

## MySQL - String Function

<https://codeshare.io/0gyl8m>

```
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);
```

```
mysql> CREATE DATABASE books_db;
Query OK, 1 row affected (0.15 sec)

mysql> USE books_db;
Database changed
mysql> SHOW DATABASES;
+-----+
| Database |
+-----+
| books_db |
| employee |
| employeedetail |
| films |
| ig_clone |
| information_schema |
| mysql |
| performance_schema |
| shirts_db |
| testcricket |
| university |
+-----+
11 rows in set (0.00 sec)

mysql> SELECT DATABASE();
+-----+
| DATABASE() |
+-----+
| books_db |
+-----+
1 row in set (0.00 sec)
```

```
mysql> 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)
-> );
Query OK, 0 rows affected (0.14 sec)

mysql> SHOW TABLES;
+-----+
| Tables_in_books_db |
+-----+
| books |
+-----+
1 row in set (0.02 sec)
```

```

mysql> 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);
Query OK, 16 rows affected (0.02 sec)
Records: 16  Duplicates: 0  Warnings: 0

```

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

16 rows in set (0.00 sec)

CONCAT - is used to combine multiple columns together.

Concat(x,y,z.....)

```
mysql> SELECT title , CONCAT(author_fname , author_lname) FROM Books;
+-----+-----+
| title | CONCAT(author_fname , author_lname) |
+-----+-----+
| The Namesake | JhumpaLahiri |
| Norse Mythology | NeilGaiman |
| American Gods | NeilGaiman |
| Interpreter of Maladies | JhumpaLahiri |
| A Hologram for the King: A Novel | DaveEggers |
| The Circle | DaveEggers |
| The Amazing Adventures of Kavalier & Clay | MichaelChabon |
| Just Kids | PattiSmith |
| A Heartbreaking Work of Staggering Genius | DaveEggers |
| Coraline | NeilGaiman |
| What We Talk About When We Talk About Love: Stories | RaymondCarver |
| Where I'm Calling From: Selected Stories | RaymondCarver |
| White Noise | DonDeLillo |
| Cannery Row | JohnSteinbeck |
| Oblivion: Stories | DavidFoster Wallace |
| Consider the Lobster | DavidFoster Wallace |
+-----+
16 rows in set (0.00 sec)
```

```
mysql> SELECT title , CONCAT(author_fname , " ",author_lname) as author_name FROM Books;
+-----+-----+
| title | author_name |
+-----+-----+
| 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)
```

```

mysql> SELECT CONCAT(title , " was released in " , released_year) as Info FROM Books;
+-----+
| Info |
+-----+
| 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)

```

CONCAT\_WS → --> Concat With Separator

Concat\_WS("-", title , stock\_quantity)

```

mysql> SELECT Concat_WS("-" , title , stock_quantity) as Books_Stock FROM Books;
+-----+
| Books_Stock |
+-----+
| The Namesake-32
| Norse Mythology-43
| American Gods-12
| Interpreter of Maladies-97
| A Hologram for the King: A Novel-154
| The Circle-26
| The Amazing Adventures of Kavalier & Clay-68
| Just Kids-55
| A Heartbreaking Work of Staggering Genius-104
| Coraline-100
| What We Talk About When We Talk About Love: Stories-23
| Where I'm Calling From: Selected Stories-12
| White Noise-49
| Cannery Row-95
| Oblivion: Stories-172
| Consider the Lobster-92
+-----+
16 rows in set (0.00 sec)

```

SELECT  
 CONCAT\_WS(' - ', title, author\_fname, author\_lname)  
 FROM books;

