**Q1. Create the tables for User, Circle, User\_Circle, Messages and User\_Inbox (to be created with help of Triggers)**

**And**

**Q2. Insert the rows into the created tables (User, Circle, User\_Circle, and Messages).**

**a.User\_Table**

create table User(

User\_Name VARCHAR(40) NOT NULL,

User\_ID integer not nULL ,

Password VARCHAR(100) NOT NULL,

Gender CHAR(1) NOT NULL,

Email\_ID VARCHAR(100) NOT NULL,

UserContact integer(10) NOT NULL,

CreatedBy VARCHAR(40) NOT NULL,

Creation\_date DATE,

PRIMARY KEY ( User\_ID)

);

INSERT INTO User values ('Booma',101,'PwdBooma','F','booma@gmail.com',9876543765,'Admin1','2019-03-03');

INSERT INTO User values

('Devi',102,'PwdDevi','F','devi@gmail.com',9652788225,'Admin1','2019-03-03');

INSERT INTO User values

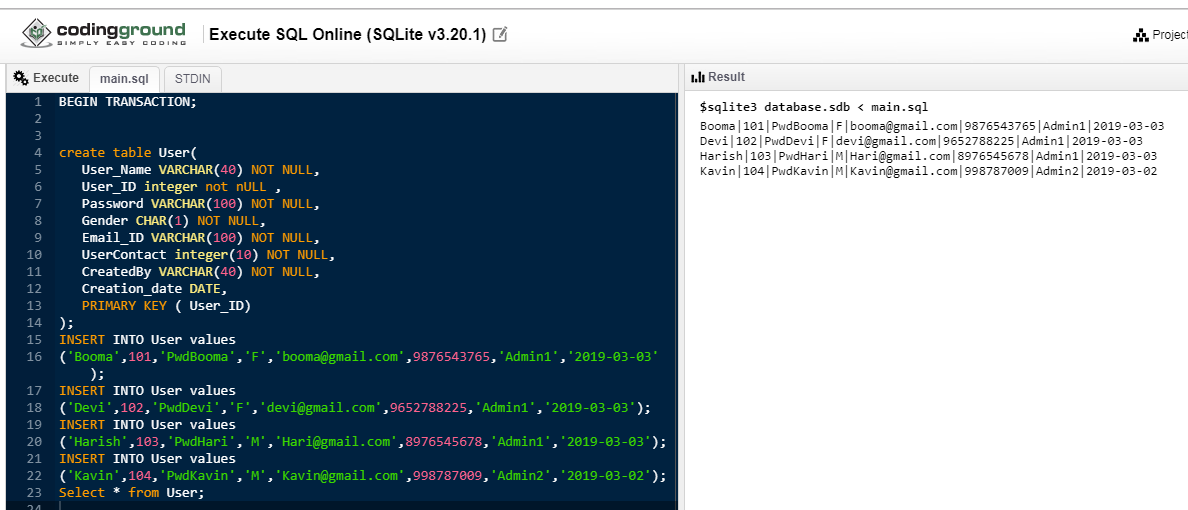
('Harish',103,'PwdHari','M','Hari@gmail.com',8976545678,'Admin1','2019-03-03');

INSERT INTO User values

('Kavin',104,'PwdKavin','M','Kavin@gmail.com',998787009,'Admin2','2019-03-02');

Select \* from User;

**Output:**



**b.Circle\_Table**

create table Circle(

Circle\_Name VARCHAR(40) NOT NULL,

Circle\_ID INT NOT NULL,

CreatedBy VARCHAR(40) NOT NULL,

Creation\_date DATE,

PRIMARY KEY ( Circle\_ID)

);

INSERT INTO Circle values('Circle1','9001','Admin1','2019-03-03');

