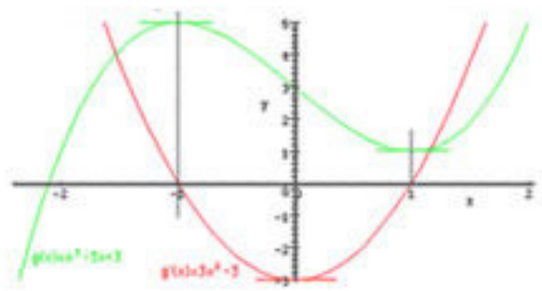
MySQL GUI Tools
MySQL & PHP

Jeff Kopmanis, *Mathematics*
kopmanis@umich.edu

University of Michigan
Mathematics



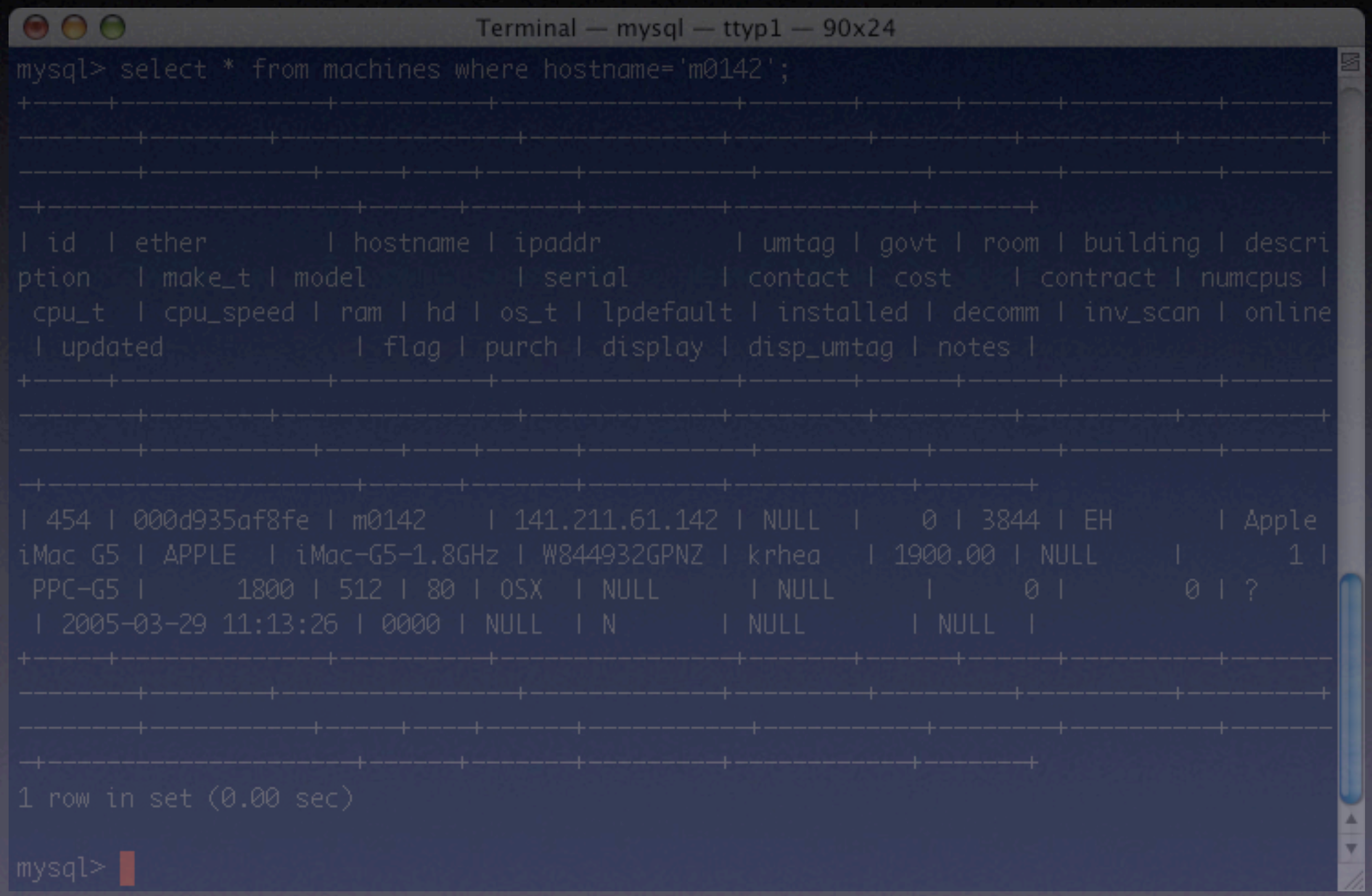
Command Line Utility

Terminal — mysql — ttyp1 — 90x24

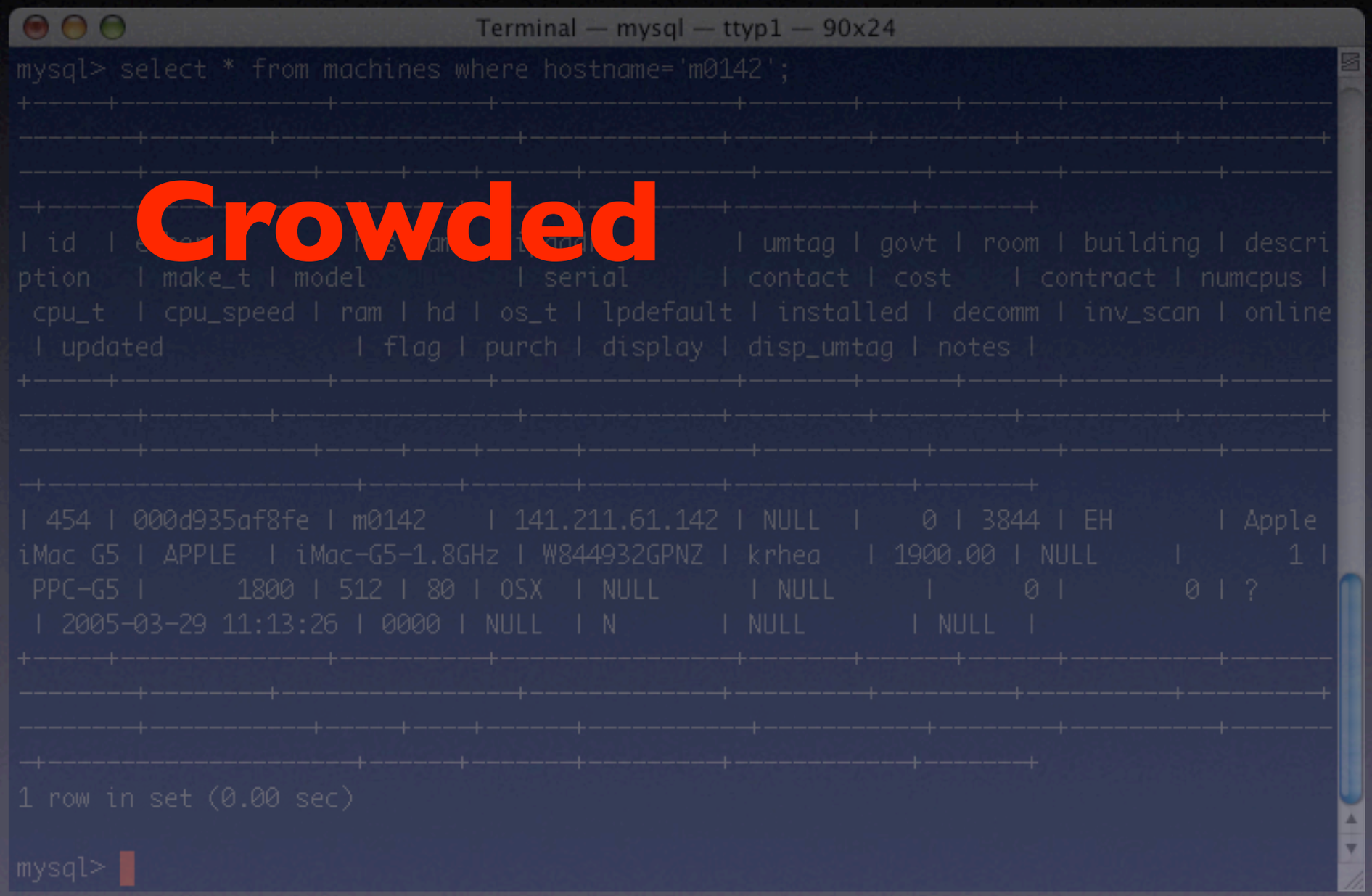
```
mysql> select * from machines where hostname='m0142';
+-----+-------------+---------+---------------+------+-----+-----+---------+-------
--------+--------+---------------+------------+---------+--------+---------+--------+
-------+----------+-----+---+-----+----------+----------+-------+---------+-------
-+--------------------+------+------+--------+-----------+------+
| id  | ether        | hostname | ipaddr         | umtag | govt | room | building | descri
ption   | make_t | model          | serial      | contact | cost    | contract | numcpus |
 cpu_t  | cpu_speed | ram | hd | os_t | lpdefault | installed | decomm | inv_scan | online
 | updated             | flag | purch | display | disp_umtag | notes |
+-----+-------------+---------+---------------+------+-----+-----+---------+-------
--------+--------+---------------+------------+---------+--------+---------+--------+
-------+----------+-----+---+-----+----------+----------+-------+---------+-------
-+--------------------+------+------+--------+-----------+------+
| 454 | 000d935af8fe | m0142    | 141.211.61.142 | NULL  |    0 | 3844 | EH       | Apple
iMac G5 | APPLE  | iMac-G5-1.8GHz | W844932GPNZ | krhea   | 1900.00 | NULL     |       1 |
 PPC-G5 |      1800 | 512 | 80 | OSX  | NULL       | NULL       |      0 |        0 | ?
 | 2005-03-29 11:13:26 | 0000 | NULL  | N       | NULL       | NULL  |
+-----+-------------+---------+---------------+------+-----+-----+---------+-------
--------+--------+---------------+------------+---------+--------+---------+--------+
-------+----------+-----+---+-----+----------+----------+-------+---------+-------
-+--------------------+------+------+--------+-----------+------+
1 row in set (0.00 sec)

mysql>
```

