

SkillAssure Discoveri

SQL Hands-on Nugget

SkillAssure



MySQL

Goal:

To understand how to execute basic SQL queries and retrieve data from the Database based on certain conditions.

05


Activities

17

Steps

Activity-A: Understanding the SQL Landscape Elements

Step-A.1: Observe the different types of SQL Queries (INSERT, CREATE, SELECT, DROP) from the Query provided for Database Restoration in the “**HeartiHealth DB Script**” file.

 HeartiHealth DB Schema Script - Notepad

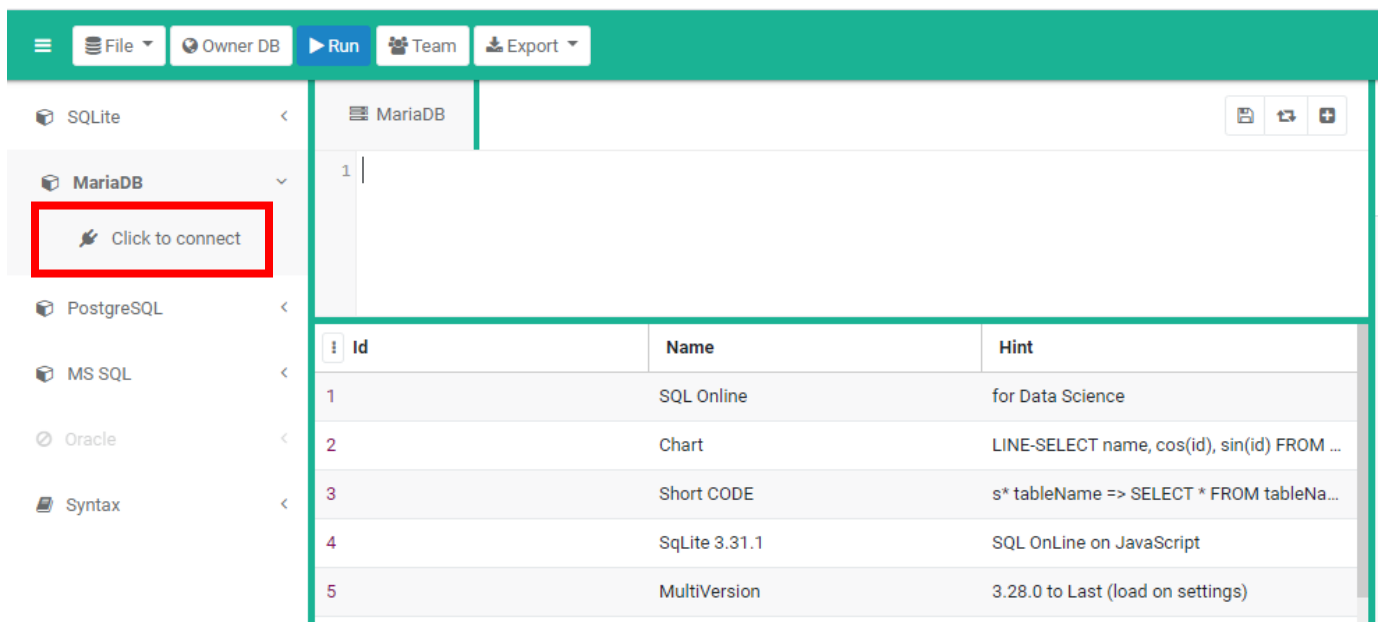
File Edit Format View Help

```
CREATE TABLE IF NOT EXISTS `memberinfo` (  
  `member_id` VARCHAR(45) NOT NULL,  
  `username` VARCHAR(45) NULL DEFAULT NULL,  
  `firstname` VARCHAR(45) NULL DEFAULT NULL,  
  `lastname` VARCHAR(45) NULL DEFAULT NULL,  
  `age` INT(11) NULL DEFAULT NULL,  
  `gender` VARCHAR(45) NULL DEFAULT NULL,  
  `email` VARCHAR(45) NULL DEFAULT NULL,  
  `phonenumber` BIGINT(100) NULL DEFAULT NULL,  
  PRIMARY KEY (`member_id`))  
ENGINE = InnoDB  
DEFAULT CHARACTER SET = latin1;  
  
-----  
-- Table `addressinfo`  
-----  
CREATE TABLE IF NOT EXISTS `addressinfo` (  
  `address_id` VARCHAR(45) NOT NULL,  
  `city` VARCHAR(45) NULL DEFAULT NULL,  
  `state` VARCHAR(45) NULL DEFAULT NULL,  
  `country` VARCHAR(45) NULL DEFAULT NULL,  
  `pincode` VARCHAR(45) NULL DEFAULT NULL,  
  `memberinfo_member_id` VARCHAR(45) NOT NULL,  
  PRIMARY KEY (`address_id`, `memberinfo_member_id`),  
  INDEX `fk_addressinfo_memberinfo_idx` (`memberinfo_member_id` ASC),  
  CONSTRAINT `fk_addressinfo_memberinfo`  
    FOREIGN KEY (`memberinfo_member_id`)  
    REFERENCES `memberinfo` (`member_id`)  
    ON DELETE NO ACTION  
    ON UPDATE NO ACTION)  
ENGINE = InnoDB  
DEFAULT CHARACTER SET = latin1;  
  
-----
```