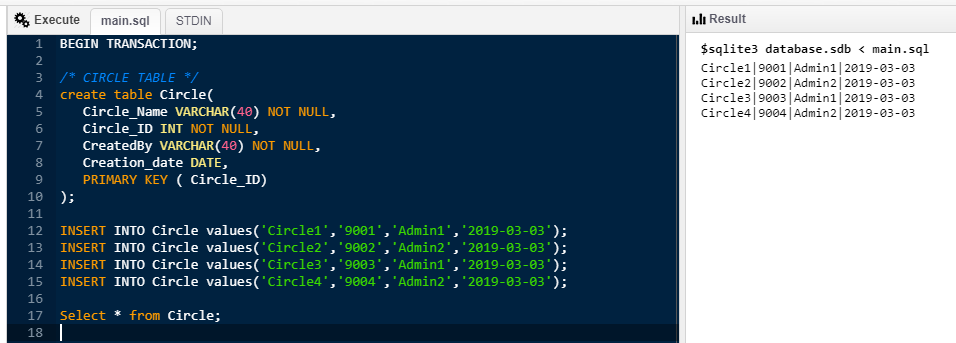
INSERT INTO Circle values('Circle2','9002','Admin2','2019-03-03');

INSERT INTO Circle values('Circle3','9003','Admin1','2019-03-03');

INSERT INTO Circle values('Circle4','9004','Admin2','2019-03-03');

**Output:**

Select \* from Circle;



**c. User\_Circle\_Table**

create table User\_Circle( User\_ID INT NOT NULL, Circle\_ID INT NOT NULL, Subscribe\_Unsubscribe CHAR(1) NOT NULL, FOREIGN KEY (User\_ID) REFERENCES User(User\_ID), FOREIGN KEY (Circle\_ID) REFERENCES Circle(Circle\_ID));

INSERT INTO User\_Circle values('101','9004','Y');

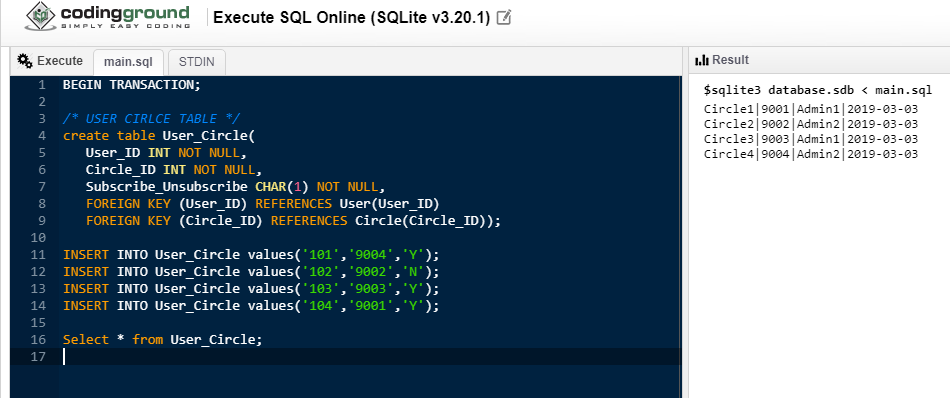
INSERT INTO User\_Circle values('102','9002','N');

INSERT INTO User\_Circle values('103','9003','Y');

INSERT INTO User\_Circle values('104','9001','Y');

**Output:**

Select \* from User\_Circle;



**d. Message\_Table**

create table Message(msgID Varchar primary key, SentByUser\_ID INT NOT NULL, RecByUser\_ID INT,

Msg varchar(200), SentOn date not null, RecOn date not null ,CircleFlag char(1) not null, Circle\_ID INT NOT NULL);

INSERT INTO Message values

('MSG001','101','104','Hi','2019-03-02','2019-03-03','N','');

INSERT INTO Message values

('MSG002','104','103','Hello','2019-03-03','2019-03-04','N','');

INSERT INTO Message values

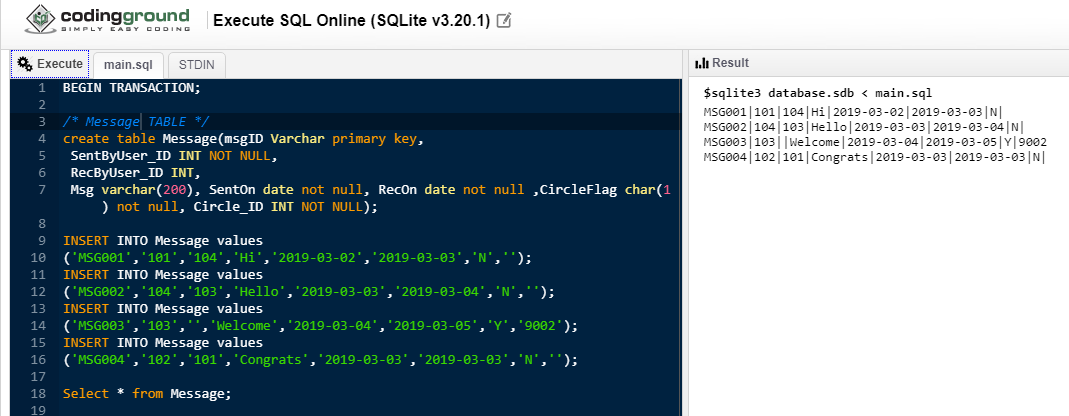
('MSG003','103','','Welcome','2019-03-04','2019-03-05','Y','9002');