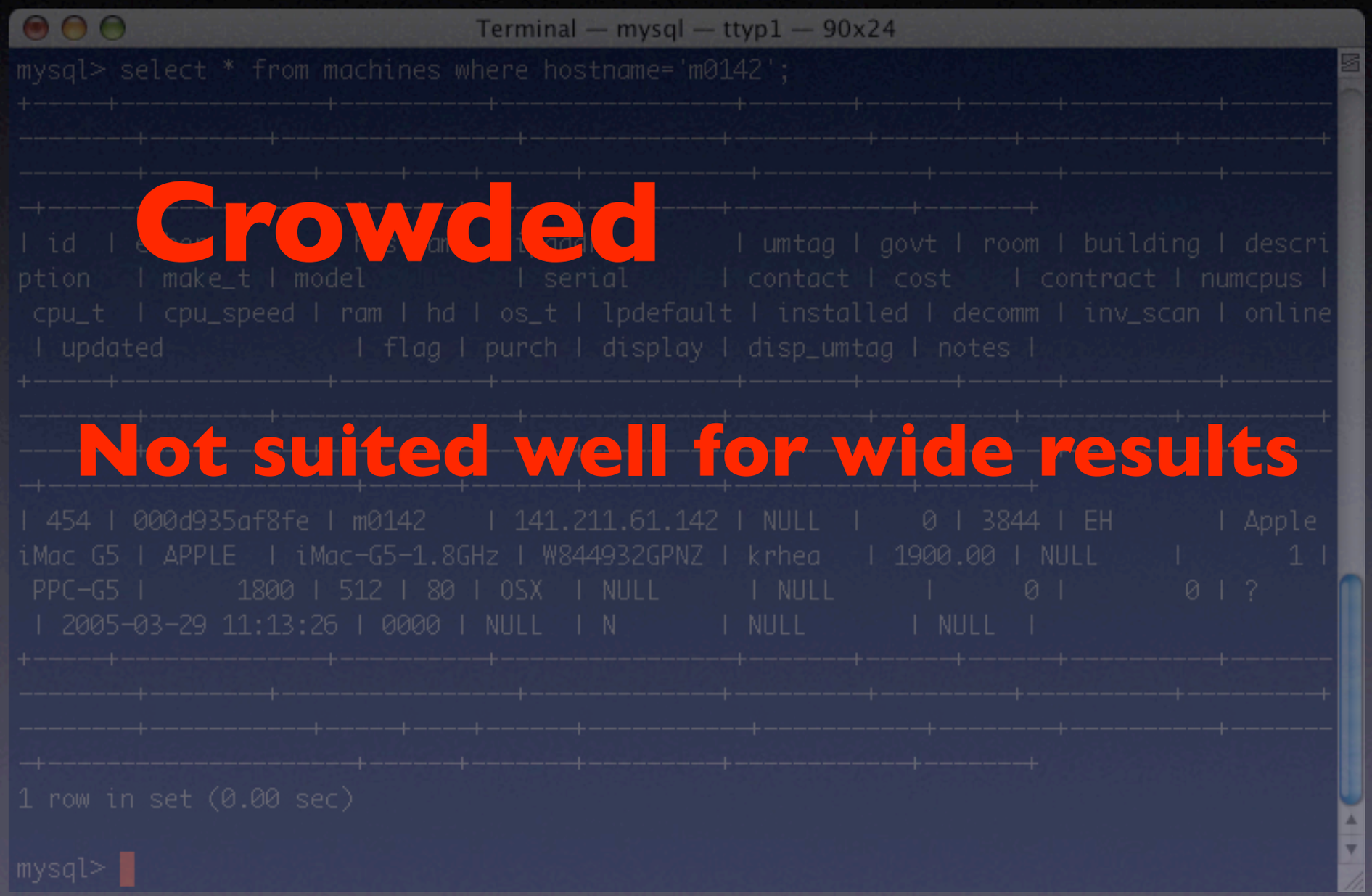
Command Line Utility



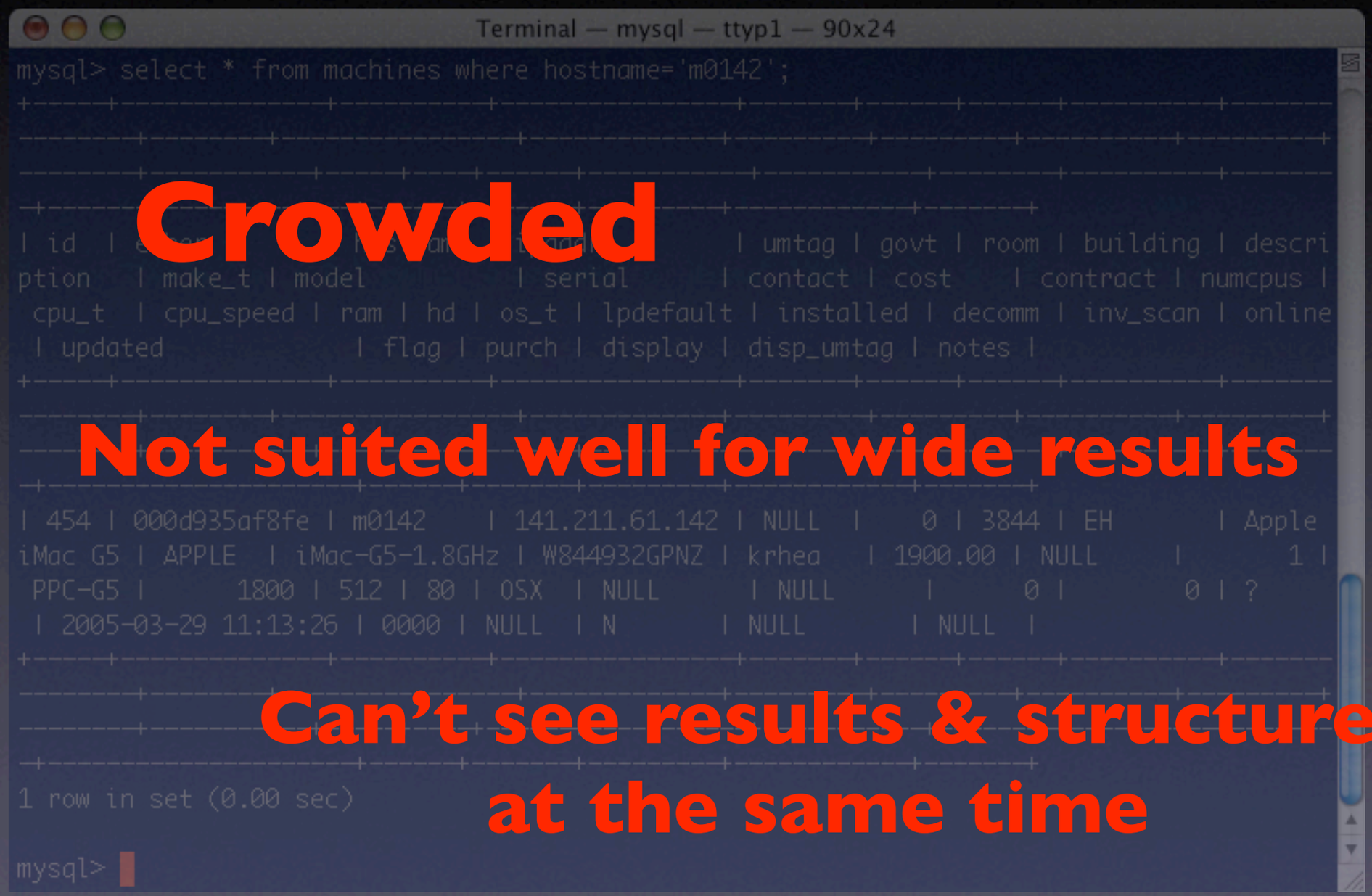
Command Line Utility



Command Line Utility



Command Line Utility



Crowded

Not suited well for wide results

Can't see results & structure at the same time

GUI Tools

- **Multi-platform**

GUI Tools

- **Multi-platform**
  - *Microsoft Windows*

GUI Tools

- **Multi-platform**
  - *Microsoft Windows*
  - *Linux (RedHat, SuSE, Debian, Others)*

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- **STANDARD!**

