

CODE: Running SQL Files

Section 7, Lecture 98

```
CREATE TABLE cats
(
    cat_id INT NOT NULL AUTO_INCREMENT,
    name VARCHAR(100),
    age INT,
    PRIMARY KEY(cat_id)
);
```

```
mysql-ctl cli
```

```
use cat_app;
```

```
source first_file.sql
```

```
DESC cats;
```

```
INSERT INTO cats(name, age)
VALUES('Charlie', 17);
```

```
INSERT INTO cats(name, age)
VALUES('Connie', 10);
```

```
SELECT * FROM cats;
```

```
source testing/insert.sql
```

CODE: Loading Our Book Data

Section 7, Lecture 100

```
CREATE TABLE books
(
    book_id INT NOT NULL AUTO_INCREMENT,
    title VARCHAR(100),
    author_fname VARCHAR(100),
    author_lname VARCHAR(100),
    released_year INT,
    stock_quantity INT,
    pages INT,
    PRIMARY KEY(book_id)
);

INSERT INTO books (title, author_fname, author_lname, released_year, stock_quantity, pages)
VALUES
('The Namesake', 'Jhumpa', 'Lahiri', 2003, 32, 291),
('Norse Mythology', 'Neil', 'Gaiman', 2016, 43, 304),
('American Gods', 'Neil', 'Gaiman', 2001, 12, 465),
('Interpreter of Maladies', 'Jhumpa', 'Lahiri', 1996, 97, 198),
('A Hologram for the King: A Novel', 'Dave', 'Eggers', 2012, 154, 352),
('The Circle', 'Dave', 'Eggers', 2013, 26, 504),
('The Amazing Adventures of Kavalier & Clay', 'Michael', 'Chabon', 2000, 68, 634),
('Just Kids', 'Patti', 'Smith', 2010, 55, 304),
('A Heartbreaking Work of Staggering Genius', 'Dave', 'Eggers', 2001, 104, 437),
('Coraline', 'Neil', 'Gaiman', 2003, 100, 208),
('What We Talk About When We Talk About Love: Stories', 'Raymond', 'Carver', 1981, 23, 176),
('Where I'm Calling From: Selected Stories', 'Raymond', 'Carver', 1989, 12, 526),
('White Noise', 'Don', 'DeLillo', 1985, 49, 320),
('Cannery Row', 'John', 'Steinbeck', 1945, 95, 181),
('Oblivion: Stories', 'David', 'Foster Wallace', 2004, 172, 329),
('Consider the Lobster', 'David', 'Foster Wallace', 2005, 92, 343);

SELECT database();

CREATE DATABASE book_shop;

use book_shop;

show tables;

source book_data.sql

DESC books;

SELECT * FROM books;
```

CODE: Working With CONCAT

Section 7, Lecture 102

```
SELECT author_fname, author_lname FROM books;
```

```
CONCAT(x,y,z) // from slides
```

```
CONCAT(column, anotherColumn) // from slides
```

```
CONCAT(author_fname, author_lname)
```

```
CONCAT(column, 'text', anotherColumn, 'more text')
```

```
CONCAT(author_fname, ' ', author_lname)
```

```
CONCAT(author_fname, author_lname); // invalid syntax
```

```
SELECT CONCAT('Hello', 'World');
```

```
SELECT CONCAT('Hello', '...', 'World');
```

```
SELECT
    CONCAT(author_fname, ' ', author_lname)
FROM books;
```

```
SELECT
    CONCAT(author_fname, ' ', author_lname)
    AS 'full name'
FROM books;
```

```
SELECT author_fname AS first, author_lname AS last,
    CONCAT(author_fname, ' ', author_lname) AS full
FROM books;
```

```
SELECT author_fname AS first, author_lname AS last,
    CONCAT(author_fname, ', ', author_lname) AS full
FROM books;
```

```
SELECT CONCAT(title, '-', author_fname, '-', author_lname) FROM books;
```

```
SELECT
    CONCAT_WS(' - ', title, author_fname, author_lname)
FROM books;
```

