Lab 10

AUTHOR
Breyonne Williams

Setup

```
library(RSQLite)
library(DBI)

con <- dbConnect(SQLite(), ":memory:")

actor <- read.csv("https://raw.githubusercontent.com/ivanceras/sakila/master/csv-sakila-
rental <- read.csv("https://raw.githubusercontent.com/ivanceras/sakila/master/csv-sakila
customer <- read.csv("https://raw.githubusercontent.com/ivanceras/sakila/master/csv-saki
payment <- read.csv("https://raw.githubusercontent.com/ivanceras/sakila/master/csv-sakil

dbWriteTable(con, "actor", actor)
dbWriteTable(con, "rental", rental)
dbWriteTable(con, "customer", customer)
dbWriteTable(con, "payment", payment)

dbListTables(con)
```

```
[1] "actor"    "customer" "payment"  "rental"
```

Exercise 1

```
SELECT actor_id, first_name, last_name
FROM actor
ORDER BY last_name, first_name
```

Displaying records 1 - 10

actor_id	first_name	last_name
58	CHRISTIAN	AKROYD
182	DEBBIE	AKROYD
92	KIRSTEN	AKROYD
118	CUBA	ALLEN
145	KIM	ALLEN
194	MERYL	ALLEN
76	ANGELINA	ASTAIRE
112	RUSSELL	BACALL
190	AUDREY	BAILEY
67	JESSICA	BAILEY

Exercise 2

```
SELECT actor_id, first_name, last_name
FROM actor
WHERE last_name IN ('WILLIAMS, DAVIS')
```

0 records

actor_id	first_name	last_name

Exercise 3

```
SELECT DISTINCT customer_id
FROM rental
WHERE DATE (rental_date) = '2005-07-05'
```

Displaying records 1 - 10

customer_id
565
242
37
60
594
8
490
476
322
298

Exercise 4

```
SELECT * FROM payment
WHERE amount IN (1.99, 7.99, 9.99);

SELECT * FROM payment
WHERE amount > 5;

SELECT * FROM payment
WHERE amount > 5 AND amount < 8;
```

Displaying records 1 - 10

payment_id	customer_id	staff_id	rental_id	amount	payment_date
16050	269	2	7	1.99	2007-01-24 21:40:19.996577
16056	270	1	193	1.99	2007-01-26 05:10:14.996577
16081	282	2	48	1.99	2007-01-25 04:49:12.996577
16103	294	1	595	1.99	2007-01-28 12:28:20.996577
16133	307	1	614	1.99	2007-01-28 14:01:54.996577
16158	316	1	1065	1.99	2007-01-31 07:23:22.996577
16160	318	1	224	9.99	2007-01-26 08:46:53.996577
16161	319	1	15	9.99	2007-01-24 23:07:48.996577
16180	330	2	967	7.99	2007-01-30 17:40:32.996577
16206	351	1	1137	1.99	2007-01-31 17:48:40.996577

Exercise 5

```
SELECT p.payment_id, p.amount
FROM payment p
INNER JOIN customer c ON p.customer_id = c.customer_id
WHERE c.last_name = 'DAVIS'
```

3 records

payment_id	amount
16685	4.99
16686	2.99
16687	0.99

Exercise 6

```
SELECT COUNT(*) FROM rental;

SELECT customer_id, COUNT(*) AS rental_count FROM rental
GROUP BY customer_id
ORDER BY customer_id;

SELECT customer_id, COUNT(*) AS rental_count FROM rental
GROUP BY customer_id
ORDER BY rental_count DESC;

SELECT customer_id, COUNT(*) AS rental_count FROM rental
GROUP BY customer_id
HAVING rental_count >= 40
ORDER BY rental_count DESC;
```

1 records

COUNT(*)
16044

Exercise 7

```
SELECT
    MAX(amount) AS max_amount,
    MIN(amount) AS min_amount,
    AVG(amount) AS avg_amount,
    SUM(amount) AS total_amount
FROM payment;

SELECT
    customer_id,
    MAX(amount) AS max_amount,
    MIN(amount) AS min_amount,
    AVG(amount) AS avg_amount,
    SUM(amount) AS total_amount
FROM payment
GROUP BY customer_id;

SELECT
    customer_id,
    MAX(amount) AS max_amount,
    MIN(amount) AS min_amount,
    AVG(amount) AS avg_amount,
    SUM(amount) AS total_amount
FROM payment
GROUP BY customer_id
HAVING COUNT(*) > 5;
```

1 records

max_amount	min_amount	avg_amount	total_amount
11.99	0.99	4.169775	4824.43

Disconnect

```
dbDisconnect(con)
```