GUI Tools

- **Multi-platform**
  - *Microsoft Windows*
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- **A "Workbench" for SQL tasks**
- **STANDARD!**
- **Open Source - FREE!**

MySQL Administrator

MySQL Administrator

- GUI Administrative Tool

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- Open Source - Freely available

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MySQL Administrator

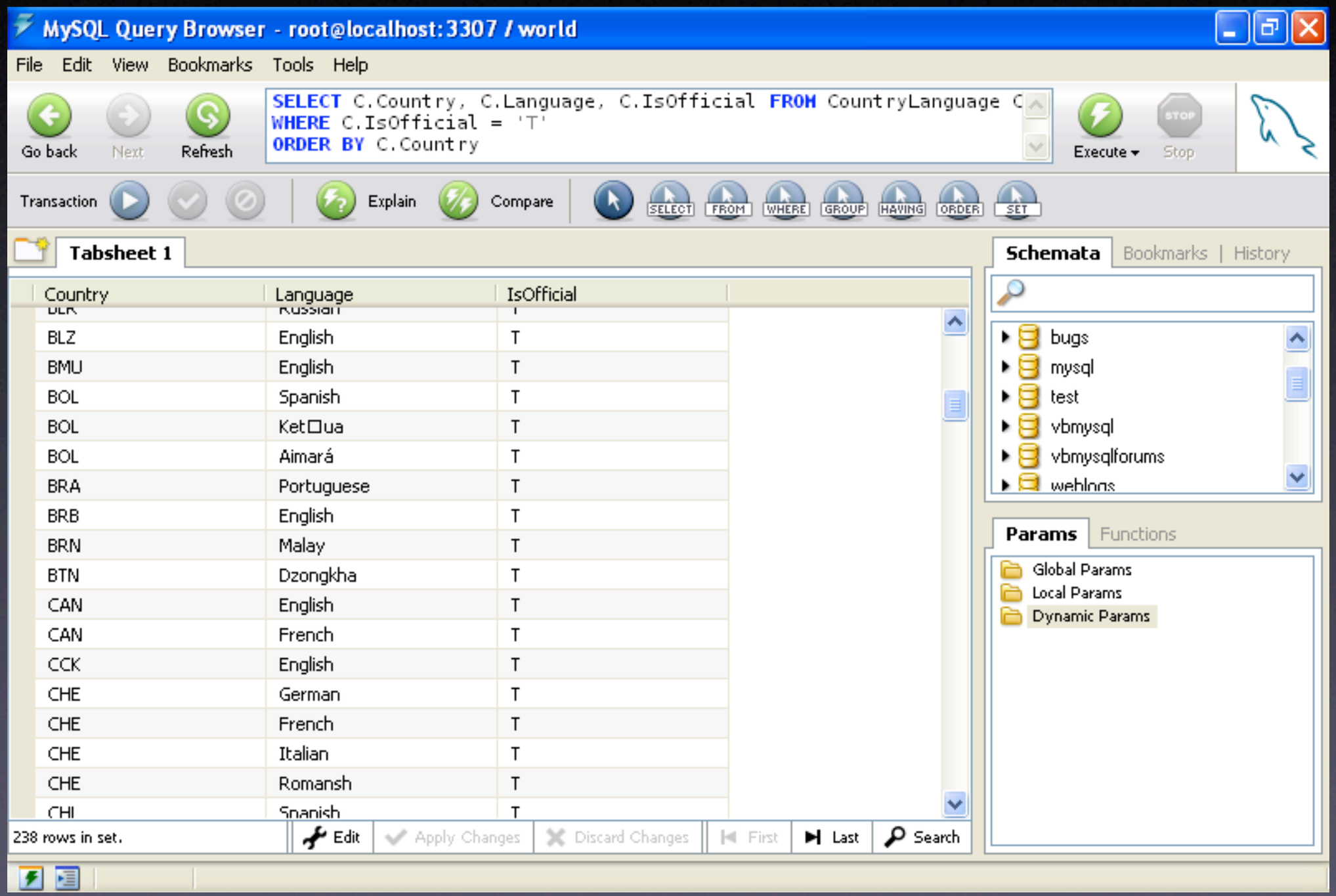
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MySQL Administrator