INSERT INTO Message values

('MSG004','102','101','Congrats','2019-03-03','2019-03-03','N','');

**Output:**

Select \* from Message;



**e. User Inbox table:**

Create table User\_Inbox(messageId Varchar, Message varchar, From\_user varchar);

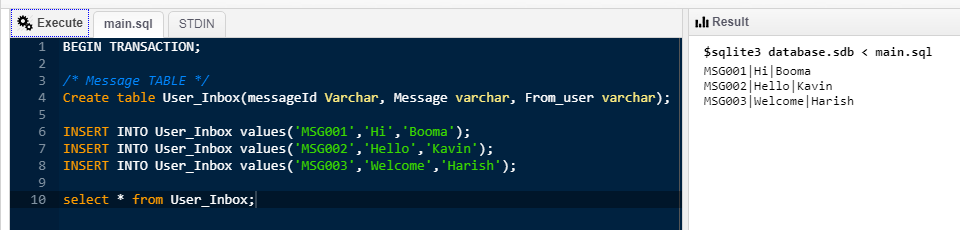
INSERT INTO User\_Inbox values('MSG001','Hi','Booma');

INSERT INTO User\_Inbox values('MSG002','Hello','Kavin');

INSERT INTO User\_Inbox values('MSG003','Welcome','Harish');

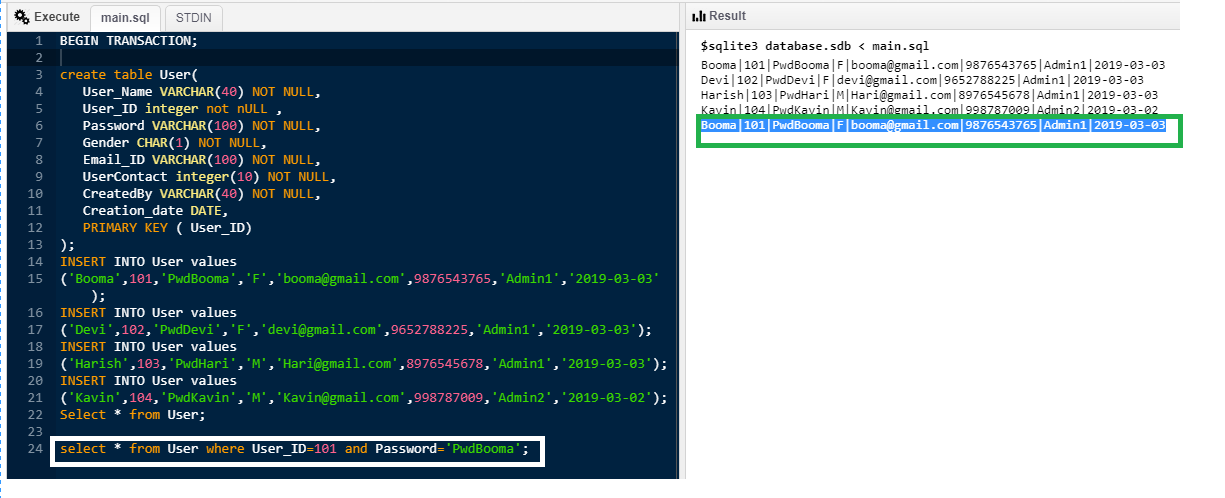
**Output:**

select \* from User\_Inbox;



