

## MySQL - String Function - p2 - Lecture 10

Replace Function - It replaces the content of the existing string.

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

'%\$#@o World

```
mysql> SELECT REPLACE("Hello World" , "Hell" , "%$#@");
+-----+
| REPLACE("Hello World" , "Hell" , "%$#@") |
+-----+
| '%$#@o World                                |
+-----+
1 row in set (0.00 sec)
```

```
mysql> SELECT
    -> REPLACE('cheese bread coffee milk', ' ', ' and ');
+-----+
| REPLACE('cheese bread coffee milk', ' ', ' and ') |
+-----+
| cheese and bread and coffee and milk           |
+-----+
1 row in set (0.00 sec)
```

Reverse Keyword - will reverse the string from right to left.

```
mysql> SELECT REVERSE("Hello");
+-----+
| REVERSE("Hello") |
+-----+
| olleH           |
+-----+
1 row in set (0.00 sec)
```

CHAR\_LENGTH - Counts the character of a string - returns an integer.

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

```

mysql> SELECT CHAR_LENGTH("Data Minds");
+-----+
| CHAR_LENGTH("Data Minds") |
+-----+
|          10 |
+-----+
1 row in set (0.00 sec)

mysql> SELECT title , CHAR_LENGTH(title) as length FROM Books;
+-----+-----+
| title           | length |
+-----+-----+
| 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)

```

**UPPER() and LOWER()** - It converts the string to upper or lower case.

```

mysql> SELECT UPPER(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)

```

```
mysql> SELECT LOWER(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)
```

Palindrome? - Its a special string that can be identical while reading from left to right or right to left.

mom, racecar, dad, bob, pop, madam, radar , etc

Concat(of a normal string) + Reverse(of that string);

"stories" + "seirots" = "storiesseirots"

# Challenge Time.

Reverse and Uppercase the  
following sentence

"Why does my cat look at me with such hatred?"

```
mysql> SELECT REVERSE(UPPER("Why does my cat look at me with such hatred?"));
+-----+
| REVERSE(UPPER("Why does my cat look at me with such hatred?")) |
+-----+
| ?DERTAH HCUS HTIW EM TA KOOL TAC YM SEOD YHW |
+-----+
1 row in set (0.00 sec)

mysql> SELECT UPPER(REVERSE("Why does my cat look at me with such hatred?"));
+-----+
| UPPER(REVERSE("Why does my cat look at me with such hatred?")) |
+-----+
| ?DERTAH HCUS HTIW EM TA KOOL TAC YM SEOD YHW |
+-----+
1 row in set (0.00 sec)
```

What Does This Print Out?

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

I-like-cats

```
mysql> 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)
```

## Print This Out

forwards	backwards
Lahiri	irihal
Gaiman	namiaG
Gaiman	namiaG
Lahiri	irihal
Eggers	sreggE
Eggers	sreggE
Chabon	nobahC
Smith	htimS
Eggers	sreggE
Gaiman	namiaG
Carver	revraC
Carver	revraC
DeLillo	ollieD
Steinbeck	kcebniets
Foster Wallace	ecallaW retsoF
Foster Wallace	ecallaW retsoF
Smith	htimS

```
mysql> SELECT author_lname as forwards , REVERSE(author_lname) as backwards
-> FROM Books;
+-----+-----+
| forwards | backwards |
+-----+-----+
| Lahiri   | irihal    |
| Gaiman   | namiaG   |
| Gaiman   | namiaG   |
| Lahiri   | irihal    |
| Eggers   | sreggE   |
| Eggers   | sreggE   |
| Chabon   | nobahC  |
| Smith    | htimS    |
| Eggers   | sreggE   |
| Gaiman   | namiaG   |
| Carver   | revraC   |
| Carver   | revraC   |
| DeLillo  | ollieD   |
| Steinbeck| kcebniets |
| Foster Wallace| ecallaW retsoF |
| Foster Wallace| ecallaW retsoF |
+-----+-----+
16 rows in set (0.00 sec)
```

full name in caps
JHUMPA LAHIRI
NEIL GAIMAN
NEIL GAIMAN
JHUMPA LAHIRI
DAVE EGGRERS
DAVE EGGRERS
MICHAEL CHABON
PATTI SMITH
DAVE EGGRERS
NEIL GAIMAN
RAYMOND CARVER
RAYMOND CARVER
DON DELILLO
JOHN STEINBECK
DAVID FOSTER WALLACE
DAVID FOSTER WALLACE

Upper + Concat + Aliases.

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

```
mysql> SELECT CONCAT(UPPER(author_fname) , " " , UPPER(author_lname)) AS 'full name in caps' FROM Books;
+-----+
| full name in caps |
+-----+
| JHUMPA LAHIRI    |
| NEIL GAIMAN      |
| NEIL GAIMAN      |
| JHUMPA LAHIRI    |
| DAVE EGGRERS     |
| DAVE EGGRERS     |
| MICHAEL CHABON  |
| PATTI SMITH      |
| DAVE EGGRERS     |
| NEIL GAIMAN      |
| RAYMOND CARVER   |
| RAYMOND CARVER   |
| DON DELILLO      |
| JOHN STEINBECK  |
| DAVID FOSTER WALLACE |
| DAVID FOSTER WALLACE |
+-----+
16 rows in set (0.00 sec)
```

## Make This Happen!

```
+-----+  
| blurb  
+-----+  
| The Namesake was released in 2003  
| Norse Mythology was released in 2016  
| American Gods was released in 2001  
| Interpreter of Maladies was released in 1996  
| A Hologram for the King: A Novel was released in 2012  
| The Circle was released in 2013  
| The Amazing Adventures of Kavalier & Clay was released in 2000  
| Just Kids was released in 2010  
| A Heartbreaking Work of Staggering Genius: was released in 2001  
| Coraline was released in 2003  
| What We Talk About When We Talk About Love: Stories was released in 1981  
| Where I'm Calling From: Selected Stories was released in 1989  
| White Noise was released in 1985  
| Cannery Row was released in 1945  
| Oblivion: Stories was released in 2004  
| Consider the Lobster was released in 2005  
+-----+
```

```
mysql> SELECT CONCAT(title , " was released in " , released_year) AS blurb FROM Books;  
+-----+  
| blurb  
+-----+  
| The Namesake was released in 2003  
| Norse Mythology was released in 2016  
| American Gods was released in 2001  
| Interpreter of Maladies was released in 1996  
| A Hologram for the King: A Novel was released in 2012  
| The Circle was released in 2013  
| The Amazing Adventures of Kavalier & Clay was released in 2000  
| Just Kids was released in 2010  
| A Heartbreaking Work of Staggering Genius was released in 2001  
| Coraline was released in 2003  
| What We Talk About When We Talk About Love: Stories was released in 1981  
| Where I'm Calling From: Selected Stories was released in 1989  
| White Noise was released in 1985  
| Cannery Row was released in 1945  
| Oblivion: Stories was released in 2004  
| Consider the Lobster was released in 2005  
+-----+  
16 rows in set (0.00 sec)
```

## Print book titles and the length of each title

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:	42
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

```
mysql> 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)
```

## Last One, I Promise!

short title	author	quantity
American G...	Gaiman,Neil	12 in stock
A Heartbre...	Eggers,Dave	104 in stock

```
mysql> SELECT CONCAT(SUBSTR(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)
```