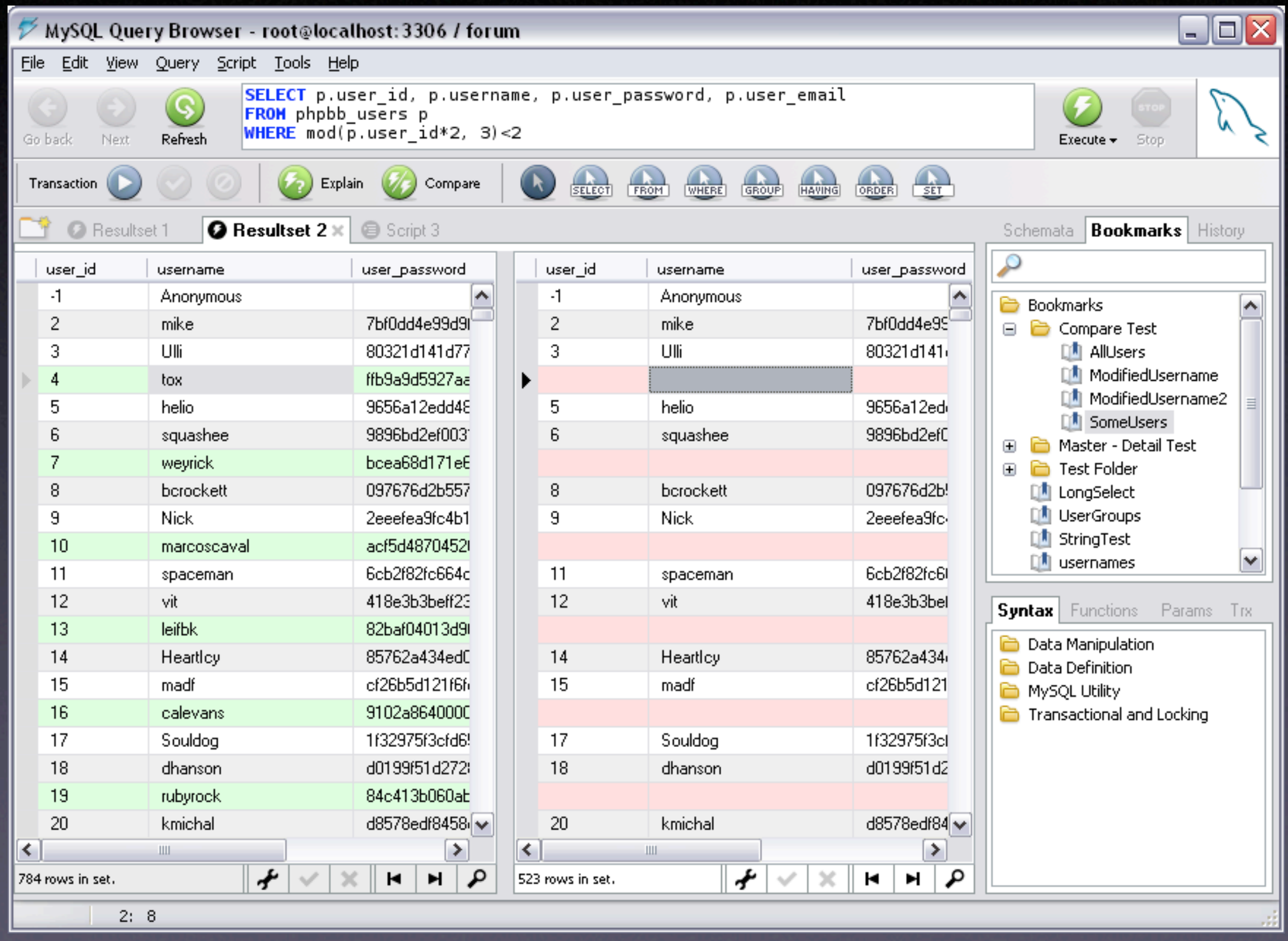
Demo

MySQL Query Browser

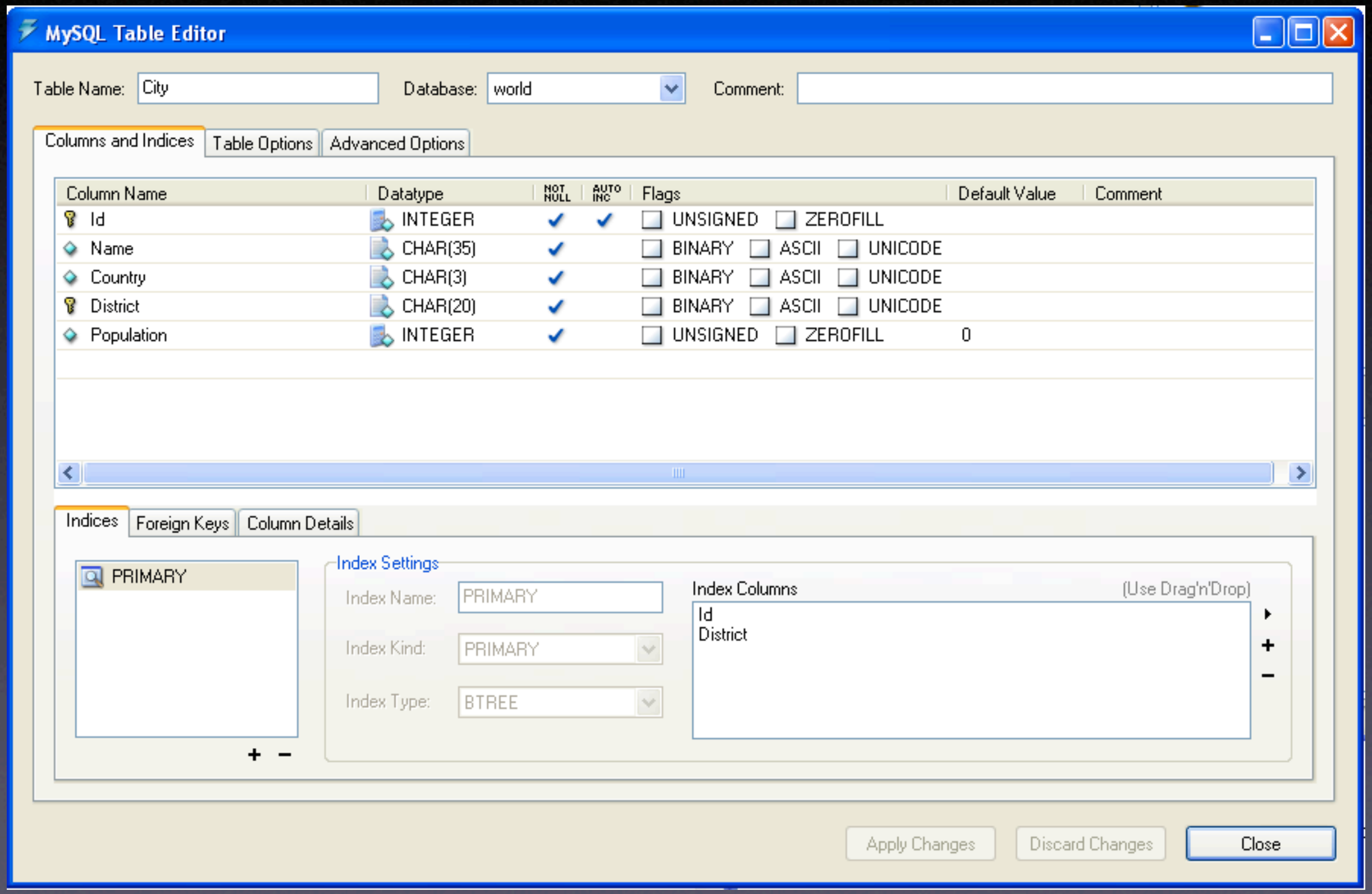
MySQL Query Browser



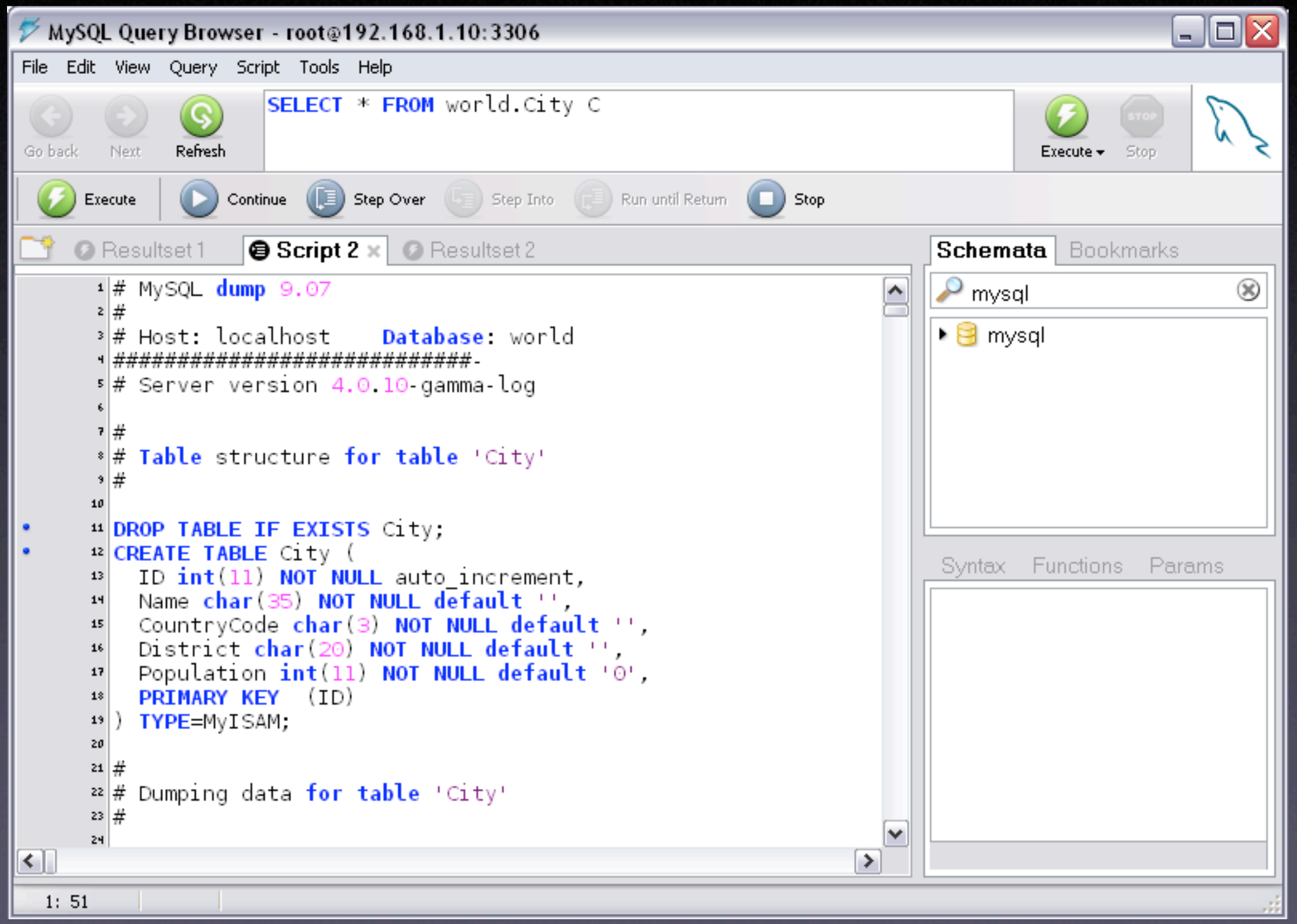
MySQL Query Browser



MySQL Query Browser



MySQL Query Browser



CocoaMySQL

Demo

Dynamic Web Pages

MySQL & PHP





“Why would I want to use a Dynamic page!?”

“Why would I want to use a Dynamic page!?”

- When content has to be updated frequently

“Why would I want to use a Dynamic page!?”

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- When content is interdependent

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“Why would I want to use a Dynamic page!?”

- When content has to be updated frequently
- When content is interdependent
- When you want a page to be configurable
- When other software has to get at the data
- *What’s <u>your</u> idea for a dynamic page?*

Anatomy of a Dynamic Web Page

1. Submit a URL to your browser



Safari Browser



http://www.umich.edu/somepage.php

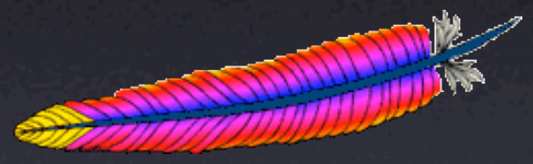
