MySQL_Commands

Saturday, November 13, 2021   12:09 AM

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Commands	Output/Exp
| **show** databases; #shows available databases | ```
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| sakila             |
| sys                |
| world              |
+--------------------+
6 rows in set (0.00 sec)
``` |
create database test_database; # create database	
drop database test_database; #delete database	
use test_database; #use the selected database	
| **select** database(); # tells the currently selected database | ```
+------------+
| database() |
+------------+
| my_pets    |
+------------+
1 row in set (0.00 sec)
``` |
| **create table** cats(
age **int**,
address **varchar**(100)
); #creating table with name cats | |
| **show** tables; #shows available tables in the selected database. | ```
+-------------------+
| Tables_in_my_pets |
+-------------------+
| cats              |
+-------------------+
1 row in set (0.01 sec)
``` |
| show columns from cats # shows columns from the table cats.<br>OR<br><br>**desc** cats; #performs the same action as above describes the table. | ```
+-------+--------------+------+-----+---------+-------+
| Field | Type         | Null | Key | Default | Extra |
+-------+--------------+------+-----+---------+-------+
| name  | varchar(100) | YES  |     | NULL    |       |
| age   | int          | YES  |     | NULL    |       |
+-------+--------------+------+-----+---------+-------+
2 rows in set (0.02 sec)
``` |
drop table cats; # deletes the table cats from the database.	
Inserting data in the tables	
insert into cats (name, age) **values** ("jetson", 7); #this will insert data into already existing table.	
| select * from cats; | ```
+----------+------+
| name     | age  |
+----------+------+
| jetson   |    8 |
| victoria |    6 |
``` |

Multiple insert:

```
insert into cats (name, age) # don't forget to write table
values ("tim", 4), #name.
("john", 5),
("katy", 9),
("lens", 20);
```

show warnings; # shows you warnings.

```
insert into cats (name)
values ("cluadia");

# NULL is yes in the table. It means its ok to have
unknown value.
# NULL not means its 0.
```

```
+-------+-------------+------+-----+---------+-------+
| Field | Type        | Null | Key | Default | Extra |
+-------+-------------+------+-----+---------+-------+
| name  | varchar(50) | YES  |     | NULL    |       |
| age   | int         | YES  |     | NULL    |       |
+-------+-------------+------+-----+---------+-------+
2 rows in set (0.00 sec)
```

```
create table cats2 (
name varchar(50) not null,
age int not null ); # this will ensure that name and age
columns don't have null values. Default value is specifies
if nothing is provided.
```

```
create table cats2 (
name varchar(50) default "name not specified",
age int default 20 ); # here if any column entry is
null/not provided then default value is replaced.
```

```
create table cats2 (
name varchar(50) not null default "name is not specifies",
age int not null default 20 ); # here you can't write null
values and if no value provided then replaced by default
value.
```

```
+-------+-------------+------+-----+--------------------+-------+
| Field | Type        | Null | Key | Default            | Extra |
+-------+-------------+------+-----+--------------------+-------+
| name  | varchar(50) | NO   |     | name not specified |       |
| age   | int         | NO   |     | 20                 |       |
+-------+-------------+------+-----+--------------------+-------+
2 rows in set (0.01 sec)
```

```
create table unique_cats (
cat_id int not null,
name varchar(50),
age int,
primary key (cat_id)
); # primary key is unique to each entry.
```

```
# auto_increment will increment id as more entries comes
#in automatically.

create table employees(
id int auto_increment not null,
first_name varchar(50),
last_name varchar(50),
middle_name varchar(50),
current_status varchar(50) not null default "employed",
primary key(id)
);

insert into employees(id, first_name, last_name,
current_status)
values(1, "dolly", "devil", "internship");
```

```
+----------------+-------------+------+-----+----------+----------------+
| Field          | Type        | Null | Key | Default  | Extra          |
+----------------+-------------+------+-----+----------+----------------+
| id             | int         | NO   | PRI | NULL     | auto_increment |
| first_name     | varchar(50) | YES  |     | NULL     |                |
| last_name      | varchar(50) | YES  |     | NULL     |                |
| middle_name    | varchar(50) | YES  |     | NULL     |                |
| current_status | varchar(50) | NO   |     | employed |                |
+----------------+-------------+------+-----+----------+----------------+
5 rows in set (0.00 sec)

mysql> select * from employees;
+----+------------+-----------+-------------+----------------+
| id | first_name | last_name | middle_name | current_status |
+----+------------+-----------+-------------+----------------+
|  1 | dolly      | devil     | NULL        | internship     |
+----+------------+-----------+-------------+----------------+
1 row in set (0.01 sec)
```

CRUD Commands(Create, Read, Update, Delete):

