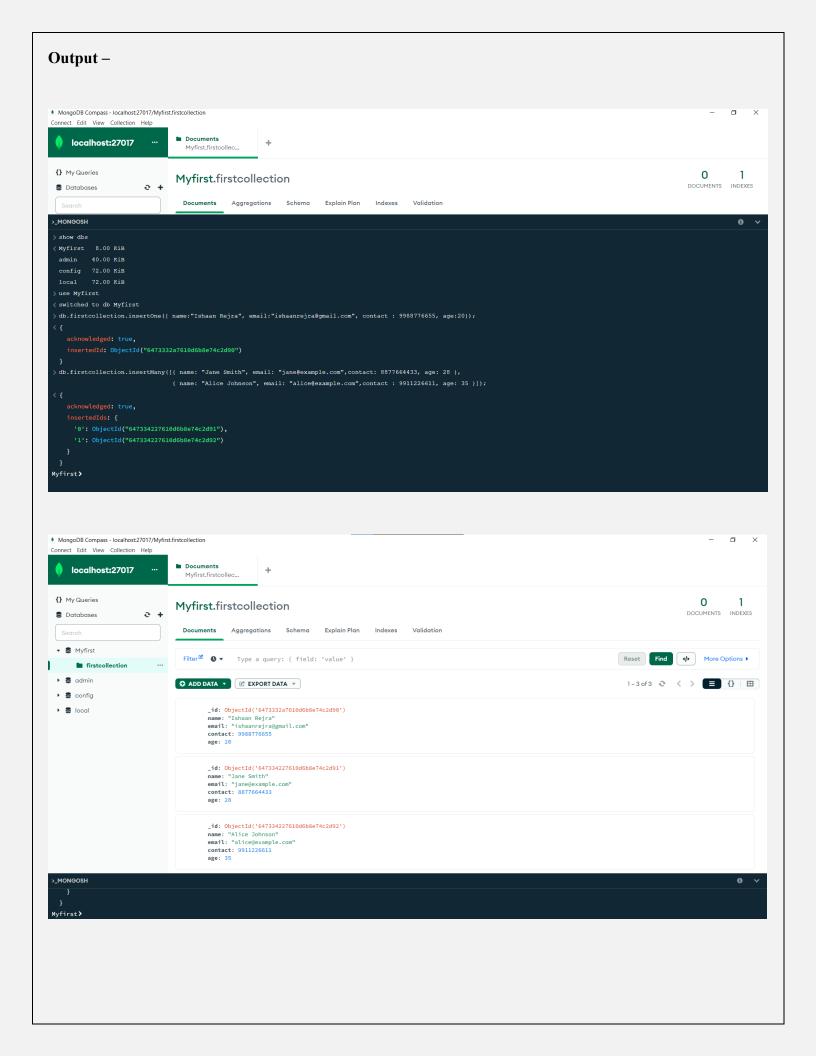
1. Insert in MongoDB

Command -

To insert One record -

```
db.firstcollection.insertOne({ name:"Ishaan Rejra", email:"ishaanrejra@gmail.com",
contact : 9988776655, age:20});
```

To insert multiple records –



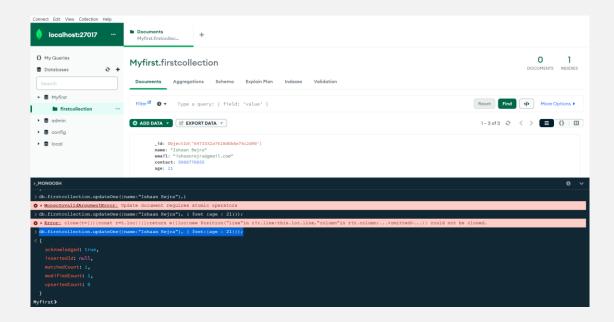
2. To update document in MongoDB

Commands -

To update One detail -

db.firstcollection.updateOne({name:"Ishaan Rejra"}, { \$set:{age : 21}});

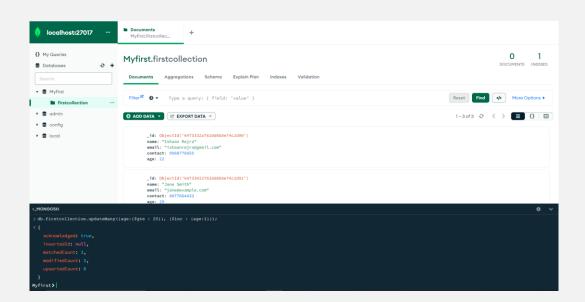
Output -



To update multiple details -

db.firstcollection.updateMany({age:{\$gte : 20}}, {\$inc : {age:1}});

Output:



3. Delete command in MongoDB.

Commands -

To delete a single document -

```
db.firstcollection.deleteOne({name : "Jane Smith"});
```

Output -

```
Myfirst.firstcollection

Documents Aggregations Scheme Explain Plan Indexes Validation

Filter® Type a query: {field: 'value' }

More Options >

Config

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get 22

[46: Objectia('647333276186868674c2692')

name: 'Natice Johnson'

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age: 22

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Documents Aggregations Scheme Explain Plan Indexes Validation

Reset Find (A More Options >

Documents More Options >

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```

To delete multiple documents -

```
db.firstcollection.deleteMany({ age: { $gte: 20 } });
```