Anatomy of a Dynamic Web Page

2. Browser sends request to web server



Safari
Browser

http://www.umich.edu/somepage.php



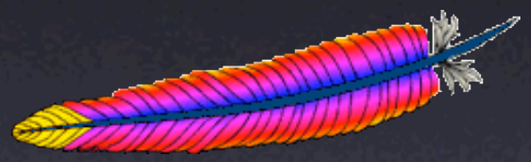
Web
Server

Anatomy of a Dynamic Web Page

3. Web server runs a script



Safari Browser



Web Server

somepage.php



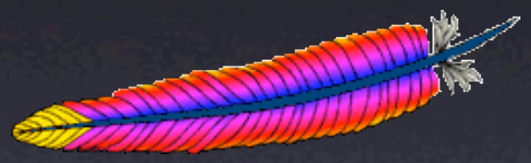
Script Language

Anatomy of a Dynamic Web Page

4. Script makes SQL Queries for data



Safari Browser



Web Server



Script Language

SELECT * FROM dtable



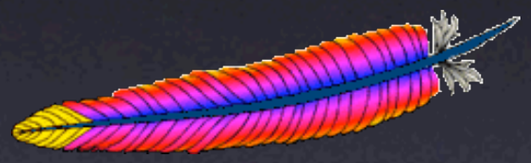
SQL Database

Anatomy of a Dynamic Web Page

5. Database returns data to script for processing



Safari Browser



Web Server



Script Language

123, Jeff
456, Mary
789, Dave



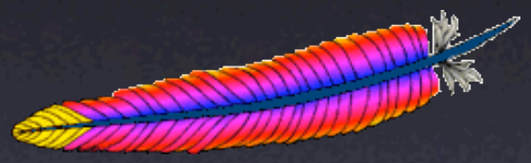
SQL Database

Anatomy of a Dynamic Web Page

6. Script prepares HTML and sends it to the Web Server



Safari Browser

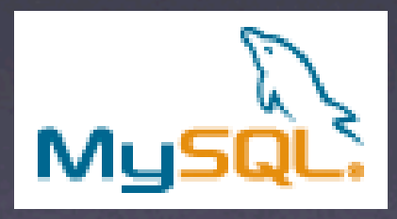


Web Server



Script Language

...<td>123</td><td>Jeff</td></tr><tr><td>456...