```
# inserting data in cats table
insert into cats(name, breed, age)
values('Ringo', 'Tabby', 4),
('Cindy', 'Maine Coon', 10),
('Dumbledore', 'Maine Coon', 11),
('Egg', 'Persian', 4),
('Misty', 'Tabby', 13),
('George Michael', 'Ragdoll', 9),
('Jackson', 'Sphynx', 7);
```

Select statement

select * from cats; # gives us all the rows in the cats
table.

```
+--------+----------------+------------+------+
| cat_id | name           | breed      | age  |
+--------+----------------+------------+------+
|      1 | Ringo          | Tabby      |    4 |
|      2 | Cindy          | Maine Coon |   10 |
|      3 | Dumbledore     | Maine Coon |   11 |
|      4 | Egg            | Persian    |    4 |
|      5 | Misty          | Tabby      |   13 |
|      6 | George Michael | Ragdoll    |    9 |
|      7 | Jackson        | Sphynx     |    7 |
```

Query	Output
	```+--------+---------------+------------+------+``` 7 rows in set (0.01 sec)

select name from cats; #Accessing specific columns using #select statement.	```+---------------+```
	 `| name          |`
	 ```+---------------+```
	 `| Ringo         |`
	 `| Cindy         |`
	 `| Dumbledore    |`
	 `| Egg           |`
	 `| Misty         |`
	 `| George Michael |`
	 `| Jackson       |`
	 ```+---------------+```
	 7 rows in set (0.00 sec)

select name, age from cats;#selecting multiple columns at once. Here **order matters** as in the next query.	```+---------------+------+``` `| name	age |` ```+---------------+------+``` `| Ringo	4 |`   `| Cindy	10 |`   `| Dumbledore	11 |`   `| Egg	4 |`   `| Misty	13 |`   `| George Michael	9 |`   `| Jackson	7 |` ```+---------------+------+``` 7 rows in set (0.00 sec)
select breed, age, name from cats;	```+------------+------+---------------+``` `| breed	age	name |` ```+------------+------+---------------+``` `| Tabby	4	Ringo |`   `| Maine Coon	10	Cindy |`   `| Maine Coon	11	Dumbledore |`   `| Persian	4	Egg |`   `| Tabby	13	Misty |`   `| Ragdoll	9	George Michael |`   `| Sphynx	7	Jackson |` ```+------------+------+---------------+``` 7 rows in set (0.00 sec)
Where clause select * from cats **where** age=4;	```+--------+-------+---------+------+``` `	cat_id	name	breed	age	` ```+--------+-------+---------+------+``` `	1	Ringo	Tabby	4	`   `	4	Egg	Persian	4	` ```+--------+-------+---------+------+``` 2 rows in set (0.00 sec)
select * from cats where name='Egg'; # you can also write "egg", capital letter #doesn't affect the query.	```+--------+------+---------+------+``` `	cat_id	name	breed	age	` ```+--------+------+---------+------+``` `	4	Egg	Persian	4	` ```+--------+------+---------+------+``` 1 row in set (0.00 sec)

Some practice queries-Select, Where:
 select cat_id from cats;
	```+--------+```
	 `| cat_id |`
	 ```+--------+```
	 `|      1 |`
	 `|      2 |`
	 `|      3 |`
	 `|      4 |`
	 `|      5 |`
	 `|      6 |`
	 `|      7 |`
	 ```+--------+```
	 7 rows in set (0.00 sec)

select name, breed from cats;	```+---------------+------------+``` `| name	breed |` ```+---------------+------------+``` `| Ringo	Tabby |`   `| Cindy	Maine Coon |`   `| Dumbledore	Maine Coon |`   `| Egg	Persian |`   `| Misty	Tabby |`   `| George Michael	Ragdoll |`   `| Jackson	Sphynx |` ```+---------------+------------+``` 7 rows in set (0.00 sec)
select name, age from cats where breed='Tabby';	```+-------+------+``` `	name	age	` ```+-------+------+``` `	Ringo	4	`   `	Misty	13	` ```+-------+------+```

	2 rows in set (0.00 sec)
| select cat_id, age from cats where cat_id=age; | ```
+--------+------+
| cat_id | age  |
+--------+------+
|      4 |    4 |
|      7 |    7 |
+--------+------+
2 rows in set (0.00 sec)
``` |

