

PHP and outputting one-to-many results

Asked 15 years, 10 months ago Modified 15 years, 10 months ago Viewed 872 times

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I've only dealt with one-to-one relationships in php so far, but I'm stuck on a problem which involves a one-to-many relationship. I've been sitting on this for a few days with no luck, so I'm desperate for someone to step in and show me a solution before I lose my mind.

In my database have a series of urls, which are received by a SELECT query along with various other fields, from different tables. Every url has at least one category associated with it, but can have multiple categories. So in my results I might see something that looks a bit like this:

```
link_id = 3    url= 'http://www.somesite1.com'    category = 'uncategorised'
link_id = 4    url= 'http://www.somesite2.com'    category = 'travel'
link_id = 4    url= 'http://www.somesite2.com'    category = 'fun'
link_id = 4    url= 'http://www.somesite2.com'    category = 'misc'
link_id = 3    url= 'http://www.somesite3.com'    category = 'uncategorised'
```

I have got this to work, kind of. When I loop through and print them off, using a while loop and mysql fetch array, the result looks exactly like it does above. Thats great, except what I need is for it to read something like:

```
link_id = 4    url = 'http://www.somesite2.com'    category = 'travel fun misc'
```

So that basically all of the categories for each url get combined somehow, as they are printed out. My first attempt led me to try a nested while loop, but it didn't work and i'm not sure if this is feasible. Apart from that I'm wondering if I might need a multidimensional array (complete guess, i've never had to use one before).

I'm ordering these results by link id as above, so I know if the link id in the current loop iteration, matches the one in the last iteration - then I have something which has more than one category.. I think I'm really close, but I just can't figure it out.

Any ideas?

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asked Feb 12, 2009 at 14:26



Jon

433 ● 4 ● 10

4 Answers

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There is also the "GROUP_CONCAT" function in mysql. That should do exactly what you want to achieve.

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Something like :



```
SELECT url, GROUP_CONCAT(category) AS categories FROM yourtable GROUP BY url
```



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answered Feb 12, 2009 at 14:51



stout



This worked perfectly when I ran the query, and again when I plugged it into my php script. I wasn't aware of that function, but it was exactly what I was after. Thanks! – Jon Feb 12, 2009 at 15:36



You should be using a connection table.

0

1st you have a table of links



```
id = 1 url = something  
id = 2 url = something else
```



Then you have a table of categories

```
id = 1 category = something  
id = 2 category = something else
```

Then you have a connection table

```
url_id = 1 category_id = 1  
url_id = 1 category_id = 2  
url_id = 2 category_id = 1
```

This should atleast get you started.

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answered Feb 12, 2009 at 14:33

Ólafur Waage

69.9k ● 22 ● 145 ● 199

ahh sorry, I should have made it a bit more clear. If I understand correctly, I do have a set up like this. A table called categories, just being a repository of all the categories that exist, then a table that just contains urls, then a table with url_id's and cat_id's to join them together.

– Jon Feb 12, 2009 at 14:57

No problem :) I'll keep the answer until you update the question if you want to do that.

– Ólafur Waage Feb 12, 2009 at 15:16

you need to use a control break algorithm.

```
set last_link variable to null
set combined_category to null
exec query

loop over result set {
  if last_link == null {
    last_link=fetch_link
  }
  if fetch_link==last_link {
    set combined_category+=ltrim(' '.fetch_category)
  } else {
    display html for last_link and combined_category
    set last_link=fetch_link
    set combined_category=fetch_category
  }
} //loop

display html for last_link and combined_category
```

I used "display html" as a generic "work" event, you could push this out to a array structure, etc. instead...

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answered Feb 12, 2009 at 14:49

KM.

104k ● 34 ● 180 ● 213

use an array keyed on the id and url iterate through the values and add to it as follows:

```
$link_categories[ $id ] .= $category." ";
$result = mysql_query("SELECT * FROM LINKS");
$link_categories = array();
while ($row = mysql_fetch_array($result,MYSQL_ASSOC))
{
```

```
if (!isset($link_categories[$row['link']]))
    $link_categories[$row['link']] = " ";
else
    $link_categories[$row['link']] .= " ";

$link_categories[$row['link']] .= $row['category'];
}

print_r($link_categories);
```

Results in:

```
Array
(
    [http://a.com] => test evaluate performance
    [http://b.com] => classify reduce
    [http://c.com] => allocate
)
```

This isn't the 'right' way of doing this - really the relationships should be defined in a separate table with a 1-many relationship.

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edited Feb 12, 2009 at 14:58

answered Feb 12, 2009 at 14:43

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Richard Harrison

19.4k ● 4 ● 42 ● 67