CODE: Introducing SUBSTRING

Section 7, Lecture 104

```
SELECT SUBSTRING('Hello World', 1, 4);
```

```
SELECT SUBSTRING('Hello World', 7);
```

```
SELECT SUBSTRING('Hello World', 3, 8);
```

```
SELECT SUBSTRING('Hello World', 3);
```

```
SELECT SUBSTRING('Hello World', -3);
```

```
SELECT SUBSTRING('Hello World', -7);
```

```
SELECT title FROM books;
```

```
SELECT SUBSTRING("Where I'm Calling From: Selected Stories", 1, 10);
```

```
SELECT SUBSTRING(title, 1, 10) FROM books;
```

```
SELECT SUBSTRING(title, 1, 10) AS 'short title' FROM books;
```

```
SELECT SUBSTR(title, 1, 10) AS 'short title' FROM books;
```

```
SELECT CONCAT  
  (  
    SUBSTRING(title, 1, 10),  
    '...'  
  )  
FROM books;
```

```
source book_code.sql
```

```
SELECT CONCAT  
  (  
    SUBSTRING(title, 1, 10),  
    '...'  
  ) AS 'short title'  
FROM books;
```

```
source book_code.sql
```

CODE: Introducing REPLACE

Section 7, Lecture 106

```
SELECT REPLACE('Hello World', 'Hell', '%$#@');
```

```
SELECT REPLACE('Hello World', 'l', '7');
```

```
SELECT REPLACE('Hello World', 'o', '0');
```

```
SELECT REPLACE('Hello World', 'o', '*');
```

```
SELECT  
    REPLACE('cheese bread coffee milk', ' ', ' and ');
```

```
SELECT REPLACE(title, 'e ', '3') FROM books;
```

```
-- SELECT  
--     CONCAT  
--     (  
--         SUBSTRING(title, 1, 10),  
--         '...'  
--     ) AS 'short title'  
-- FROM books;
```

```
SELECT  
    SUBSTRING(REPLACE(title, 'e', '3'), 1, 10)  
FROM books;
```

```
SELECT  
    SUBSTRING(REPLACE(title, 'e', '3'), 1, 10) AS 'weird string'  
FROM books;
```

*Note: Use `cmd + /` (mac) or `ctrl + /` (pc) to comment out SQL in c9.

CODE: Using REVERSE

Section 7, Lecture 108

```
SELECT REVERSE('Hello World');
```

```
SELECT REVERSE('meow meow');
```

```
SELECT REVERSE(author_fname) FROM books;
```

```
SELECT CONCAT('woof', REVERSE('woof'));
```

```
SELECT CONCAT(author_fname, REVERSE(author_fname)) FROM books;
```

CODE: Working with CHAR LENGTH

Section 7, Lecture 110

```
SELECT CHAR_LENGTH('Hello World');
```

```
SELECT author_lname, CHAR_LENGTH(author_lname) AS 'length' FROM books;
```

```
SELECT CONCAT(author_lname, ' is ', CHAR_LENGTH(author_lname), ' characters long') FROM books  
;
```

Resource: sql-format.com

CODE: Changing Case with UPPER and LOWER

Section 7, Lecture 112

```
SELECT UPPER('Hello World');
```

```
SELECT LOWER('Hello World');
```

```
SELECT UPPER(title) FROM books;
```

```
SELECT CONCAT('MY FAVORITE BOOK IS ', UPPER(title)) FROM books;
```

```
SELECT CONCAT('MY FAVORITE BOOK IS ', LOWER(title)) FROM books;
```


CODE: String Function Challenges Solution

Section 7, Lecture 115

```
SELECT REVERSE(UPPER('Why does my cat look at me with  
such hatred?'));
```

```
SELECT UPPER(REVERSE('Why does my cat look at me with  
such hatred?'));
```

```
I-like-cats
```

```
SELECT REPLACE(CONCAT('I', ' ', 'like', ' ', 'cats'), '  
, -');
```

```
SELECT REPLACE(title, ' ', '->') AS title FROM books;
```

```
SELECT  
    author_lname AS forwards,  
    REVERSE(author_lname) AS backwards  
FROM books;
```

```
SELECT  
    UPPER  
    (  
        CONCAT(author_fname, ' ', author_lname)  
    ) AS 'full name in caps'  
FROM books;
```

```
SELECT  
    CONCAT(title, ' was released in ', released_year) AS blurb  
FROM books;
```

```
SELECT  
    title,  
    CHAR_LENGTH(title) AS 'character count'  
FROM books;
```

```
SELECT
    CONCAT(SUBSTRING(title, 1, 10), '...') AS 'short title',
    CONCAT(author_lname, ', ', author_fname) AS author,
    CONCAT(stock_quantity, ' in stock') AS quantity
FROM books;
```