Aliases:
select cat_id **as** id, name **as** cats_names from cats;
#aliases only changes name of the column for showing
original column name are not changed.

```
+----+----------------+
| id | cats_names     |
+----+----------------+
|  1 | Ringo          |
|  2 | Cindy          |
|  3 | Dumbledore     |
|  4 | Egg            |
|  5 | Misty          |
|  6 | George Michael |
|  7 | Jackson        |
+----+----------------+
7 rows in set (0.00 sec)
```

Update statement:
Keep in mind! do check before updating that you are
updating the right entries, same goes for delete
statement.

update cats **set** breed='Shorthair' where breed='Tabby';
#changing breed from 'tabby' to 'shorthair'.

```
+--------+----------------+------------+------+
| cat_id | name           | breed      | age  |
+--------+----------------+------------+------+
|      1 | Ringo          | Shorthair  |    4 |
|      2 | Cindy          | Maine Coon |   10 |
|      3 | Dumbledore     | Maine Coon |   11 |
|      4 | Egg            | Persian    |    4 |
|      5 | Misty          | Shorthair  |   13 |
|      6 | George Michael | Ragdoll    |    9 |
|      7 | Jackson        | Sphynx     |    7 |
+--------+----------------+------------+------+
7 rows in set (0.01 sec)
```

update cats set age=14 where name='Misty'; # change age
#from 13 to 14.

```
+--------+----------------+------------+------+
| cat_id | name           | breed      | age  |
+--------+----------------+------------+------+
|      1 | Ringo          | Shorthair  |    4 |
|      2 | Cindy          | Maine Coon |   10 |
|      3 | Dumbledore     | Maine Coon |   11 |
|      4 | Egg            | Persian    |    4 |
|      5 | Misty          | Shorthair  |   14 |
|      6 | George Michael | Ragdoll    |    9 |
|      7 | Jackson        | Sphynx     |    7 |
+--------+----------------+------------+------+
7 rows in set (0.00 sec)
```

Some practice queries-Update:

update cats set name='Jack' where name='jackson'; # update
'jackson' to 'jack'

```
+--------+----------------+------------+------+
| cat_id | name           | breed      | age  |
+--------+----------------+------------+------+
|      1 | Ringo          | Shorthair  |    4 |
|      2 | Cindy          | Maine Coon |   10 |
|      3 | Dumbledore     | Maine Coon |   11 |
|      4 | Egg            | Persian    |    4 |
|      5 | Misty          | Shorthair  |   14 |
|      6 | George Michael | Ragdoll    |    9 |
|      7 | Jack           | Sphynx     |    7 |
+--------+----------------+------------+------+
7 rows in set (0.00 sec)
```

update cats set breed='British Shorthair' where
name='Ringo'; # update 'Ringo' # breed to 'British
Shorthair'.

```
+--------+----------------+-------------------+------+
| cat_id | name           | breed             | age  |
+--------+----------------+-------------------+------+
|      1 | Ringo          | British Shorthair |    4 |
|      2 | Cindy          | Maine Coon        |   10 |
|      3 | Dumbledore     | Maine Coon        |   11 |
|      4 | Egg            | Persian           |    4 |
|      5 | Misty          | Shorthair         |   14 |
|      6 | George Michael | Ragdoll           |    9 |
|      7 | Jack           | Sphynx            |    7 |
+--------+----------------+-------------------+------+
7 rows in set (0.00 sec)
```

update cats set age=12 where breed='Maine Coon'; # update
'Maine Coon' age to 12.

```
+--------+----------------+-------------------+------+
| cat_id | name           | breed             | age  |
+--------+----------------+-------------------+------+
|      1 | Ringo          | British Shorthair |    4 |
|      2 | Cindy          | Maine Coon        |   12 |
|      3 | Dumbledore     | Maine Coon        |   12 |
|      4 | Egg            | Persian           |    4 |
|      5 | Misty          | Shorthair         |   14 |
|      6 | George Michael | Ragdoll           |    9 |
|      7 | Jack           | Sphynx            |    7 |
+--------+----------------+-------------------+------+
7 rows in set (0.00 sec)
```