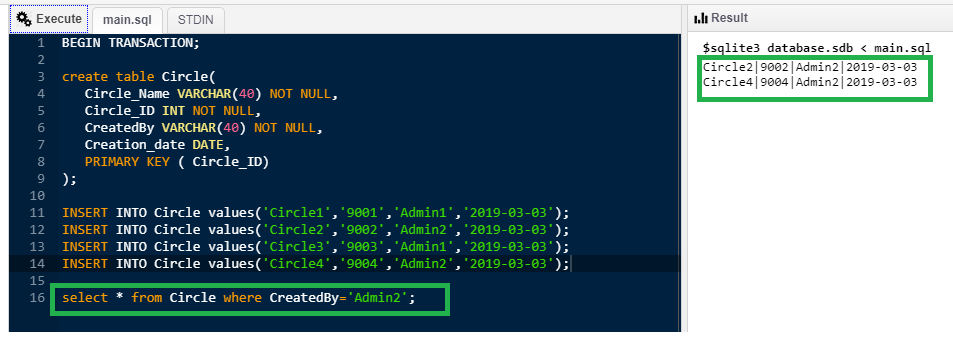
**Q3. Fetch the row from User table based on Id and Password.**

select \* from User where User\_ID=101 and Password='PwdBooma';



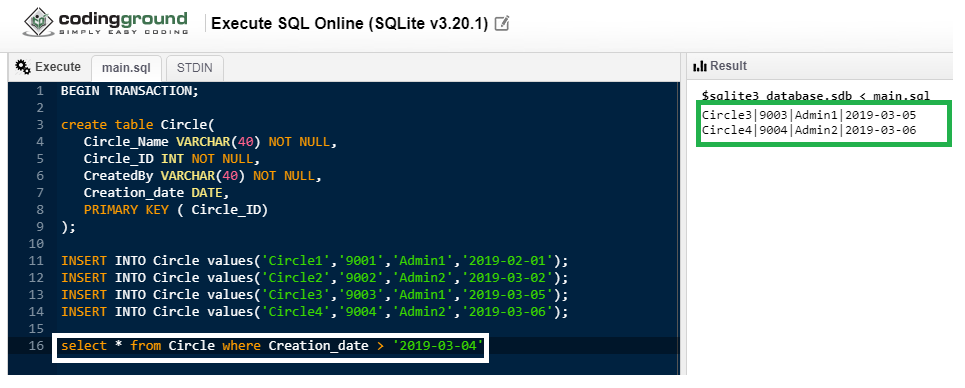
**Q4. Fetch all the rows from Circle table based on the field created\_by.**

select \* from Circle where CreatedBy='Admin2';

****

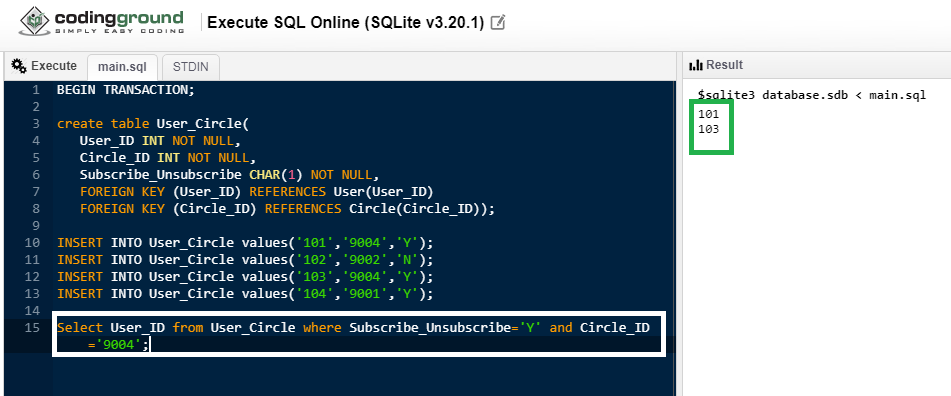
**Q5. Fetch all the Circles created after the particular Date.**

select \* from Circle where Creation\_date > '2019-03-04'



