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Expt: 3

TCL Commands

BEGIN TRANSACTION;

CREATE TABLE emp(employee\_id int , employee\_name text, age int , gender text , shift char);

INSERT INTO emp VALUES(1,'bob',23,'male','e');

INSERT INTO emp VALUES(2,'julia',25,'female','m');

INSERT INTO emp VALUES(3,'johnathon',31,'male','e');

INSERT INTO emp VALUES(4,'alice',20,'female','m');

INSERT INTO emp VALUES(5,'rick',32,'male','e');

INSERT INTO emp VALUES(6,'stacy',27,'female','m');

COMMIT;

UPDATE emp SET employee\_name = 'michael' where employee\_id = 3 ;

SAVEPOINT A;

UPDATE emp SET age = 24 where employee\_id = 4 ;

SAVEPOINT B;

INSERT INTO emp VALUES(7,'mike',22,'male','e');

SAVEPOINT C;

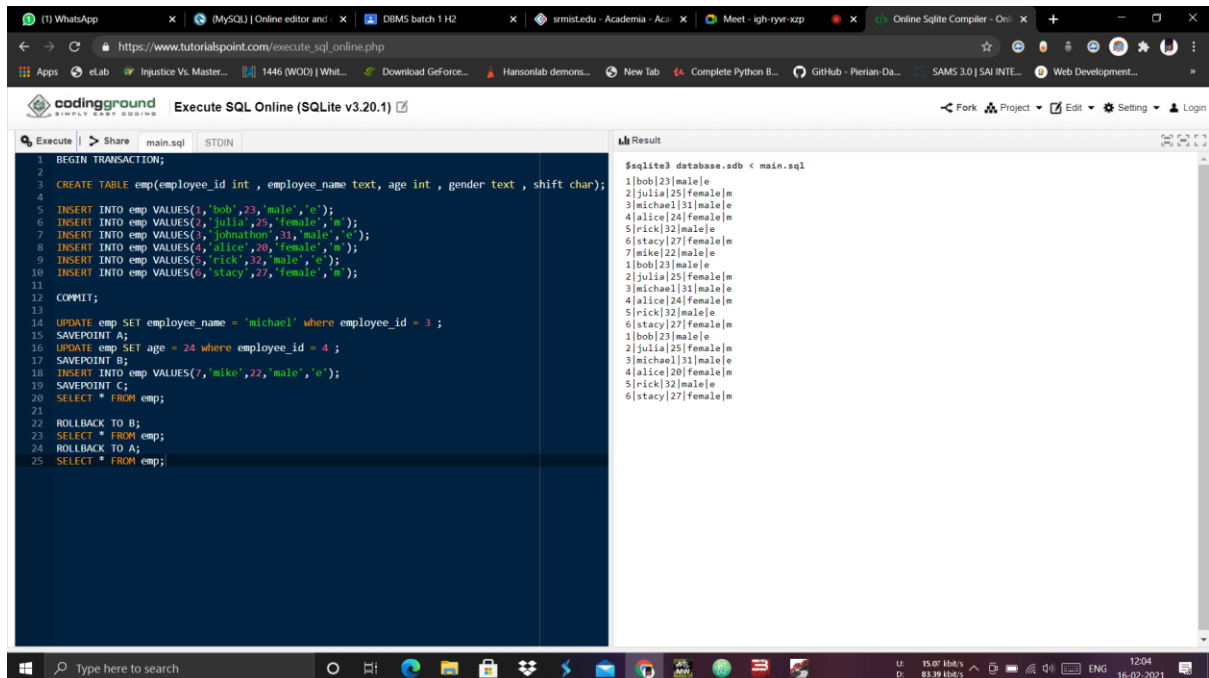
SELECT \* FROM emp;

ROLLBACK TO B;

SELECT \* FROM emp;

ROLLBACK TO A;

SELECT \* FROM emp;



```
1 BEGIN TRANSACTION;
2
3 CREATE TABLE emp(employee_id int, employee_name text, age int, gender text, shift char);
4
5 INSERT INTO emp VALUES(1, 'bob', 23, 'male', 'e');
6 INSERT INTO emp VALUES(2, 'julia', 25, 'female', 'e');
7 INSERT INTO emp VALUES(3, 'johnathon', 31, 'male', 'e');
8 INSERT INTO emp VALUES(4, 'alice', 20, 'female', 'e');
9 INSERT INTO emp VALUES(5, 'rick', 32, 'male', 'e');
10 INSERT INTO emp VALUES(6, 'stacy', 27, 'female', 'e');
11
12 COMMIT;
13
14 UPDATE emp SET employee_name = 'michael' where employee_id = 3 ;
15 SAVEPOINT A;
16 UPDATE emp SET age = 24 where employee_id = 4 ;
17 SAVEPOINT B;
18 INSERT INTO emp VALUES(7, 'mike', 22, 'male', 'e');
19 SAVEPOINT C;
20 SELECT * FROM emp;
21
22 ROLLBACK TO B;
23 SELECT * FROM emp;
24 ROLLBACK TO A;
25 SELECT * FROM emp;
```

Result

```
$sqlite3 database.sdb < main.sql
1|bob|23|male|e
2|julia|25|female|m
3|michael|31|male|m
4|alice|24|female|m
5|rick|32|male|m
6|stacy|27|female|m
7|mike|22|male|m
1|bob|23|male|m
2|julia|25|female|m
3|michael|31|male|m
4|alice|24|female|m
5|rick|32|male|m
6|stacy|27|female|m
1|bob|23|male|m
2|julia|25|female|m
3|michael|31|male|m
4|alice|20|female|m
5|rick|32|male|m
6|stacy|27|female|m
```