Delete statement:

```
+--------+----------------+-------------------+------+
```

Before deleting something it is a good practice that you check what are going to delete by using select statement. **delete from** cats where name='egg'; # note that the cat_id 4 no longer existing.	``` | cat_id | name | breed | age | +--------+---------------+-------------------+------+ | 1 | Ringo | British Shorthair | 4 | | 2 | Cindy | Maine Coon | 12 | | 3 | Dumbledore | Maine Coon | 12 | | 5 | Misty | Shorthair | 14 | | 6 | George Michael | Ragdoll | 9 | | 7 | Jack | Sphynx | 7 | +--------+---------------+-------------------+------+ 6 rows in set (0.01 sec) ```
delete cats; #this will delete all the data inside the #table but the table structure still exist you can put data inside it. # drop table will entirely remove your table.	
Some practice queries-Delete: delete from cats where age=4;	``` +--------+---------------+------------+------+ | cat_id | name | breed | age | +--------+---------------+------------+------+ | 2 | Cindy | Maine Coon | 12 | | 3 | Dumbledore | Maine Coon | 12 | | 5 | Misty | Shorthair | 14 | | 6 | George Michael | Ragdoll | 9 | | 7 | Jack | Sphynx | 7 | +--------+---------------+------------+------+ 5 rows in set (0.00 sec) ```
delete from cats where age=cat_id; # deletes data where age and cat_id are same.	``` +--------+---------------+------------+------+ | cat_id | name | breed | age | +--------+---------------+------------+------+ | 2 | Cindy | Maine Coon | 12 | | 3 | Dumbledore | Maine Coon | 12 | | 5 | Misty | Shorthair | 14 | | 6 | George Michael | Ragdoll | 9 | +--------+---------------+------------+------+ 4 rows in set (0.00 sec) ```
delete from cats; # deletes all data from the table. Table still exists.	Empty set (0.00 sec)
Concatenation select concat (author_fname, ' ', author_lname) as full_name from books; #combines two columns/strings.	``` +---------------------+ | full_name | +---------------------+ | Jhumpa Lahiri | | Neil Gaiman | | Neil Gaiman | | Jhumpa Lahiri | | Dave Eggers | | Dave Eggers | | Michael Chabon | | Patti Smith | | Dave Eggers | | Neil Gaiman | | Raymond Carver | | Raymond Carver | | Don DeLillo | | John Steinbeck | | David Foster Wallace | | David Foster Wallace | +---------------------+ 16 rows in set (0.00 sec) ```
select author_fname as first, author_lname as last, concat (author_fname,' ', author_lname) as full from books; # concatenating two columns and aliasing names as full in the 3rd column.	``` +---------+---------------+---------------------+ | first | last | full | +---------+---------------+---------------------+ | Jhumpa | Lahiri | Jhumpa Lahiri | | Neil | Gaiman | Neil Gaiman | | Neil | Gaiman | Neil Gaiman | | Dave | Eggers | Dave Eggers | | Neil | Gaiman | Neil Gaiman | | Raymond | Carver | Raymond Carver | | Raymond | Carver | Raymond Carver | | Don | DeLillo | Don DeLillo | | John | Steinbeck | John Steinbeck | | David | Foster Wallace | David Foster Wallace | | David | Foster Wallace | David Foster Wallace | +---------+---------------+---------------------+ 16 rows in set (0.00 sec) ```
Concat with separator select **concat_ws** ('-', title, author_fname, author_lname) as full from books; # it will put the '-' after each concatenation #so you don't need to put seperator each time.	``` +--+ | full | +--+ | The Namesake-Jhumpa-Lahiri | | Norse Mythology-Neil-Gaiman | | American Gods-Neil-Gaiman | | Interpreter of Maladies-Jhumpa-Lahiri | | A Hologram for the King: A Novel-Dave-Eggers | | The Circle-Dave-Eggers | | The Amazing Adventures of Kavalier & Clay-Michael-Chabon | ```

