

R Notebook

Connecting to the sakila database

```
library(RSQLite)
dbcon <- dbConnect(RSQLite::SQLite(), "sakila.db")
```

View the Payment Table

```
SELECT * FROM PAYMENT
```

Table 1: Displaying records 1 - 10

| payment_id | customer_id | staff_id | rental_id | amount | payment_date | last_update |
|------------|-------------|----------|-----------|--------|---------------------|---------------------|
| 1 | 1 | 1 | 76 | 2.99 | 2005-05-25 11:30:37 | 2006-02-15 22:12:30 |
| 2 | 1 | 1 | 573 | 0.99 | 2005-05-28 10:35:23 | 2006-02-15 22:12:30 |
| 3 | 1 | 1 | 1185 | 5.99 | 2005-06-15 00:54:12 | 2006-02-15 22:12:30 |
| 4 | 1 | 2 | 1422 | 0.99 | 2005-06-15 18:02:53 | 2006-02-15 22:12:30 |
| 5 | 1 | 2 | 1476 | 0.00 | 2005-06-15 21:08:46 | 2006-02-15 22:12:30 |
| 6 | 1 | 1 | 1725 | 4.99 | 2005-06-16 15:18:57 | 2006-02-15 22:12:30 |
| 7 | 1 | 1 | 2308 | 4.99 | 2005-06-18 08:41:48 | 2006-02-15 22:12:30 |
| 8 | 1 | 2 | 2363 | 0.99 | 2005-06-18 13:33:59 | 2006-02-15 22:12:30 |
| 9 | 1 | 1 | 3284 | 3.99 | 2005-06-21 06:24:45 | 2006-02-15 22:12:30 |
| 10 | 1 | 2 | 4040 | 18.88 | 2005-07-08 03:17:05 | 2006-02-15 22:12:30 |

Transaction 1 begins

```
BEGIN TRANSACTION;
```

Updating the amount in the payment table

```
UPDATE PAYMENT
SET AMOUNT = AMOUNT + 0.99
WHERE PAYMENT_ID = 10
```

Updating the rental_id

```
UPDATE PAYMENT
SET RENTAL_ID = 4040
WHERE PAYMENT_ID = 10
```

Committing the transaction

```
COMMIT TRANSACTION;
```

Testing if the transaction works

```
SELECT * FROM PAYMENT;
```

Table 2: Displaying records 1 - 10

| payment_id | customer_id | staff_id | rental_id | amount | payment_date | last_update |
|------------|-------------|----------|-----------|--------|---------------------|---------------------|
| 1 | 1 | 1 | 76 | 2.99 | 2005-05-25 11:30:37 | 2006-02-15 22:12:30 |
| 2 | 1 | 1 | 573 | 0.99 | 2005-05-28 10:35:23 | 2006-02-15 22:12:30 |
| 3 | 1 | 1 | 1185 | 5.99 | 2005-06-15 00:54:12 | 2006-02-15 22:12:30 |
| 4 | 1 | 2 | 1422 | 0.99 | 2005-06-15 18:02:53 | 2006-02-15 22:12:30 |
| 5 | 1 | 2 | 1476 | 0.00 | 2005-06-15 21:08:46 | 2006-02-15 22:12:30 |
| 6 | 1 | 1 | 1725 | 4.99 | 2005-06-16 15:18:57 | 2006-02-15 22:12:30 |
| 7 | 1 | 1 | 2308 | 4.99 | 2005-06-18 08:41:48 | 2006-02-15 22:12:30 |
| 8 | 1 | 2 | 2363 | 0.99 | 2005-06-18 13:33:59 | 2006-02-15 22:12:30 |
| 9 | 1 | 1 | 3284 | 3.99 | 2005-06-21 06:24:45 | 2006-02-15 22:12:30 |
| 10 | 1 | 2 | 4040 | 19.87 | 2005-07-08 03:17:05 | 2006-02-15 22:12:30 |

Transaction 2 begins

```
BEGIN TRANSACTION
```

Updating the amount for a payment id where the particular id does not exist(query to fail the transaction)

```
UPDATE PAYMENT  
SET AMOUNT = AMOUNT + 1.00  
WHERE PAYMENT_ID = 107890
```

Rollback the transaction

```
ROLLBACK TRANSACTION;
```

Checking if any changes were made in the table

Output - shows 0 rows hence the transaction rolled back

```
SELECT * FROM PAYMENT WHERE PAYMENT_ID=107890
```

Table 3: 0 records

| payment_id | customer_id | staff_id | rental_id | amount | payment_date | last_update |
|------------|-------------|----------|-----------|--------|--------------|-------------|
|------------|-------------|----------|-----------|--------|--------------|-------------|

Disconnect the database connection

```
dbDisconnect(dbcon)
```