Ruchi Jha

The table-

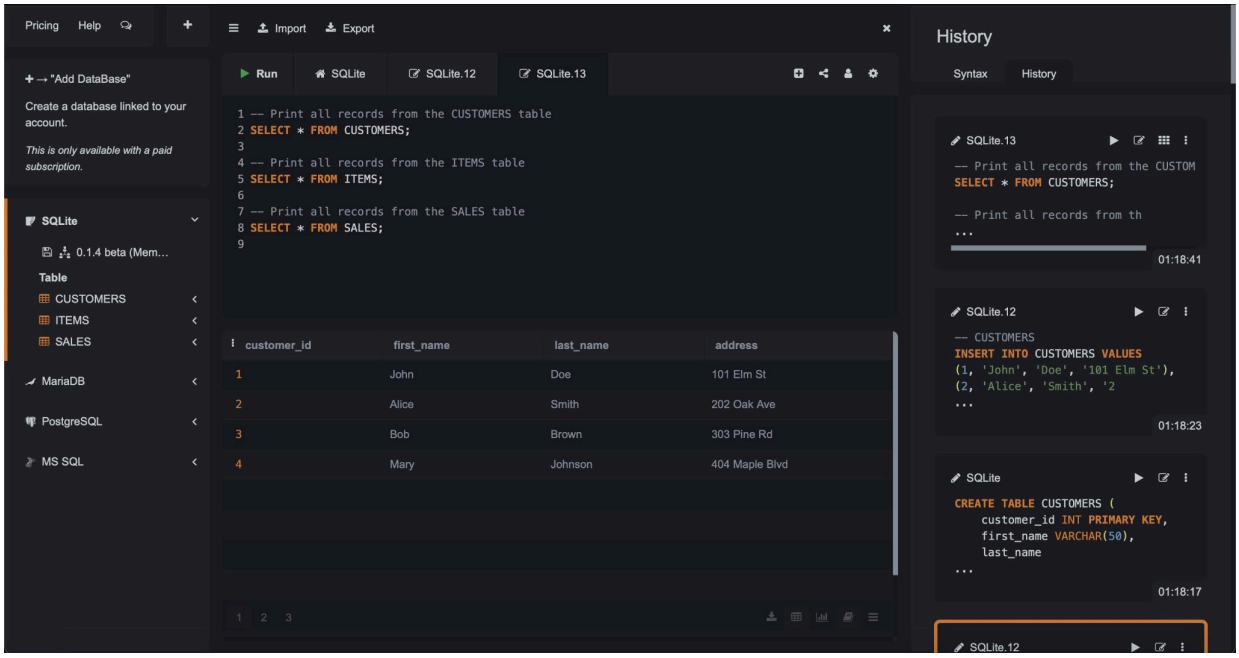
```
CREATE TABLE CUSTOMERS (
    customer_id INT PRIMARY KEY,
    first_name VARCHAR(50),
    last_name VARCHAR(50),
    address VARCHAR(100)
);

CREATE TABLE ITEMS (
    item_id INT PRIMARY KEY,
    item_name VARCHAR(100),
    price DECIMAL(10, 2),
    department VARCHAR(50)
);

CREATE TABLE SALES (
    date DATE,
    order_id INT PRIMARY KEY,
    item_id INT,
    customer_id INT,
    quantity INT,
    revenue DECIMAL(10, 2),
    FOREIGN KEY (item_id) REFERENCES ITEMS(item_id),
    FOREIGN KEY (customer_id) REFERENCES CUSTOMERS(customer_id)
);
```