Activity-B: Get all the predictions for the day and sort it with the highest percentage of probability at the top

Step-B.1: Open Chrome Browser and open the following URL: <https://sqliteonline.com/>

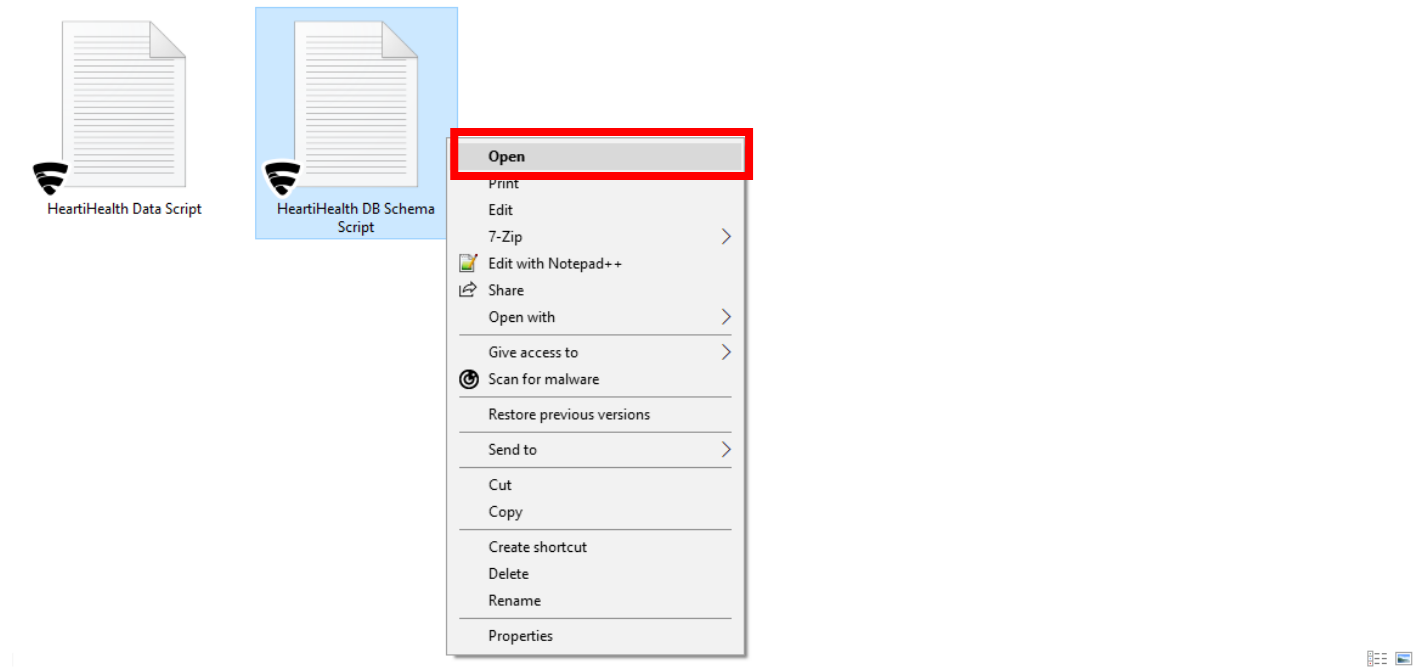
Step-B.2: Expand MariaDB and click on “Click to Connect” as shown below:



The screenshot shows the SQLite Online web application interface. The top navigation bar includes a menu icon, 'File', 'Owner DB', 'Run', 'Team', and 'Export' buttons. On the left sidebar, the 'MariaDB' section is expanded, and the 'Click to connect' button is highlighted with a red rectangle. The main area displays a table with the following data:

Id	Name	Hint
1	SQL Online	for Data Science
2	Chart	LINE-SELECT name, cos(id), sin(id) FROM ...
3	Short CODE	s* tableName => SELECT * FROM tableNa...
4	SQLite 3.31.1	SQL OnLine on JavaScript
5	MultiVersion	3.28.0 to Last (load on settings)

Step-B.3: Right click on the “HeartiHealth DB Schema Script” file, from your Downloads folder and open it as shown:



Step-B.4: Press **Ctrl+A** to select the entire script and **Ctrl+C** to copy the Script.

```
HeartiHealth DB Schema Script - Notepad
File Edit Format View Help

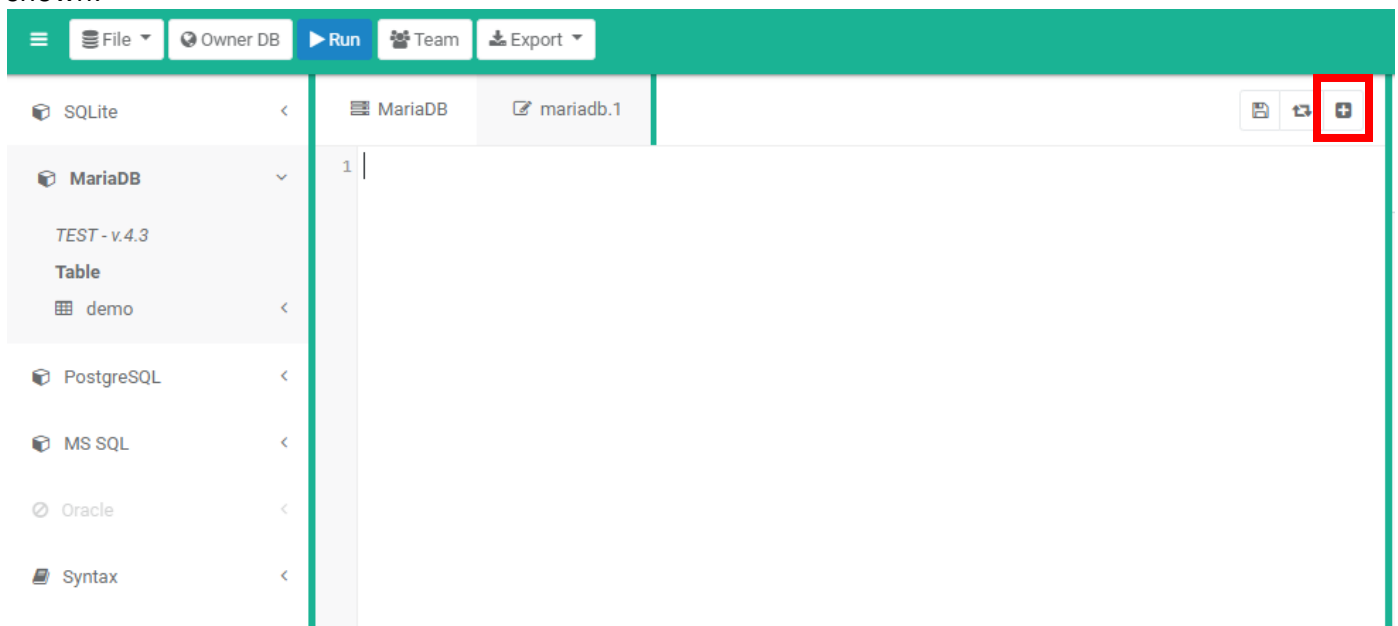
CREATE TABLE IF NOT EXISTS `memberinfo` (
  `member_id` VARCHAR(45) NOT NULL,
  `username` VARCHAR(45) NULL DEFAULT NULL,
  `firstname` VARCHAR(45) NULL DEFAULT NULL,
  `lastname` VARCHAR(45) NULL DEFAULT NULL,
  `age` INT(11) NULL DEFAULT NULL,
  `gender` VARCHAR(45) NULL DEFAULT NULL,
  `email` VARCHAR(45) NULL DEFAULT NULL,
  `phonenumber` BIGINT(100) NULL DEFAULT NULL,
  PRIMARY KEY (`member_id`))
ENGINE = InnoDB
DEFAULT CHARACTER SET = latin1;

-- Table `addressinfo`
CREATE TABLE IF NOT EXISTS `addressinfo` (
  `address_id` VARCHAR(45) NOT NULL,
  `city` VARCHAR(45) NULL DEFAULT NULL,
  `state` VARCHAR(45) NULL DEFAULT NULL,
  `country` VARCHAR(45) NULL DEFAULT NULL,
  `pincode` VARCHAR(45) NULL DEFAULT NULL,
  `memberinfo_member_id` VARCHAR(45) NOT NULL,
  PRIMARY KEY (`address_id`, `memberinfo_member_id`),
  INDEX `fk_addressinfo_memberinfo_idx` (`memberinfo_member_id` ASC),
```