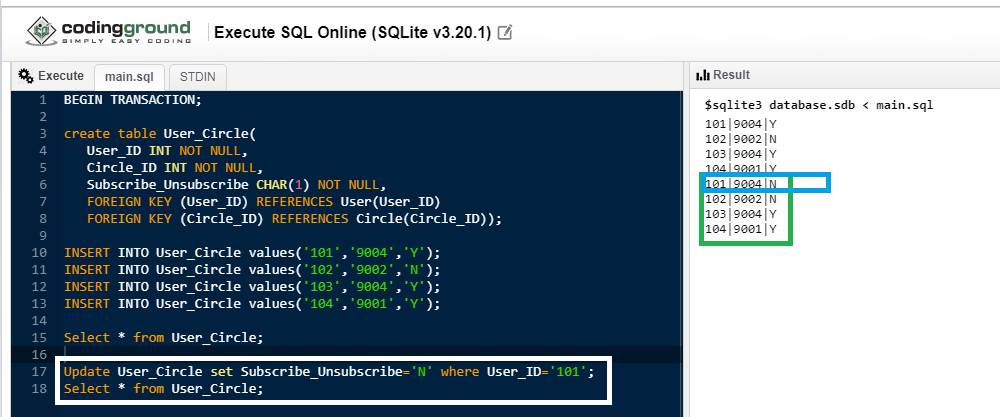
**Q6. Fetch all the User Ids from UserCircle table subscribed to particular Circle.**

Select User\_ID from User\_Circle where Subscribe\_Unsubscribe='Y' and Circle\_ID='9004';



**Q7. Write UpDate query to unsubscribe to particular Circle for the given User Id.**

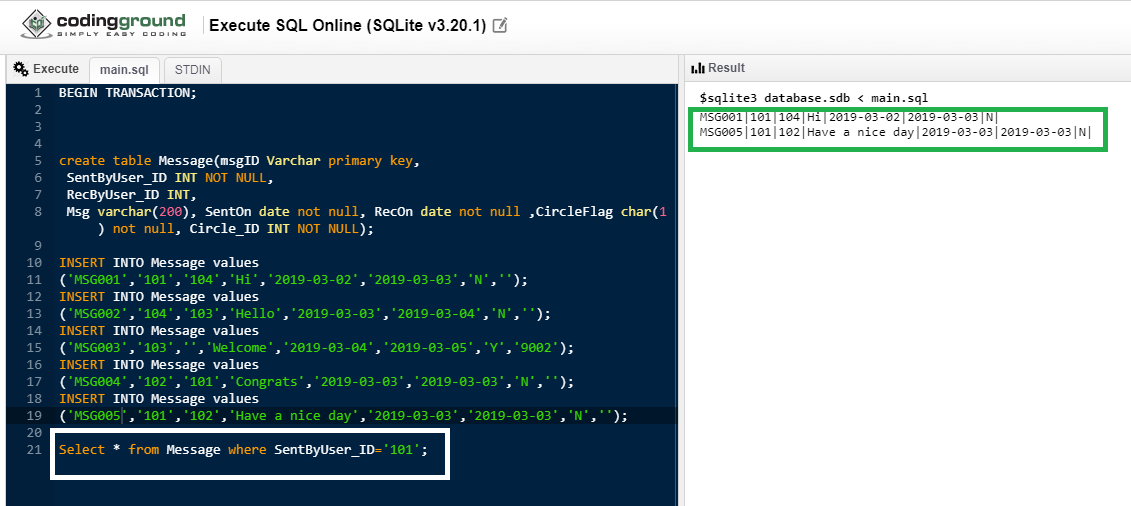
Update User\_Circle set Subscribe\_Unsubscribe='N' where User\_ID='101';