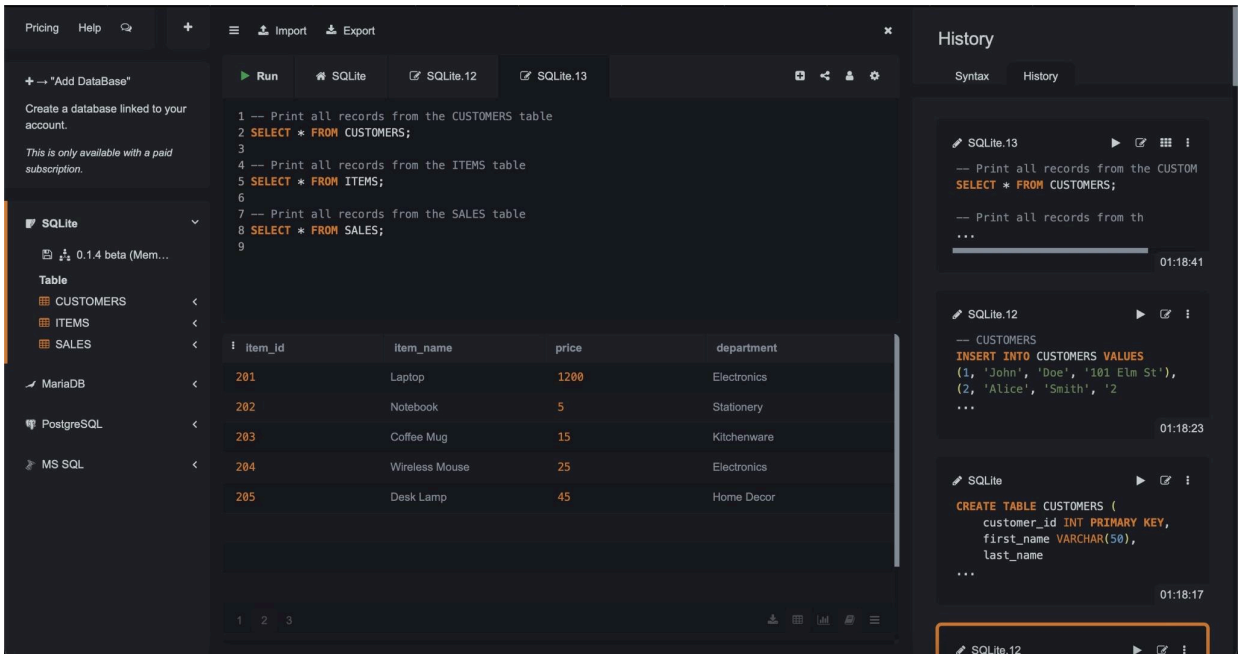
Filling in values-

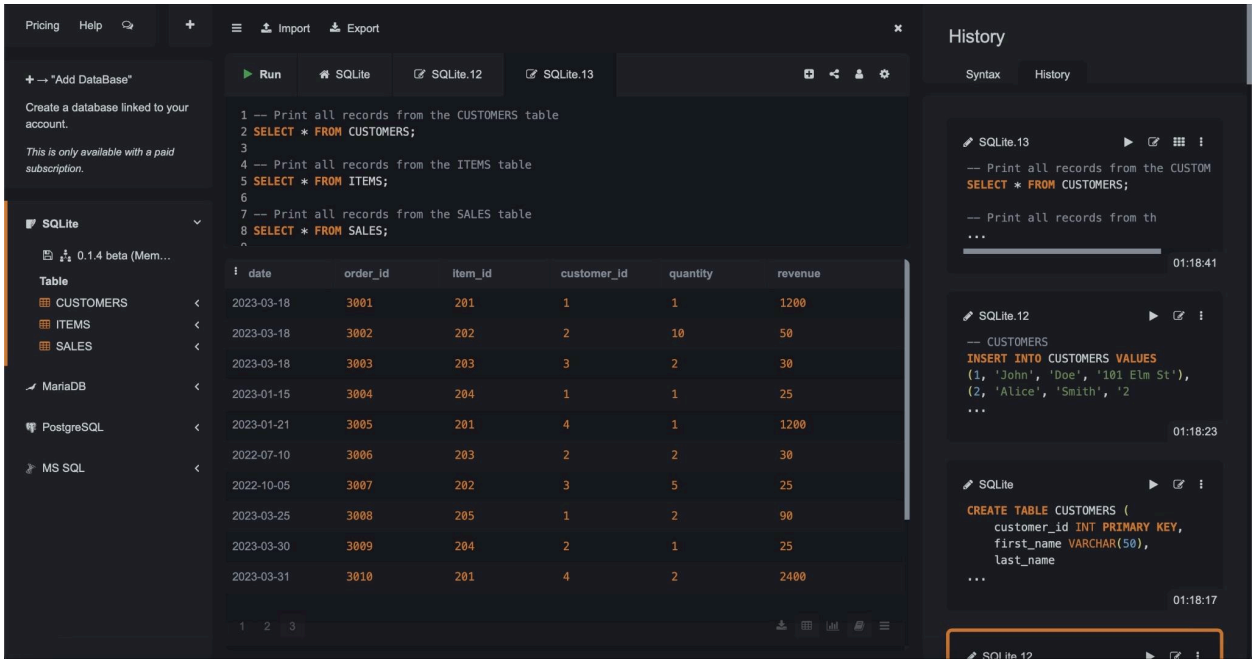
```
-- CUSTOMERS
INSERT INTO CUSTOMERS VALUES
(1, 'John', 'Doe', '101 Elm St'),
(2, 'Alice', 'Smith', '202 Oak Ave'),
(3, 'Bob', 'Brown', '303 Pine Rd'),
(4, 'Mary', 'Johnson', '404 Maple Blvd');

-- ITEMS
INSERT INTO ITEMS VALUES
(201, 'Laptop', 1200.00, 'Electronics'),
(202, 'Notebook', 5.00, 'Stationery'),
(203, 'Coffee Mug', 15.00, 'Kitchenware'),
(204, 'Wireless Mouse', 25.00, 'Electronics'),
(205, 'Desk Lamp', 45.00, 'Home Decor');

-- SALES
```

INSERT INTO SALES VALUES
('2023-03-18', 3001, 201, 1, 1, 1200.00), -- John Doe
('2023-03-18', 3002, 202, 2, 10, 50.00),   -- Alice
('2023-03-18', 3003, 203, 3, 2, 30.00),   -- Bob
('2023-01-15', 3004, 204, 1, 1, 25.00),   -- John Jan purchase
('2023-01-21', 3005, 201, 4, 1, 1200.00), -- Mary Jan purchase
('2022-07-10', 3006, 203, 2, 2, 30.00),   -- Kitchenware < $600
('2022-10-05', 3007, 202, 3, 5, 25.00),   -- Stationery < $600
('2023-03-25', 3008, 205, 1, 2, 90.00),   -- Home Decor
('2023-03-30', 3009, 204, 2, 1, 25.00),   -- Low revenue order
('2023-03-31', 3010, 201, 4, 2, 2400.00); -- Highest revenue order