	Just Kids-Patti-Smith
	A Heartbreaking Work of Staggering Genius-Dave-Eggers
	Coraline-Neil-Gaiman
	What We Talk About When We Talk About Love: Stories-Raymond-Carver
	Where I'm Calling From: Selected Stories-Raymond-Carver
	White Noise-Don-DeLillo
	Cannery Row-John-Steinbeck
	Oblivion: Stories-David-Foster Wallace
	Consider the Lobster-David-Foster Wallace

16 rows in set (0.00 sec)

Substring

```
select substring('Hello World', 1, 4);  # unlike python
index start from 1 not 0.
```

```
+------------------------------+
| substring('Hello World', 1, 4) |
+------------------------------+
| Hell                         |
+------------------------------+
1 row in set (0.00 sec)
```

```
select substring('Hello World',  -3);
```

```
+------------------------------+
| substring('Hello World',  -3) |
+------------------------------+
| rld                          |
+------------------------------+
1 row in set (0.01 sec)
```

```
select substring('Hello World',  4);   # if we pass one
value it start from that index to end.

OR

Select substring ('Hello World', 4, 8); # these both are
same produces same results.

OR

substr('Hello World', 4, 8) # substr() function.
```

```
+-----------------------------+
| substring('Hello World',  4) |
+-----------------------------+
| lo World                    |
+-----------------------------+
1 row in set (0.00 sec)
```

```
select substring(title, 1, 5) from books;
```

```
+----------------------+
| substring(title, 1, 5) |
+----------------------+
| The N                |
| Norse                |
| Ameri                |
| Inter                |
| A Hol                |
| The C                |
| The A                |
| Just                 |
| A Hea                |
| Coral                |
| What                 |
| Where                |
| White                |
| Canne                |
| Obliv                |
| Consi                |
+----------------------+
```

```
select substring(title, 1, 5) short_title from books;
```

```
+-------------+
| short_title |
+-------------+
| The N       |
| Norse       |
| Ameri       |
| Inter       |
| A Hol       |
| The C       |
| The A       |
| Just        |
| A Hea       |
| Coral       |
| What        |
| Where       |
| White       |
| Canne       |
| Obliv       |
| Consi       |
+-------------+
16 rows in set (0.00 sec)
```

```
select concat(substr(title, 1, 5), '...') as short_title
from books;
```

```
+-------------+
| short_title |
+-------------+
```

