

String functions → books
 ↳ Concat

book_id	title	author_fname	author_lname	released_year	stock_quantity	pages
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	268
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

6 rows in set (0.00 sec)

- Select Concat(author_fname, ' ', author_lname)
 from books;
as

- Concat-ws
 \downarrow
 word separator

Select Concat-ws (' - ', author_fname, author_lname, released_year)
 from books;

Jhumpa - Lahiri - 1987-

Concat

```
author_fname, ' - ',
author_lname, ' - ',
'has released a book
in year', released_year
```

concat_ws

1 parameter

(' - ')

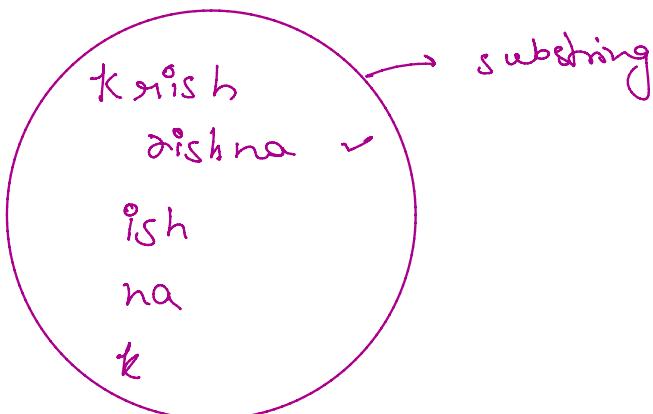
Substring

$\overset{0 \ 1 \ 2 \ 3 \ 4 \ 5 \ 6}{K \ r i s \ h n a} \rightarrow pos \rightarrow index$

$\hookrightarrow pos \rightarrow 0$ (Other languages like Java, Start from 0 C++, Python)

Sgl $\rightarrow 1$

$\overset{1 \ 2 \ 3 \ 7 \ 4 \ 5 \ 6}{(k \ r i s \ h n a)}$



Select substring ('Hello World', 1, 4);
 Hell
 ('Hello_World', 3, 8) \rightarrow llo Worl

Substring ✓

('Hello World', 3, 5) \rightarrow llo World

substr ✓

length as -ve

'Hello World', 3, 10 \rightarrow rld

('Hello world', 5, 9, 9) \rightarrow world

$T \rightarrow \text{word}$ T length

no. $\Rightarrow \neq$

end tk point krega

Substring - part of a string
(sequence)

substring

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.6 rows in set (0.00 sec)

Hello $\underset{\text{World}}{\text{World}}$ -s, ①

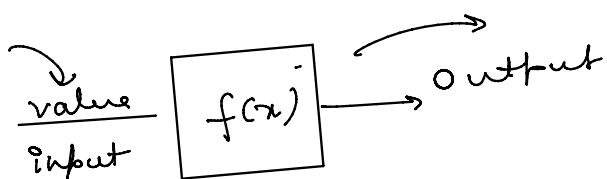
Replace

select Replace('Hello World', 'Hell', '\$#@#')

$\hookrightarrow \$#@#o$ world

Reverse

Reverse('Hello World') —
drow o uetH



Reverse ('Krishna') → (right to left)
ansirks

Palindrome

→ madam radar
maleyalam wow
eye lot
nurse
nitin
dad mom
level

(‘krishna’) (krishna anhsirk)

ma mq am
concat (ma' C^oreverse))

```
Select Concat ('woof', Reverse('woof'));
```

woofffoo w

char_length

char-length('Hello World');

char - xyz
11 → output

upper & lower

upper('hi') → HI
lower ('Hello') → hello

String function Challenges

① Replace spaces in titles with '-'>

title → Rename ' ' → '-'>

```
+-->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
```

Replace ' ' → '-'>

② Print This Out

forwards	backwards
Lahiri	irihAL
Gaiman	namiaG
Gaiman	irihAL
Lahiri	sreggE
Eggers	sreggE
Eggers	nobahC
Chabon	htimS
Smith	sreggE
Eggers	namiaG
Gaiman	revrac
Carver	revrac
Carver	ollieD
DeLillo	kcebniets
Steinbeck	scallaW fetsoF
Foster Wallace	ecallaW retsoF
Foster Wallace	htimS
Smith	

Reverse

③ Full name in caps

upper JHUMPA LAHIRI
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

④ 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

Concat

⑤ Print book titles and the length of each title

title	character count
The Namesake	15
Norse Mythology	15
American Gods	13
Interpreter of Maladies	23

3 hrs → mentally prepared
Char-length(title) as character_count

⑥ , an

short title | author | quantity

American G... | Gaiman, Neil | 12 in stock

A Heartbre... | Eggers, Dave | 104 in stock

select * 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:	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

```
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;
```

Consistency