****

**Q8. Fetch all the Messages from the Messages table sent by a particular User**

SQL Query: **Select \* from Message where SentByUser\_ID='101';**

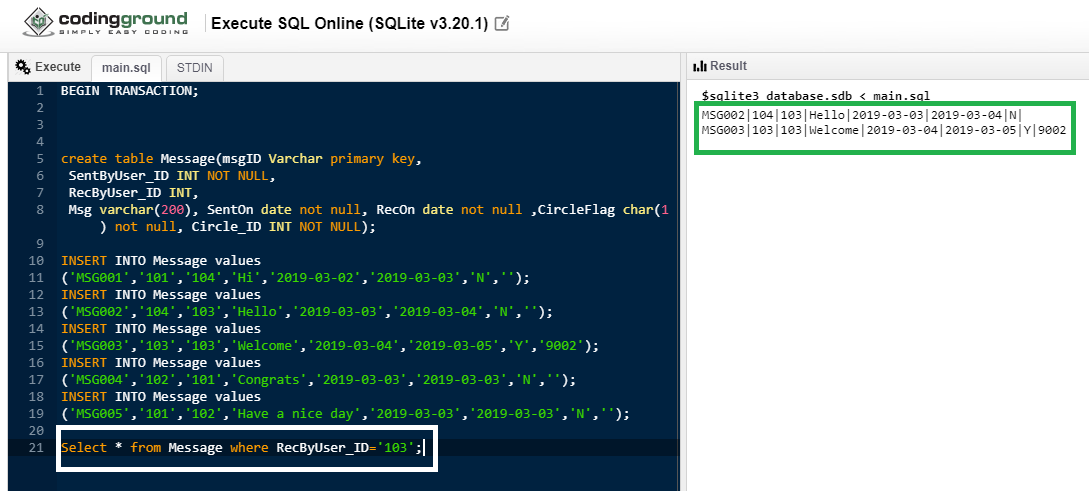
**Output:**

****

**Q9. Fetch all the Messages from the Messages table received by a particular User**

SQL Query: **Select \* from Message where RecByUser\_ID='103';**

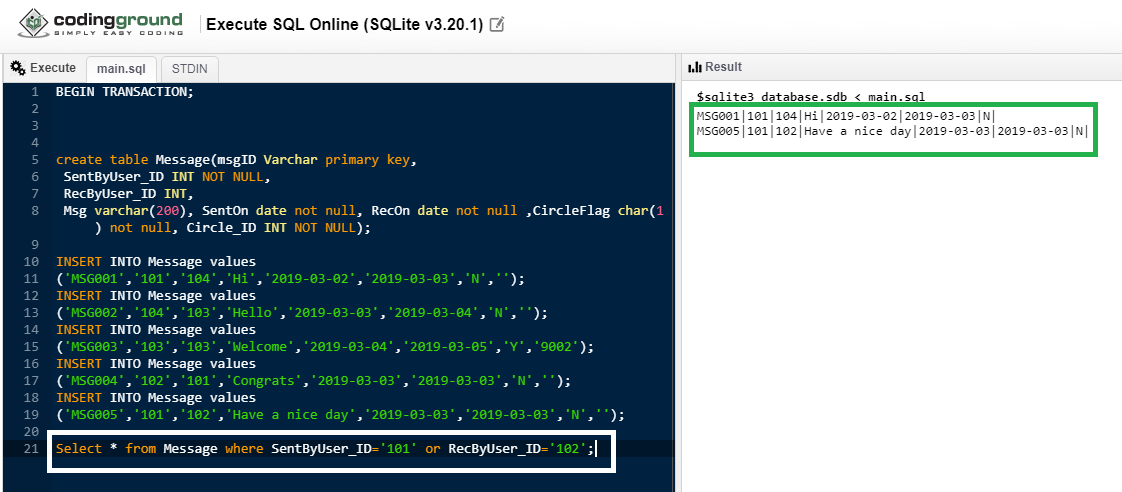
**Output:**

****

**Q10. Fetch all the Messages from the Messages table sent/received by a particular User. (both the Messages)**

**SQL Query:** **Select \* from Message where SentByUser\_ID='101' or RecByUser\_ID='102';**

**Output:**

****

**Q11. Write a query to send Message from particular User to another User (Use Message table - insert statement)**

Message table structure:

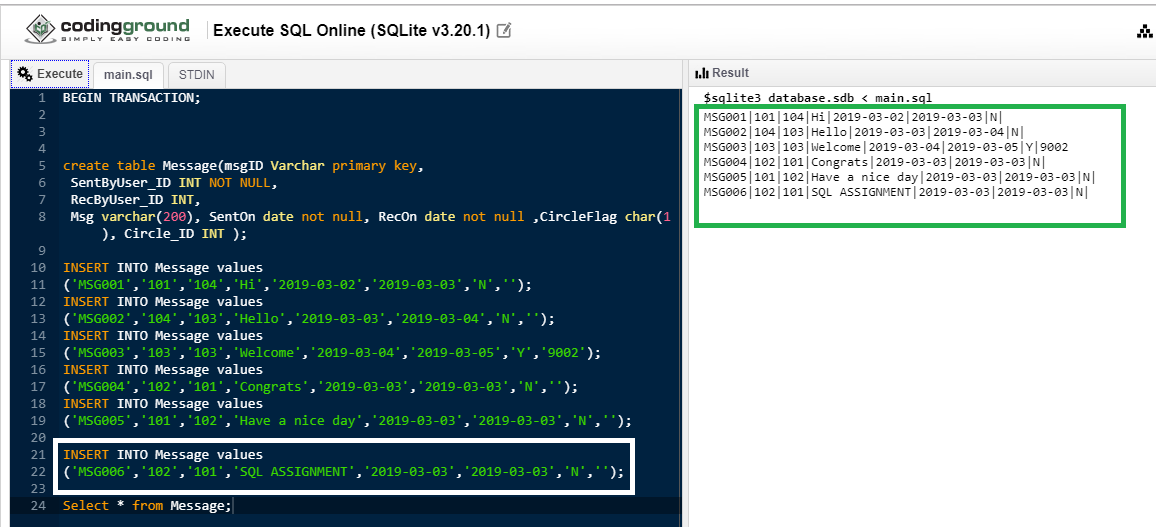
create table Message(msgID Varchar primary key, SentByUser\_ID INT NOT NULL, RecByUser\_ID INT,