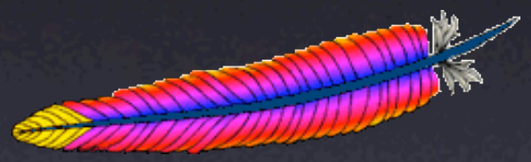
SQL Database

Anatomy of a Dynamic Web Page

7. Web server finishes processing and sends stream to your browser



Safari Browser



Web Server



Script Language



SQL Database

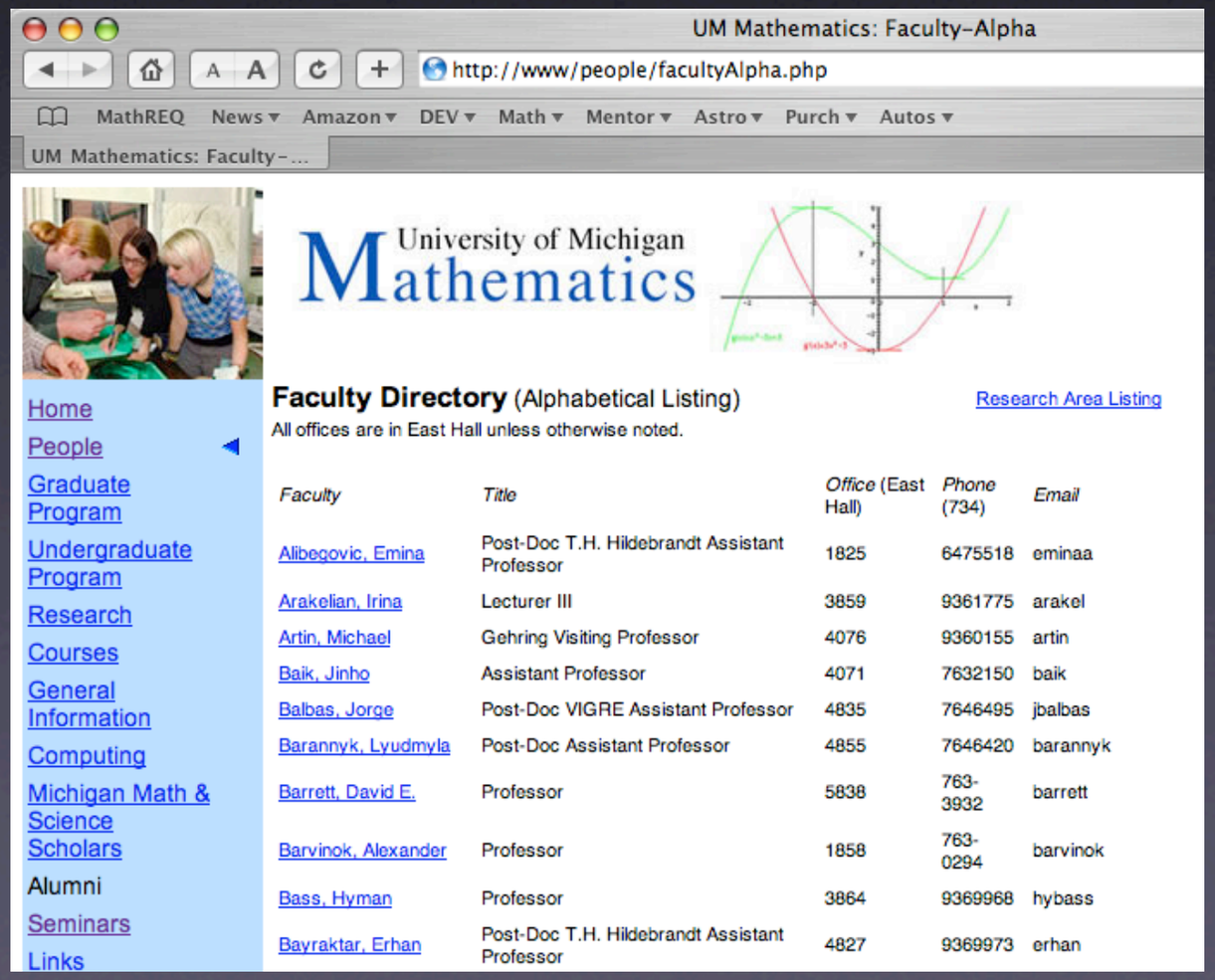
...<td>123</td><td>Jeff</td></tr><tr><td>456...

Anatomy of a Dynamic Web Page

8. Your browser renders the HTML and displays the formatted results



Safari Browser



Some PHP Examples





hello.php

```
<?
print "Hello, World!";
?>
```

hello.php

```
<?
print "Hello, World!";
?>
```



hello_vars.php

```
<center>
<?
$hello = “Hello”;
$world = “World”;
print $hello.”, “.$world.”<br>”;
?>
</center>
<hr>
```

hello_vars.php

```
<center>
<?
$hello = "Hello";
$world = "World";
print $hello." ".$world."<br>";
?>
</center>
<br>
```



db.php

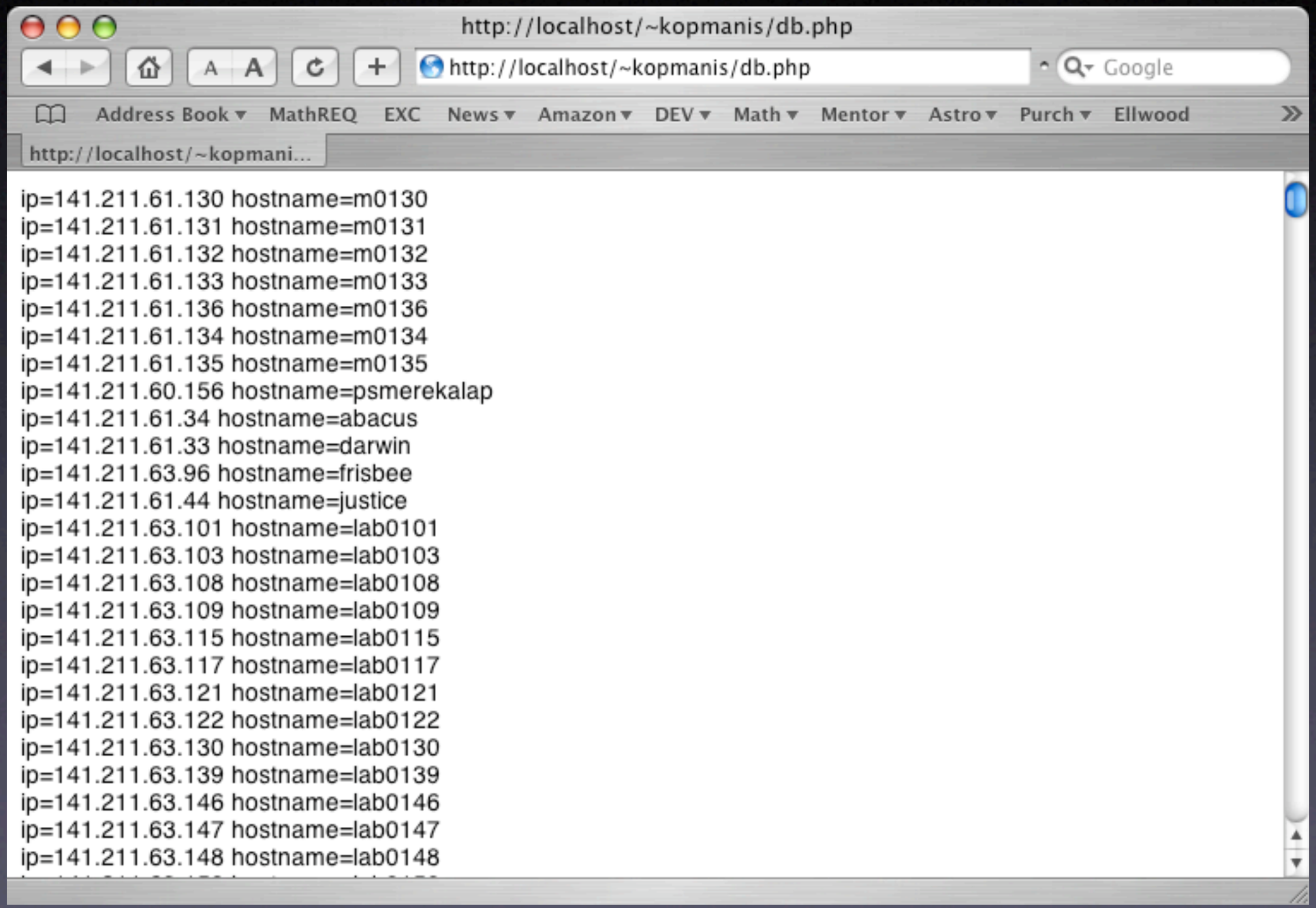
```
<?
##########################
# Make Database connection
$db = mysql_connect("localhost","root","");
mysql_select_db("inventory",$db);

$sql = "SELECT ipaddr,hostname FROM machines”;
$result = mysql_query($sql);

while( $datarow = mysql_fetch_array($result) ) {
  # 2 print statements for prettiness!
  print “ip=”.$datarow[‘ipaddr’];
  print ”  hostname=”.$datarow[‘host’].”<br>\n”;
  }

mysql_close($db);
?>
```