|  | ```
| The N...    |
| Norse...    |
| Ameri...    |
| Inter...    |
| A Hol...    |
| The C...    |
| The A...    |
| Just ...    |
| A Hea...    |
| Coral...    |
| What ...    |
| Where...    |
| White...    |
| Canne...    |
| Obliv...    |
| Consi...    |
+------------+
16 rows in set (0.00 sec)
``` |
|---|---|
| **Replace**<br><br>select replace('Hello World', 'l', '0'); | ```
+--------------------------------+
| replace('Hello World', 'l', '0') |
+--------------------------------+
| He00o Wor0d                    |
+--------------------------------+
1 row in set (0.00 sec)
``` |
| select replace('HellO World', 'o', '*'); # replace is case-sensitive only lower case 'o' got replaced. | ```
+--------------------------------+
| replace('HellO World', 'o', '*') |
+--------------------------------+
| HellO W*rld                    |
+--------------------------------+
1 row in set (0.00 sec)
``` |
| select replace('cheese bread coffe milk', ' ', ' and '); | ```
+-------------------------------------------------+
| replace('cheese bread coffe milk', ' ', ' and ') |
+-------------------------------------------------+
| cheese and bread and coffe and milk             |
+-------------------------------------------------+
1 row in set (0.00 sec)
``` |
| **Reverse clause**<br><br>select reverse('Hello World'); | ```
+----------------------+
| reverse('Hello World') |
+----------------------+
| dlroW olleH          |
+----------------------+
1 row in set (0.01 sec)
``` |
| **Character length**<br><br>select char_length('Hello World'); | ```
+--------------------------+
| char_length('Hello World') |
+--------------------------+
|                       11 |
+--------------------------+
1 row in set (0.00 sec)
``` |
| select author_fname, char_length(author_fname) as length from books; | ```
+-------------+--------+
| author_fname | length |
+-------------+--------+
| Jhumpa      |      6 |
| Neil        |      4 |
| Neil        |      4 |
| Jhumpa      |      6 |
| Dave        |      4 |
| Dave        |      4 |
| Michael     |      7 |
| Patti       |      5 |
| Dave        |      4 |
| Neil        |      4 |
| Raymond     |      7 |
| Raymond     |      7 |
| Don         |      3 |
| John        |      4 |
| David       |      5 |
| David       |      5 |
+-------------+--------+
16 rows in set (0.00 sec)
``` |
| select upper('hellow world'); | ```
+----------------------+
| upper('hellow world') |
+----------------------+
| HELLOW WORLD         |
+----------------------+
1 row in set (0.00 sec)
``` |
| select lower('hellow world'); | ```
+----------------------+
| lower('hellow world') |
+----------------------+
| hellow world         |
+----------------------+
1 row in set (0.00 sec)
``` |

| select concat('my favorite book is ', upper(title)) as titles from books; | ```
+----------------------------------------------------------------------------------+
| titles                                                                           |
+----------------------------------------------------------------------------------+
| my favorite book is THE NAMESAKE                                                  |
| my favorite book is NORSE MYTHOLOGY                                               |
| my favorite book is AMERICAN GODS                                                 |
| my favorite book is INTERPRETER OF MALADIES                                       |
| my favorite book is A HOLOGRAM FOR THE KING: A NOVEL                              |
| my favorite book is THE CIRCLE                                                    |
| my favorite book is THE AMAZING ADVENTURES OF KAVALIER & CLAY                     |
| my favorite book is JUST KIDS                                                     |
| my favorite book is A HEARTBREAKING WORK OF STAGGERING GENIUS                     |
| my favorite book is CORALINE                                                      |
| my favorite book is WHAT WE TALK ABOUT WHEN WE TALK ABOUT LOVE: STORIES           |
| my favorite book is WHERE I'M CALLING FROM: SELECTED STORIES                      |
| my favorite book is WHITE NOISE                                                   |
| my favorite book is CANNERY ROW                                                   |
| my favorite book is OBLIVION: STORIES                                             |
| my favorite book is CONSIDER THE LOBSTER                                          |
+----------------------------------------------------------------------------------+
16 rows in set (0.00 sec)
``` |
| **Some practice String Functions:**<br><br>select reverse(<br>upper('hello there im playing with sql ')<br>) as reverse_upper; # reverse the string alongwith<br>#capitalize it and aliase column name. | ```
+---------------------------------+
| reverse_upper                   |
+---------------------------------+
|  LQS HTIW GNIYALP MI EREHT OLLEH |
+---------------------------------+
1 row in set (0.00 sec)
``` |
| select replace(concat('I', ' ', 'like', ' ', 'cats'), ' ', '_'); # concatenate the strings and then replace spaces in #that string with '_'. | ```
+-----------------------------------------------------+
| replace(concat('I', ' ', 'like', ' ', 'cats'), ' ', '_') |
+-----------------------------------------------------+
| I_like_cats                                         |
+-----------------------------------------------------+
1 row in set (0.00 sec)
``` |
| select replace(title, ' ', '->') as title from books; | ```
+-----------------------------------------------------------+
| title                                                     |
+-----------------------------------------------------------+
| The->Namesake                                             |
| Norse->Mythology                                          |
| American->Gods                                            |
| Interpreter->of->Maladies                                 |
| A->Hologram->for->the->King:->A->Novel                    |
| The->Circle                                               |
| The->Amazing->Adventures->of->Kavalier->&->Clay           |
| Just->Kids                                                |
| A->Heartbreaking->Work->of->Staggering->Genius            |
| Coraline                                                  |
| What->We->Talk->About->When->We->Talk->About->Love:->Stories |
| Where->I'm->Calling->From:->Selected->Stories             |
| White->Noise                                              |
| Cannery->Row                                              |
| Oblivion:->Stories                                        |
| Consider->the->Lobster                                    |
+-----------------------------------------------------------+
16 rows in set (0.00 sec)
``` |
| select author_fname as forwards, reverse(author_fname) as backwards from books; | ```
+----------+-----------+
| forwards | backwards |
+----------+-----------+
| Jhumpa   | apmuhJ    |
| Neil     | lieN      |
| Neil     | lieN      |
| Jhumpa   | apmuhJ    |
| Dave     | evaD      |
| Dave     | evaD      |
| Michael  | leahciM   |
| Patti    | ittaP     |
| Dave     | evaD      |
| Neil     | lieN      |
| Raymond  | dnomyaR   |
| Raymond  | dnomyaR   |
| Don      | noD       |
| John     | nhoJ      |
| David    | divaD     |
| David    | divaD     |
+----------+-----------+
16 rows in set (0.00 sec)
``` |
| select upper(concat(author_fname, ' ', author_lname)) as 'full name in caps' from books; | ```
+---------------------+
| full name in caps   |
+---------------------+
| JHUMPA LAHIRI       |
| NEIL GAIMAN         |
| NEIL GAIMAN         |
``` |