## SUBSTRING

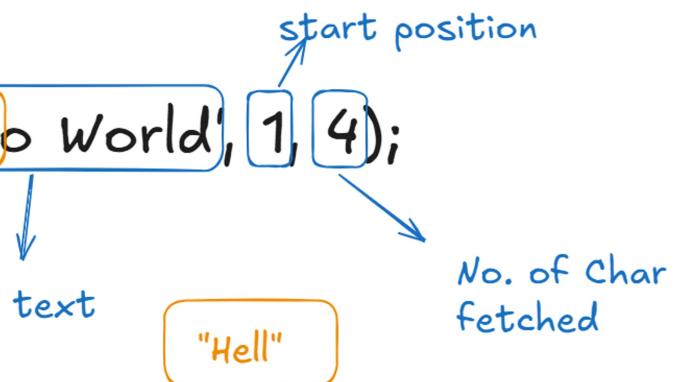
- Its a part of string fetched from the original String.

Title , - first 10 character from a title

- Month Name --- "January" , "Jan"

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

```
mysql> SELECT SUBSTRING('Hello World', 1, 4);
+-----+
| SUBSTRING('Hello World', 1, 4) |
+-----+
| Hell |
+-----+
1 row in set (0.00 sec)
```



SELECT SUBSTRING('Hello World', 7);

```
mysql> SELECT SUBSTRING('Hello World', 7);
+-----+
| SUBSTRING('Hello World', 7) |
+-----+
| World |
+-----+
1 row in set (0.00 sec)
```

It will fetch all the character after 7th character.

SELECT SUBSTRING('Hello World', -3);  
-3 -2 -1

```
mysql> SELECT SUBSTRING('Hello World', -3);
+-----+
| SUBSTRING('Hello World', -3) |
+-----+
| rld |
+-----+
1 row in set (0.00 sec)
```

```
mysql> SELECT SUBSTR('Hello World', -3);
+-----+
| SUBSTR('Hello World', -3) |
+-----+
| rld |
+-----+
1 row in set (0.00 sec)
```

**SUBSTR()** also works  
IF **SUBSTRING** is just too much typing for you

Write a code by observing the pattern available in output

short title
The Namesa...
Norse Myth...
American G...
Interprete...
A Hologram...
The Circle...
The Amazin...
Just Kids...
A Heartbre...
Coraline...
What We Ta...
Where I'm ...
White Nois...
Cannery Ro...
Oblivion: ...
Consider t...

Hint: Use Substring, Concat, aliases to provide the final result.

```
mysql> SELECT CONCAT(SUBSTR(title,1,10)) FROM Books;
+-----+
| CONCAT(SUBSTR(title,1,10)) |
+-----+
| The Namesa |
| Norse Myth |
| American G |
| Interprete |
| A Hologram |
| The Circle |
| The Amazin |
| Just Kids |
| A Heartbre |
| Coraline |
| What We Ta |
| Where I'm |
| White Nois |
| Cannery Ro |
| Oblivion: |
| Consider t |
+-----+
16 rows in set (0.01 sec)
```

```
mysql> SELECT CONCAT(SUBSTR(title,1,10) , "...") FROM Books;
+-----+
| CONCAT(SUBSTR(title,1,10) , "...") |
+-----+
| The Namesa... |
| Norse Myth... |
| American G... |
| Interprete... |
| A Hologram... |
| The Circle... |
| The Amazin... |
| Just Kids... |
| A Heartbre... |
| Coraline... |
| What We Ta... |
| Where I'm... |
| White Nois... |
| Cannery Ro... |
| Oblivion:... |
| Consider t... |
+-----+
16 rows in set (0.00 sec)
```

```
mysql> SELECT CONCAT(SUBSTR(title,1,10) , "...") as 'short title' FROM Books;
+-----+
| short title |
+-----+
| The Namesa... |
| Norse Myth... |
| American G... |
| Interprete... |
| A Hologram... |
| The Circle... |
| The Amazin... |
| Just Kids... |
| A Heartbre... |
| Coraline... |
| What We Ta... |
| Where I'm... |
| White Nois... |
| Cannery Ro... |
| Oblivion:... |
| Consider t... |
+-----+
16 rows in set (0.01 sec)
```