db.php


http://localhost/~kopmanis/db.php
http://localhost/~kopmanis/db.php
Google
Address Book
MathREQ
EXC
News
Amazon
DEV
Math
Mentor
Astro
Purch
Ellwood
http://localhost/~kopmani...
ip=141.211.61.130 hostname=m0130
ip=141.211.61.131 hostname=m0131
ip=141.211.61.132 hostname=m0132
ip=141.211.61.133 hostname=m0133
ip=141.211.61.136 hostname=m0136
ip=141.211.61.134 hostname=m0134
ip=141.211.61.135 hostname=m0135
ip=141.211.60.156 hostname=psmerekalap
ip=141.211.61.34 hostname=abacus
ip=141.211.61.33 hostname=darwin
ip=141.211.63.96 hostname=frisbee
ip=141.211.61.44 hostname=justice
ip=141.211.63.101 hostname=lab0101
ip=141.211.63.103 hostname=lab0103
ip=141.211.63.108 hostname=lab0108
ip=141.211.63.109 hostname=lab0109
ip=141.211.63.115 hostname=lab0115
ip=141.211.63.117 hostname=lab0117
ip=141.211.63.121 hostname=lab0121
ip=141.211.63.122 hostname=lab0122
ip=141.211.63.130 hostname=lab0130
ip=141.211.63.139 hostname=lab0139
ip=141.211.63.146 hostname=lab0146
ip=141.211.63.147 hostname=lab0147
ip=141.211.63.148 hostname=lab0148

db_form.php

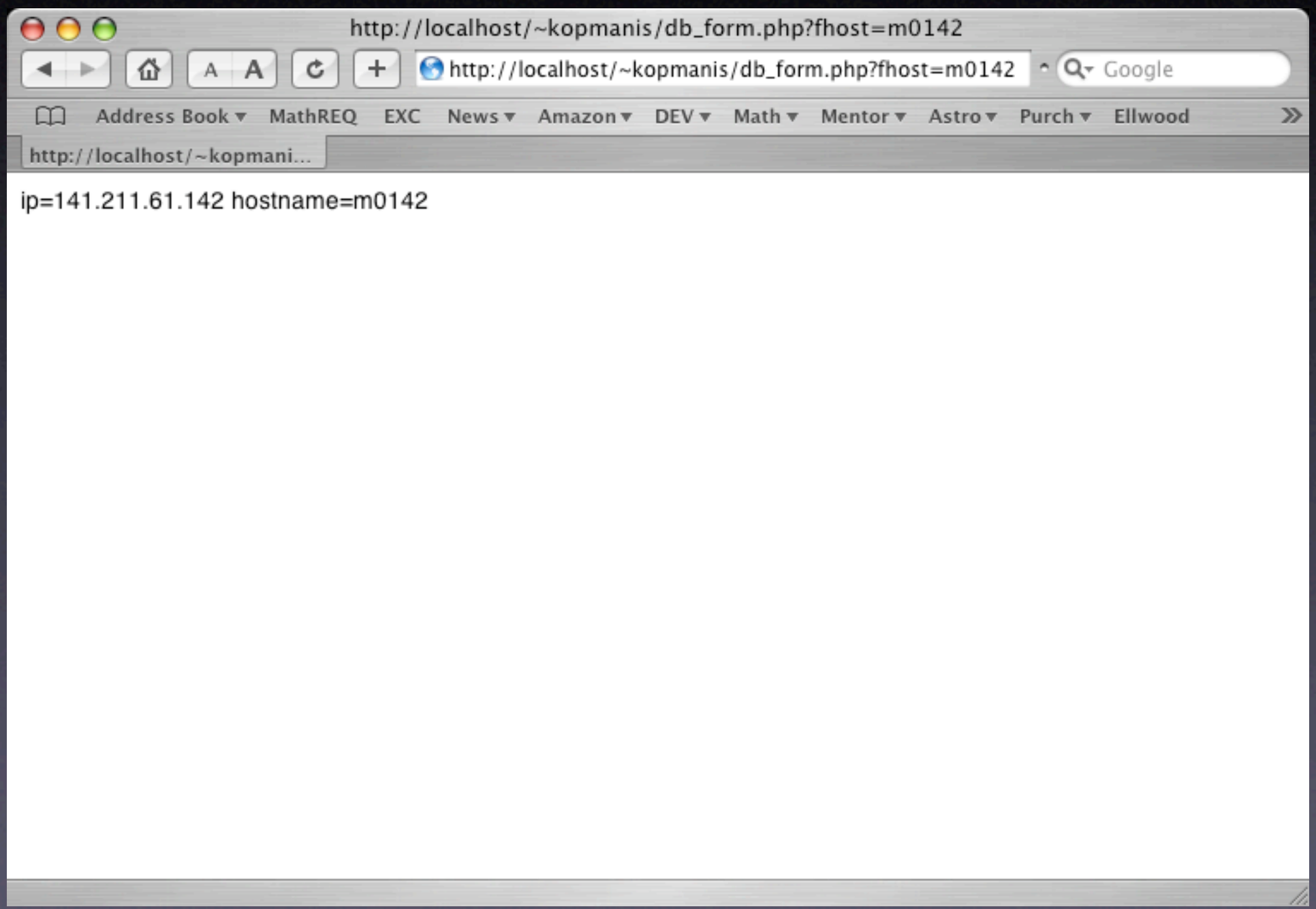
```
<?
#########################
# Make Database connection
$db = mysql_connect("localhost","root","");
mysql_select_db("inventory",$db);

# shows how concatenation can be used to build strings
$sql = "SELECT ipaddr,hostname FROM machines“;
$sql .= “ WHERE hostname='".$_GET['fhost']."'";
$result = mysql_query($sql);

while( $datarow = mysql_fetch_array($result) ) {
  print "ip=".$datarow['ipaddr'];
  print "  hostname=".$datarow['hostname']."<br>\n";
  }

mysql_close($db);
?>
```