```
| JHUMPA LAHIRI        |
| DAVE EGGERS          |
| DAVE EGGERS          |
| MICHAEL CHABON       |
| PATTI SMITH          |
| DAVE EGGERS          |
| NEIL GAIMAN          |
| RAYMOND CARVER       |
| RAYMOND CARVER       |
| DON DELILLO          |
| JOHN STEINBECK       |
| DAVID FOSTER WALLACE |
| DAVID FOSTER WALLACE |
+----------------------+
16 rows in set (0.00 sec)
```

```
select title,
char_length(title) as 'character count'
from books;
```

```
+---------------------------------------------------+-----------------+
| title                                             | character count |
+---------------------------------------------------+-----------------+
| The Namesake                                      |              12 |
| Norse Mythology                                   |              15 |
| American Gods                                     |              13 |
| Interpreter of Maladies                           |              23 |
| A Hologram for the King: A Novel                  |              32 |
| The Circle                                        |              10 |
| The Amazing Adventures of Kavalier & Clay         |              41 |
| Just Kids                                         |               9 |
| A Heartbreaking Work of Staggering Genius         |              41 |
| Coraline                                          |               8 |
| What We Talk About When We Talk About Love: Stories |            51 |
| Where I'm Calling From: Selected Stories          |              40 |
| White Noise                                       |              11 |
| Cannery Row                                       |              11 |
| Oblivion: Stories                                 |              17 |
| Consider the Lobster                              |              20 |
+---------------------------------------------------+-----------------+
16 rows in set (0.00 sec)
```

```
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;
```

```
+--------------+----------------------+--------------+
| short title  | author               | quantity     |
+--------------+----------------------+--------------+
| The Namesa... | Lahiri,Jhumpa       | 32 in stock  |
| Norse Myth... | Gaiman,Neil         | 43 in stock  |
| American G... | Gaiman,Neil         | 12 in stock  |
| Interprete... | Lahiri,Jhumpa       | 97 in stock  |
| A Hologram... | Eggers,Dave         | 154 in stock |
| The Circle... | Eggers,Dave         | 26 in stock  |
| The Amazin... | Chabon,Michael      | 68 in stock  |
| Just Kids... | Smith,Patti          | 55 in stock  |
| A Heartbre... | Eggers,Dave         | 104 in stock |
| Coraline... | Gaiman,Neil           | 100 in stock |
| What We Ta... | Carver,Raymond      | 23 in stock  |
| Where I'm ... | Carver,Raymond      | 12 in stock  |
| White Nois... | DeLillo,Don         | 49 in stock  |
| Cannery Ro... | Steinbeck,John      | 95 in stock  |
| Oblivion: ... | Foster Wallace,David | 172 in stock |
| Consider t... | Foster Wallace,David | 92 in stock  |
+--------------+----------------------+--------------+
16 rows in set (0.00 sec)
```

Vscode integration:

Create new MySQL user with old authentication method: CREATE USER 'sqluser'@'%' IDENTIFIED WITH mysql_native_password BY 'password'; GRANT ALL PRIVILEGES ON *.* TO 'sqluser'@'%'; FLUSH PRIVILEGES;	
mysql.exe -u root -p	
Work in Progress…	