The tables-



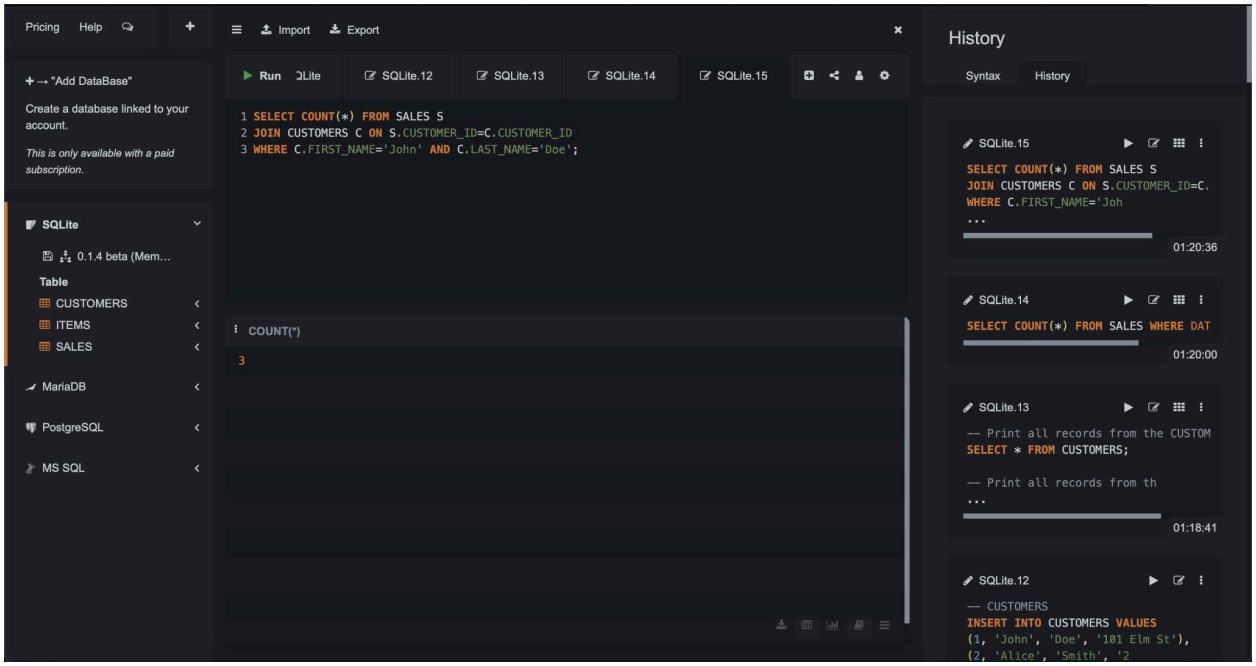




Question 1.Pull total number of orders that were completed on 18th March 2023 with the first name ‘John’ and last name Doe’

Code-

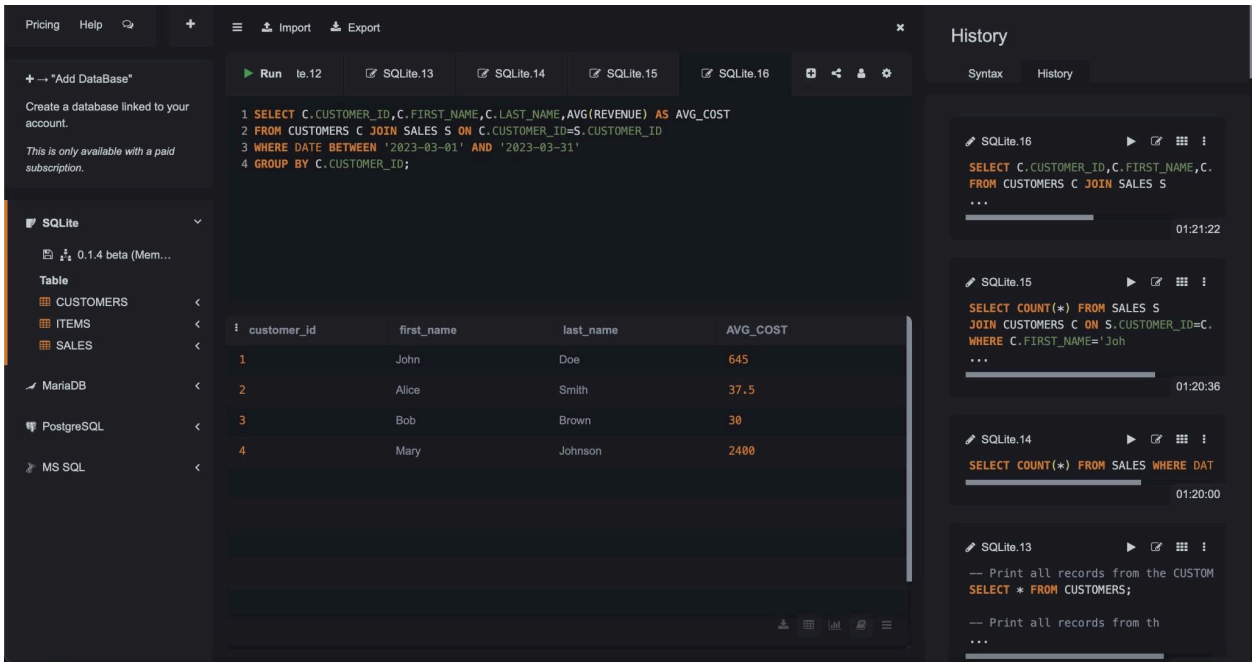
```
SELECT COUNT(*) FROM SALES S
JOIN CUSTOMERS C ON S.CUSTOMER_ID=C.CUSTOMER_ID
WHERE C.FIRST_NAME='John' AND C.LAST_NAME='Doe';
```