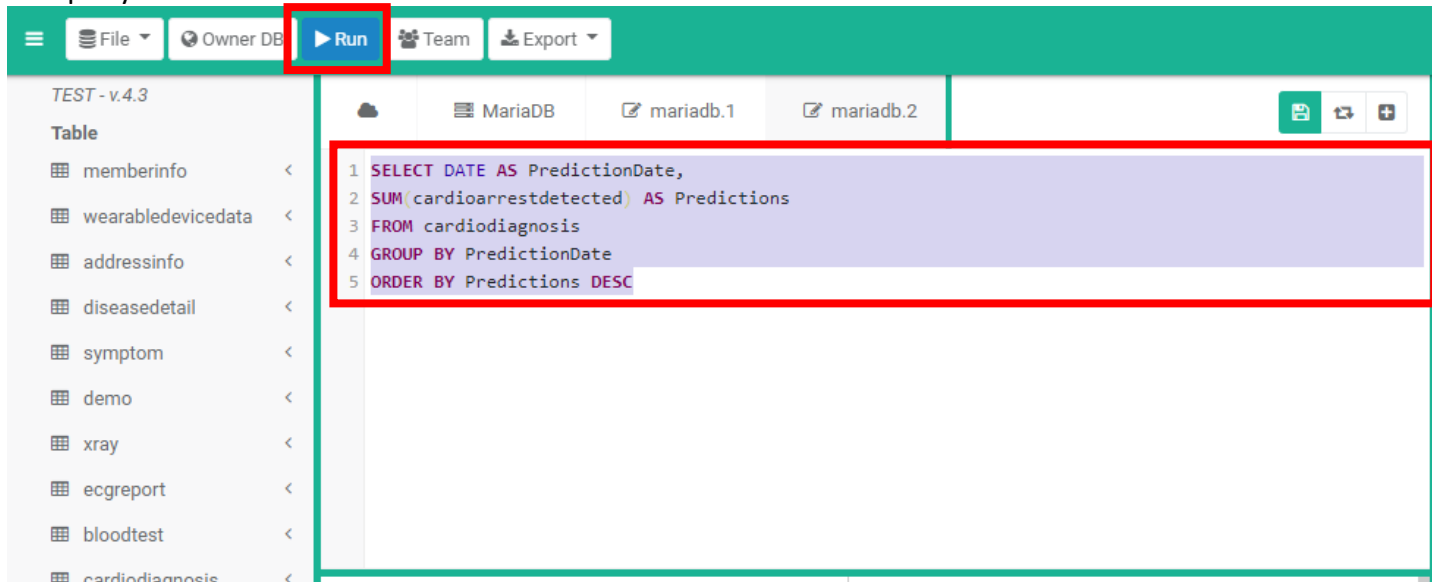
Step-B.5: Paste the entire script in the Editor by pressing **Ctrl+V** and execute the script by clicking on the Run Button as shown below, to create the Tables.



Step-B.6: Open a new Query Editor tab in the MariaDB by clicking on the **Plus(+)** button as shown:



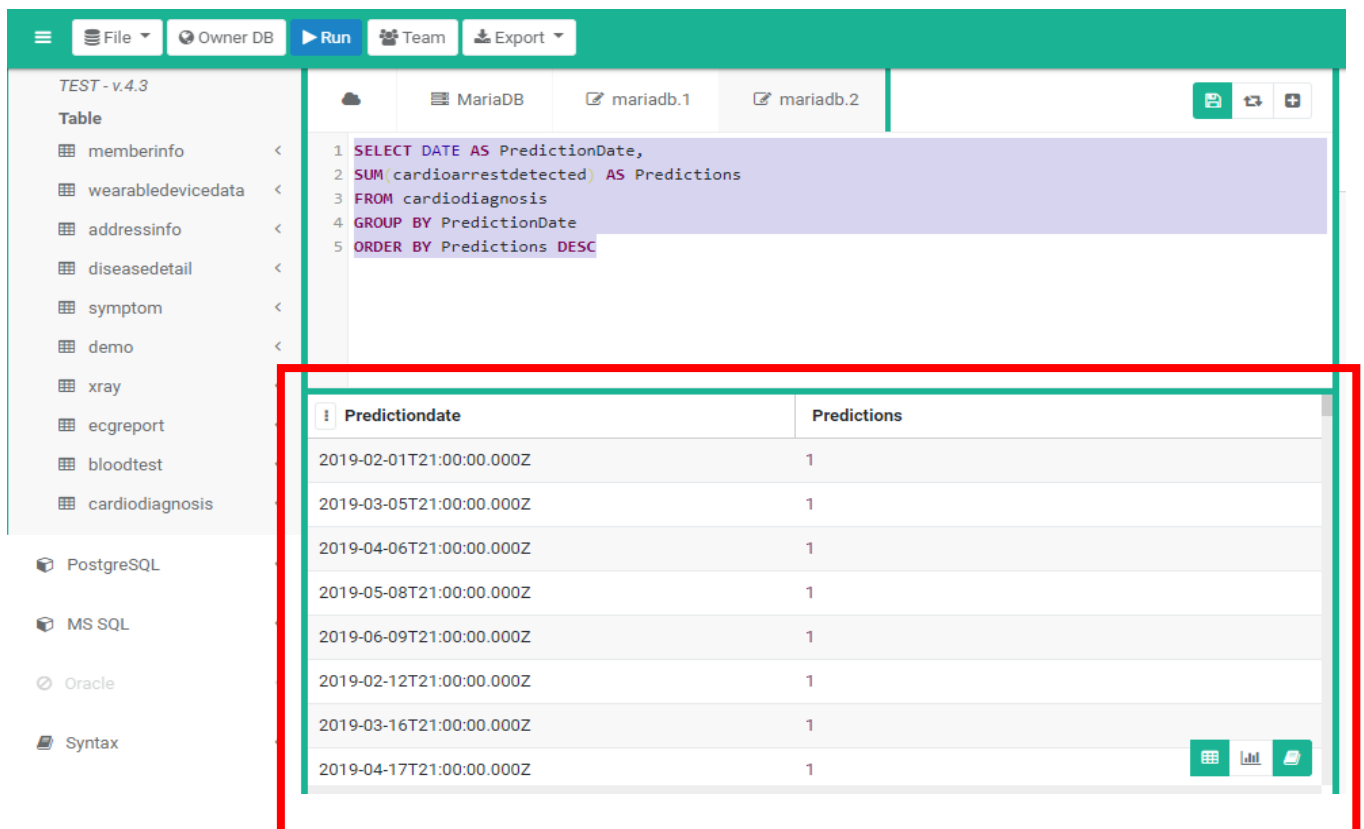
Step-B.9: Open a new Query Editor Tab, and Type the Query given below to get the Predictions day wise and also sort it from Highest to Lowest based in Predictions. Click on Run after writing the query.



The screenshot shows the SkillAssure Query Editor interface. The top bar contains a menu icon, 'File', 'Owner DB', a highlighted 'Run' button, 'Team', and 'Export'. The left sidebar lists various tables: memberinfo, wearabledevicedata, addressinfo, diseasedetail, symptom, demo, xray, ecgreport, bloodtest, and cardiadiagnosis. The main editor area shows the following SQL query:

```
1 SELECT DATE AS PredictionDate,
2 SUM(cardioarrestdetected) AS Predictions
3 FROM cardiadiagnosis
4 GROUP BY PredictionDate
5 ORDER BY Predictions DESC
```

Step-B.10: Observe the Output of the query in the output window after clicking on Run as shown below:

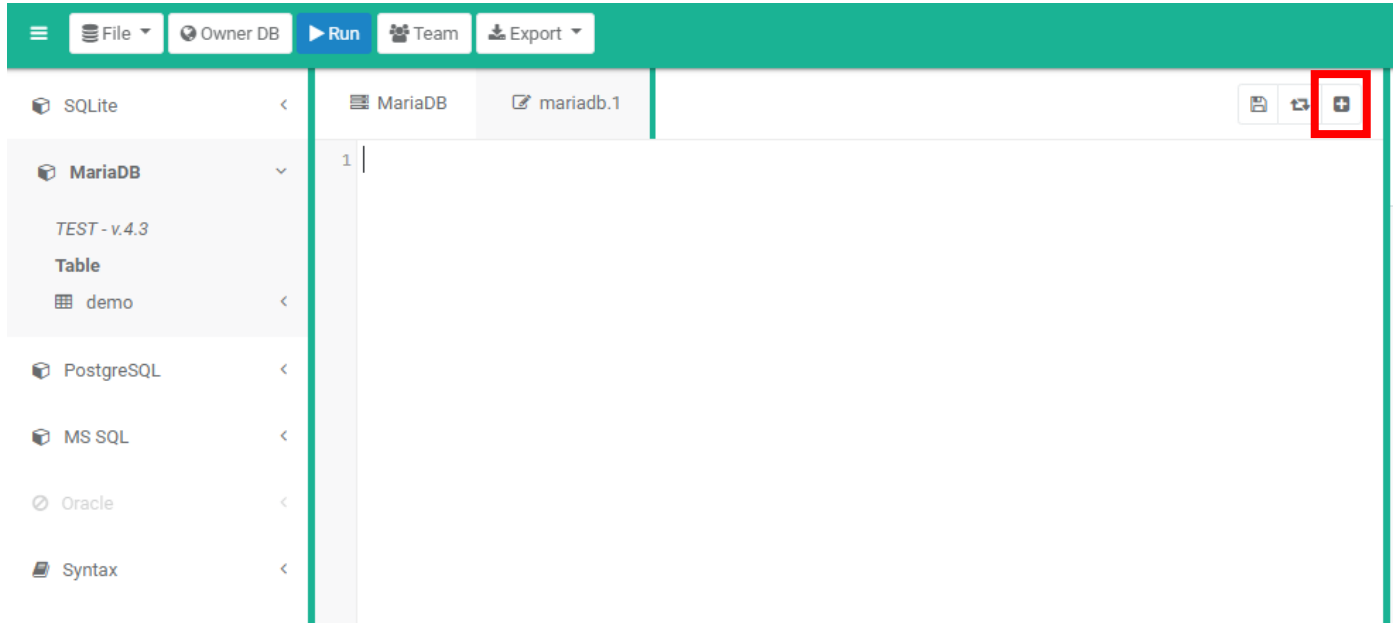


The screenshot shows the SkillAssure Query Editor interface with the same SQL query as in Step-B.9. The 'Run' button is still highlighted. The output window at the bottom is highlighted with a red box, displaying the results of the query in a table format:

Predictiondate	Predictions
2019-02-01T21:00:00.000Z	1
2019-03-05T21:00:00.000Z	1
2019-04-06T21:00:00.000Z	1
2019-05-08T21:00:00.000Z	1
2019-06-09T21:00:00.000Z	1
2019-02-12T21:00:00.000Z	1
2019-03-16T21:00:00.000Z	1
2019-04-17T21:00:00.000Z	1

Activity-C: Get all the members who are from “Flora” city.

Step-C.1: Open a new Query Editor tab in the MariaDB by clicking on the **Plus(+)** button as shown:



Step-C.2: Write the following query in the new query editor and execute the query by clicking the Run button.

```
SELECT * FROM  
memberinfo member INNER JOIN addressinfo address  
ON member.member_id = address.memberinfo_member_id  
WHERE address.city='Flora'.
```

Activity-D: Get the total number of bloodtests done for Aisha.

Step-D.1: Open a new Query Editor tab in the MariaDB by clicking on the **Plus(+)** button.

Step-D.2: Write the following query in the new query editor and execute the query.

```
SELECT count(b.blood_id) FROM  
bloodtest b inner JOIN cardiodiagnosis c  
ON b.cardiodiagnosis_cardio_id = c.cardio_id  
inner JOIN memberinfo m  
ON c.memberinfo_member_id = m.member_id  
WHERE m.firstname='aisha'  
GROUP BY b.blood_id
```

Activity-E: Get the xray details of Ajay whose cardio was done on 26th of Jan 2019.

Step-E.1: Open a new Query Editor tab in the MariaDB by clicking on the **Plus(+)** button.

Step-E.2: Write the following query in the new query editor and execute the query.

```
SELECT x.* FROM xray x  
JOIN cardiodiagnosis c ON x.cardiodiagnosis_cardio_id=c.cardio_id  
JOIN memberinfo m ON c.memberinfo_member_id=m.member_id  
WHERE m.firstname='ajay' AND date(c.date)='2019-01-26'
```

Congratulations!! You have successfully executed queries to fetch the data from the database for HeartiHealth Application.