Msg varchar(200), SentOn date not null, RecOn date not null ,CircleFlag char(1), Circle\_ID INT );

**SQL Query:**

INSERT INTO Message values ('MSG006','102','101','SQL ASSIGNMENT','2019-03-03','2019-03-03','N','');

**Output:**

****

**Q12. Write a query to send Message from particular User to particular Circle(Use Message table - insert statement)**

create table User\_Circle(

User\_ID INT NOT NULL,

Circle\_ID INT NOT NULL,

Subscribe\_Unsubscribe CHAR(1) NOT NULL,

FOREIGN KEY (User\_ID) REFERENCES User(User\_ID)

FOREIGN KEY (Circle\_ID) REFERENCES Circle(Circle\_ID));

INSERT INTO User\_Circle values('101','9004','Y');

INSERT INTO User\_Circle values('102','9002','N');

INSERT INTO User\_Circle values('103','9004','Y');

INSERT INTO User\_Circle values('104','9001','Y');

Select \* from User\_Circle;

/\*Message Table\*/

create table Message(msgID Varchar primary key,

SentByUser\_ID INT NOT NULL, RecByUser\_ID INT, Msg varchar(200), SentOn date not null, RecOn date not null);

INSERT INTO Message values

('MSG001','101','104','Hi','2019-03-02','2019-03-03');

INSERT INTO Message values

('MSG002','104','103','Hello','2019-03-03','2019-03-04');

INSERT INTO Message values

('MSG003','103','103','Welcome','2019-03-04','2019-03-05');

INSERT INTO Message values

('MSG004','102','101','Congrats','2019-03-03','2019-03-03');

INSERT INTO Message values

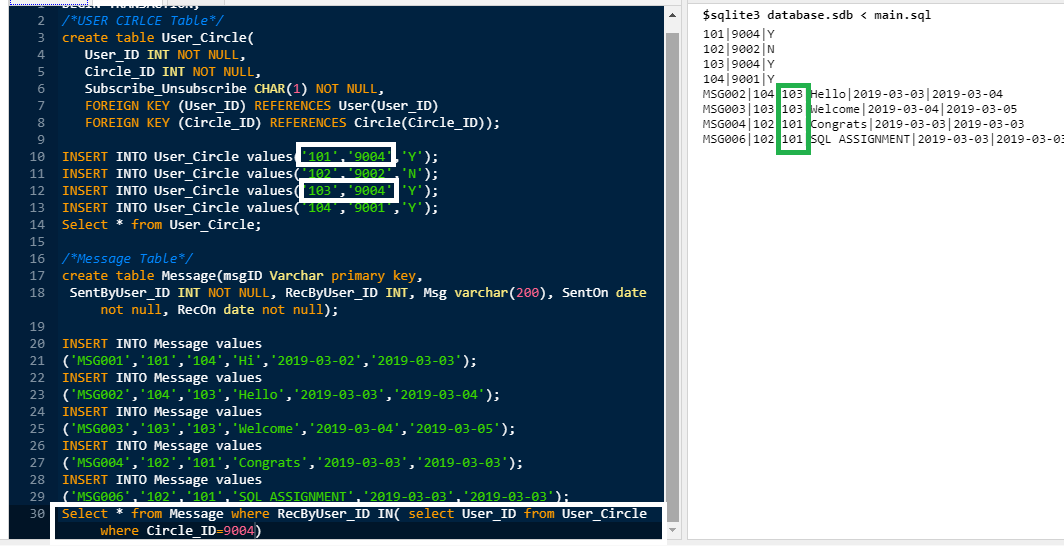
('MSG006','102','101','SQL ASSIGNMENT','2019-03-03','2019-03-03');