Question 2.Pull total number of customers that purchased in January 2023 and the average amount spend per customer

Code-

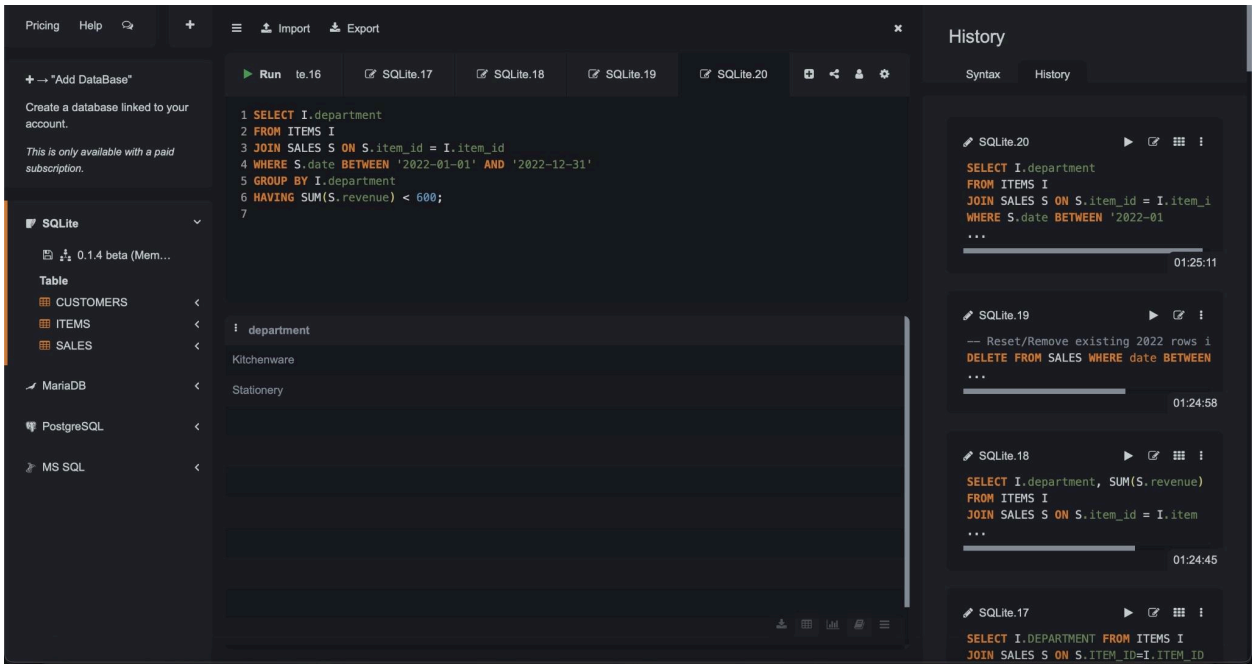
```
SELECT C.CUSTOMER_ID,C.FIRST_NAME,C.LAST_NAME,AVG(REVENUE) AS AVG_COST
FROM CUSTOMERS C JOIN SALES S ON C.CUSTOMER_ID=S.CUSTOMER_ID
WHERE DATE BETWEEN '2023-03-01' AND '2023-03-31'
GROUP BY C.CUSTOMER_ID;
```