db_form.php


http://localhost/~kopmanis/db_form.php?fhost=m0142
http://localhost/~kopmanis/db_form.php?fhost=m0142
Google
Address Book
MathREQ
EXC
News
Amazon
DEV
Math
Mentor
Astro
Purch
Ellwood
http://localhost/~kopmani...
ip=141.211.61.142 hostname=m0142

all_in_one.php

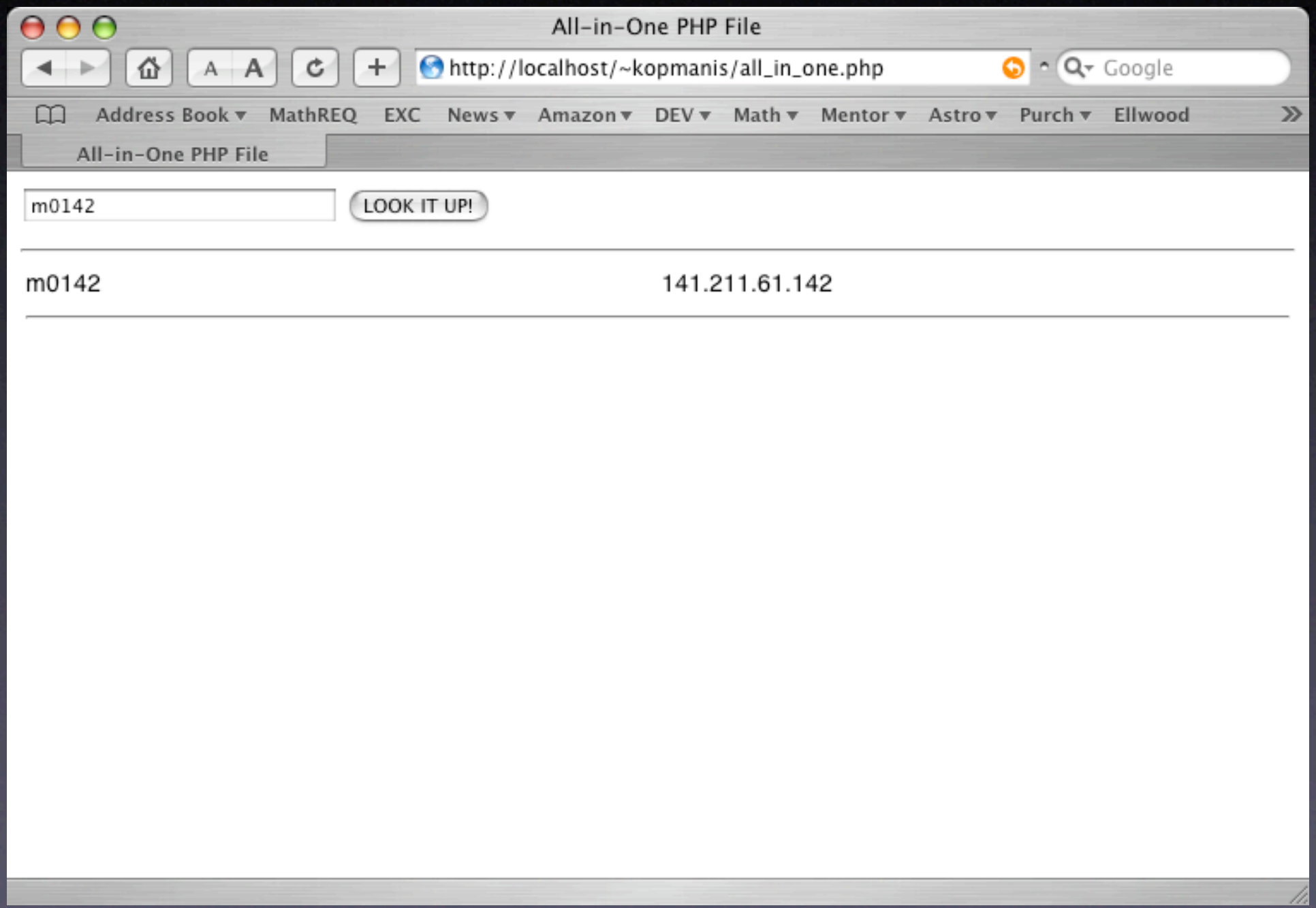
```
<html>
<head><title>All-in-One PHP File</title></head>
<form method=post action="all_in_one.php">
<input type=text name="fhost" value='<?=$_POST[fhost]?>' size=25 maxlength=25>
<input type=submit value=' LOOK IT UP! '>
</form>
<hr>
<table width=100%>
<?
########################
# Make Database connection
$db = mysql_connect("localhost","root","");
mysql_select_db("inventory",$db);

$sql = "SELECT hostname,ipaddr FROM machines WHERE hostname='".$_POST[fhost]."'";
$result = mysql_query($sql);

while( $datarow = mysql_fetch_array($result) ) {
  print "<tr><td width=50%>$datarow['hostname']</td><td width=50%>";
  print $datarow['ipaddr'];
  print "</td></tr>\n";
  }
  print "<tr><td colspan=2><hr></td></tr>\n";

?>
</table>
</html>
```

all_in_one.php



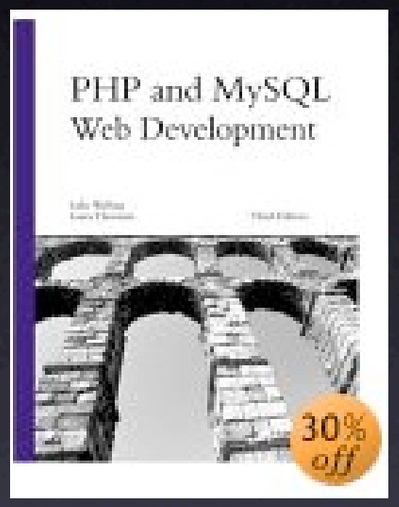
PHP-enabled Sites

Demo

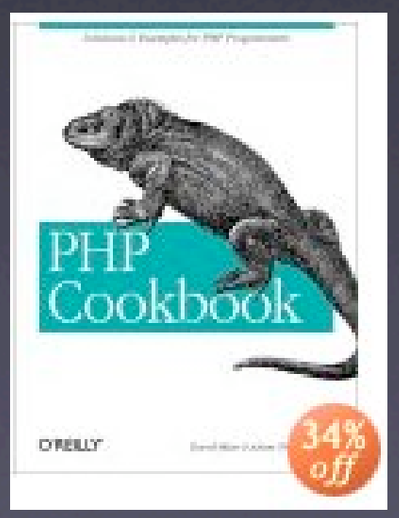
Online Resources

- http://www.mysql.com
  MySQL Home
- http://serverlogistics.com/mysql.php
  Complete MySQL
- http://www.php.net/
  PHP Home page
- http://versiontracker.com
  Where to find CocoaMySQL

Books



PHP and MySQL Web Development
(3rd Edition)
Luke Welling, Laura Thompson
ISBN: 0672326728



PHP Cookbook
David Sklar, Adam Trachtenberg
ISBN: 156592681 1

Q & A

Thanks for coming!

University of Michigan
Mathematics

