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How to concatenate strings with padding in sqlite

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I have three columns in an sqlite table:

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Column1	Column2	Column3
A	1	1
A	1	2
A	12	2
C	13	2
B	11	2

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I need to select `Column1-Column2-Column3` (e.g. `A-01-0001`). I want to pad each column with a `0`.

I am a beginner with regards to SQLite, any help would be appreciated

[string](#)[sqlite](#)[sqlite3](#)[string-concatenation](#)[leading-zero](#)

edited Dec 15 '17 at 14:55



dreftymac

16.2k 21 91 154

asked May 26 '11 at 6:11



Akshara

1,401 7 24 28

Possible duplicate: stackoverflow.com/q/3568779/2291 – Jon Adams Oct 31 '12 at 20:48

3 Answers

344

The `||` operator is "concatenate" - it joins together the two strings of its operands.

From

http://www.sqlite.org/lang_expr.htmlFor padding, the seemingly-cheater way I've used is to start with your target string, say '0000', concatenate '0000423', then `substr(result, -4, 4)` for '0423'.

Update: Looks like there is no native implementation of "lpad" or "rpad" in SQLite, but you can follow along (basically what I proposed) here: <http://verysimple.com/2010/01/12/sqlite-lpad-rpad-function/>

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```
-- the statement below is almost the same as
-- select lpad(mycolumn,'0',10) from mytable

select substr('0000000000' || mycolumn, -10, 10) from mytable

-- the statement below is almost the same as
-- select rpad(mycolumn,'0',10) from mytable

select substr(mycolumn || '0000000000', 1, 10) from mytable
```

Here's how it looks:

```
SELECT col1 || '-' || substr('00' || col2, -2, 2) || '-' || substr('000' || col3, -4, 4)
```

it yields

```
"A-01-0001"
"A-01-0002"
"A-12-0002"
"C-13-0002"
"B-11-0002"
```

edited May '11 at 8:22



Donal Fellows

104k 15 113 176

answered May '11 at 6:17



tofutim

11.8k 14 65 130

3 Does || still work if one of the columns is null? – Andrew Nov 26 '13 at 22:06

8 @Andrew - In general any scalar operation that involves NULL will yield NULL. Your requirements may be met using COALESCE(nullable_field, '') || COALESCE(another_nullable_field, '') . – MatBaillie Feb 4 '14 at 8:45

SQLite has a [printf function](#) which does exactly that:

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```
SELECT printf('%s-%.2d-%.4d', col1, col2, col3) FROM mytable
```

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answered Sep 1 '14 at 20:22

[ybungalobill](#)


45.7k 13 95 162

-
- 1 Query Error: no such function: printf Unable to execute statement select printf('%s.%s', id, url) from mytable limit 7. My version is 3.8.2 2014-12-06. What version are you using? – [Berry Tsakala](#) Nov 2 '14 at 15:10
-
- 3 @BerryTsakala: 3.8.6 – [ybungalobill](#) Nov 8 '14 at 19:28
-



Just one more line for @tofutim answer ... if you want custom field name for concatenated row ...

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```
SELECT
(
  col1 || '-' || SUBSTR('00' || col2, -2, 2) || '-' || SUBSTR('0000' || col3, -4, 4)
) AS my_column
FROM
mytable;
```

Tested on [SQLite 3.8.8.3](#), Thanks!

answered Apr 9 '15 at 3:15

[Madan Sapkota](#)

16.8k 7 84 100

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