Question 3-Pull the departments that generated less than $600 in 2022

Code-

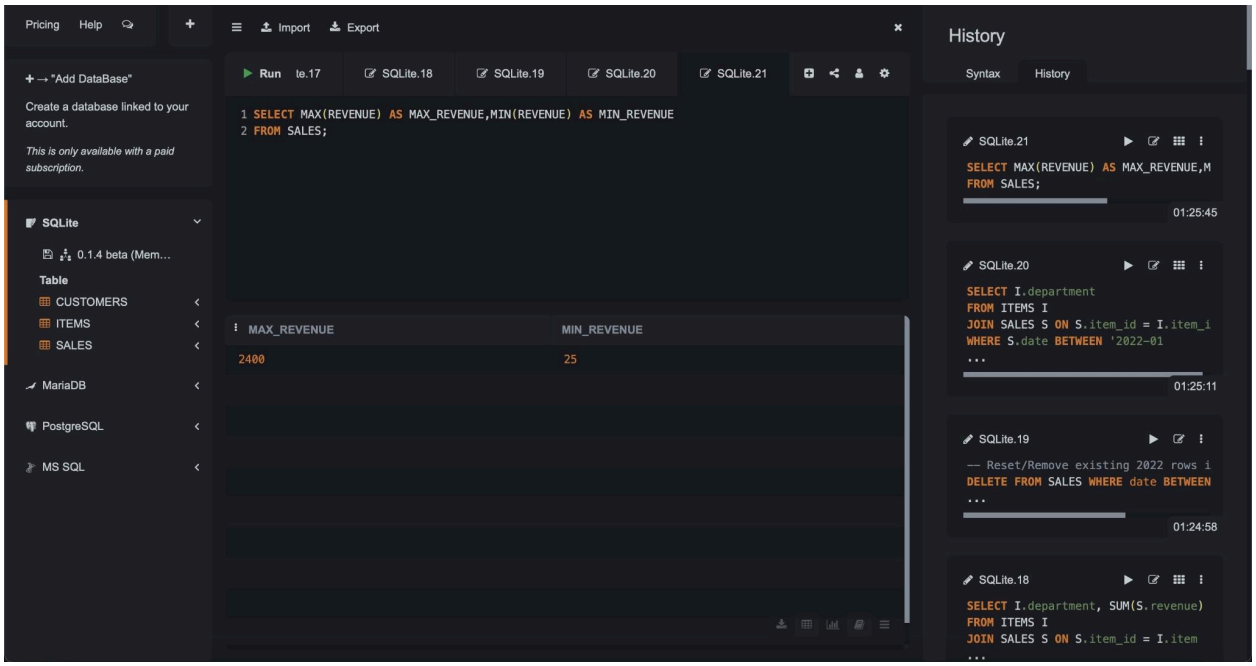
```
SELECT I.DEPARTMENT
FROM ITEMS I
JOIN SALES S ON S.ITEM_ID=I.ITEM_ID
WHERE DATE BETWEEN '2022-01-01' AND '2022-12-31'
GROUP BY I.DEPARTMENT
HAVING SUM(REVENUE)<600;
```



Question 4-What is the most and least revenue we have generated by an order

Code-

```
SELECT MAX(REVENUE) AS MAX_REVENUE,MIN(REVENUE) AS MIN_REVENUE
FROM SALES;
```



Question 6-What were the orders that were purchased in our most lucrative order
Code-

```
SELECT * FROM SALES
WHERE REVENUE=(SELECT MAX(REVENUE) FROM SALES);
```