SQL Commands:

CREATE TABLE reviews(id int, book\_id int, reviewer\_name text , content text , rating int , published\_date text);

INSERT INTO reviews VALUES(1,1,'john smith','my first review',4,'2017-12-10');

INSERT INTO reviews VALUES(2,2,'john smith','my second review',5,'2017-10-13');

INSERT INTO reviews VALUES(3,2,'alice walker','another review',1,'2017-10-22' );

CREATE TABLE books(id int, title text, author text , published\_date text , isbn bigint);

INSERT INTO books VALUES(1,'my first sql book','mary parker','2012-02-22',981483029127);

INSERT INTO books VALUES(2,'my second sql book','john mayer','1972-07-03',857300923713);

INSERT INTO books VALUES(3,'my third sql book','cary flint','2015-10-18',523120967812);

SELECT id, book\_id , reviewer\_name as r\_name , content , rating , published\_date as p\_date FROM reviews;

```
SELECT id ,title , author , published_date as p_date , isbn FROM books;
```

```
SELECT reviews.book_id, reviews.published_date , reviews.content, reviews.rating, books.id, books.title, books.author FROM reviews RIGHT JOIN books ON reviews.book_id = books.id;
```

```
SELECT reviews.book_id, reviews.content, reviews.reviewer_name ,reviews.rating, reviews.published_date, books.id, books.title, books.author ,books.published_date, books.isbn FROM reviews INNER JOIN books ON reviews.id = books.id;
```

```
SELECT reviews.book_id, reviews.content, reviews.reviewer_name ,reviews.rating, reviews.published_date, books.id, books.title, books.author ,books.published_date, books.isbn FROM reviews RIGHT JOIN books ON reviews.book_id = books.id UNION
```

```
SELECT reviews.book_id, reviews.content, reviews.reviewer_name ,reviews.rating, reviews.published_date, books.id, books.title, books.author ,books.published_date, books.isbn FROM reviews LEFT JOIN books ON reviews.book_id = books.id;
```

The screenshot shows the Paiza.io MySQL Online editor interface. The top bar includes the Paiza.io logo, navigation links (New code, Recent code, WebDev), and user options (English, Sign Up, Sign In). The main editor area contains the following SQL code:

```
1 CREATE TABLE reviews(id int, book_id int, reviewer_name text , content text , rating int , published_date text);
2 INSERT INTO reviews VALUES(1,1, 'john smith', 'my first review', 4, '2017-12-10');
3 INSERT INTO reviews VALUES(2,2, 'john smith', 'my second review', 5, '2017-10-13');
4 INSERT INTO reviews VALUES(3,3, 'alice walker', 'another review', 1, '2017-10-22');
5
6 CREATE TABLE books(id int, title text, author text , published_date text , isbn bigint);
7 INSERT INTO books VALUES(1, 'my first sql book', 'mary parker', '2012-02-22', 981483029127);
8 INSERT INTO books VALUES(2, 'my second sql book', 'john mayer', '1972-07-03', 857300923713);
9 INSERT INTO books VALUES(3, 'my third sql book', 'cary flint', '2015-10-18', 523120967812);
```

The output section shows the results of the SQL queries. The first query returns the contents of the 'books' table. The second query returns the contents of the 'reviews' table. The third query returns the results of an inner join between 'reviews' and 'books'. The fourth query returns the results of a right join between 'reviews' and 'books'. The fifth query returns the results of a left join between 'reviews' and 'books'.

id	book_id	r_name	content	rating	p_date
1	1	john smith	my first review	4	2017-12-10
2	2	john smith	my second review	5	2017-10-13
3	2	alice walker	another review	1	2017-10-22

id	title	author	p_date	isbn
1	my first sql book	mary parker	2012-02-22	981483029127
2	my second sql book	john mayer	1972-07-03	857300923713
3	my third sql book	cary flint	2015-10-18	523120967812

book_id	published_date	content	rating	id	title	author
1	2017-12-10	my first review	4	1	my first sql book	mary parker
2	2017-10-22	another review	1	2	my second sql book	john mayer
2	2017-10-13	my second review	5	2	my second sql book	john mayer
NULL	NULL	NULL	3	3	my third sql book	cary flint

book_id	content	reviewer_name	rating	published_date	id	title	author	published_date	isbn
1	my first review	john smith	4	2017-12-10	1	my first sql book	mary parker	2012-02-22	981483029127
2	my second review	john smith	5	2017-10-13	2	my second sql book	john mayer	1972-07-03	857300923713
2	another review	alice walker	1	2017-10-22	3	my third sql book	cary flint	2015-10-18	523120967812

book_id	content	reviewer_name	rating	published_date	id	title	author	published_date	isbn
1	my first review	john smith	4	2017-12-10	1	my first sql book	mary parker	2012-02-22	981483029127
2	another review	alice walker	1	2017-10-22	2	my second sql book	john mayer	1972-07-03	857300923713
2	my second review	john smith	5	2017-10-13	2	my second sql book	john mayer	1972-07-03	857300923713
NULL	NULL	NULL	3	2017-10-18	3	my third sql book	cary flint	2015-10-18	523120967812