Select \* from Message where RecByUser\_ID IN( select User\_ID from User\_Circle where Circle\_ID=’9004’)

SQL Query:

Select \* from Message where **RecByUser\_ID IN**( select User\_ID from User\_Circle where Circle\_ID=’9004’)

Output:



**Q13. Write a query to delete particular Message which you received from User(User Inbox table - delete statement)**

/\* USER INBOX\*/

Create table User\_Inbox(messageId Varchar, Message varchar, From\_user varchar);

INSERT INTO User\_Inbox values('MSG001','Hi','Booma');

INSERT INTO User\_Inbox values('MSG002','Hello','Kavin');

INSERT INTO User\_Inbox values('MSG003','Welcome','Harish');

INSERT INTO User\_Inbox values('MSG004','Have a good day!!!','Swetha');

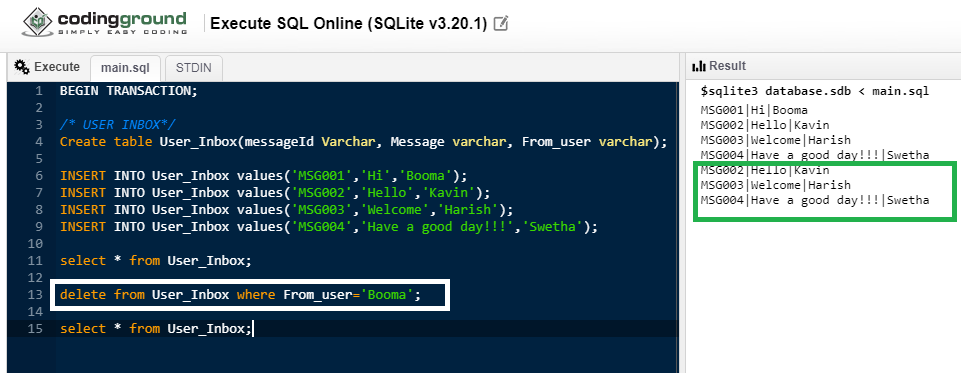
select \* from User\_Inbox;

delete from User\_Inbox where From\_user='Booma';

select \* from User\_Inbox;

**SQL Query:** DELETE FROM USER\_INBOX WHERE FROM\_USER='BOOMA';

**Output:**

****

**Q14. Write a query to delete particular Message which you received from particular Circle(User Inbox table - delete statement)**

Delete FROM [User\_Inbox] WHERE From\_user IN(SELECT circle FROM CIRCLE WHERE CIRCLE='circle2')

BEGIN TRANSACTION;

create table Circle(

Circle\_Name VARCHAR(40) NOT NULL,

Circle\_ID INT NOT NULL,

CreatedBy VARCHAR(40) NOT NULL,

Creation\_date DATE,

PRIMARY KEY ( Circle\_ID)

);

INSERT INTO Circle values('Circle1','9001','Admin1','2019-03-03');

INSERT INTO Circle values('Circle2','9002','Admin2','2019-03-03');

INSERT INTO Circle values('Circle3','9003','Admin1','2019-03-03');

INSERT INTO Circle values('Circle4','9004','Admin2','2019-03-03');

Select \* from Circle;

/\* USER INBOX\*/

Create table User\_Inbox(messageId Varchar, Message varchar, From\_user varchar);

INSERT INTO User\_Inbox values('MSG001','Hi','Booma');

INSERT INTO User\_Inbox values('MSG002','Hello','Kavin');

INSERT INTO User\_Inbox values('MSG003','Welcome','Harish');

INSERT INTO User\_Inbox values('MSG004','Have a good day!!!','Swetha');

select \* from User\_Inbox;

**Query for the question:**

**delete from User\_Inbox where From\_user='Booma';**

**Delete FROM User\_Inbox WHERE From\_user IN(SELECT Circle\_ID FROM Circle WHERE Circle\_Name='Circle2');**

select \* from User\_Inbox;