ITC 250/CPET 499 Web Systems Nov. 3, 2016 Managing MySQL Database Part 3 of 3

MySQL Topics of Discussion

- More Command-Line Interface
- phpMyAdmin
 - o config.inc.php file : defineing a connection to the MySQL server
- Exporting and Importing Databases via phpMyAdmin
 - http://localhost/phpmyadmin
- Accessing MySQL using PHP Scripts
 - Basic steps
 - Connect MySQL database with PHP scripts
 - Query a database using PHP script
- MySQL Workbench

1. More Command-Line Interface

mysql –u root password mypass;	# login into root with mypass
mysql –u root –h;	# prompt root user to enter mypass

Launch an interactive MySQL Command-Line Session

• Login to "mysql" database in the local host (-h 127.0.0.1), prompt for a password (-p)

```
Administrator@LIN-PC c:\xampp

# cd mysql

Administrator@LIN-PC c:\xampp\mysql

# mysql -h 127.0.0.1 -u root mysql -p

Enter password: ******

Welcome to the MariaDB monitor. Commands end with ; or \g.

Your MariaDB connection id is 2

Server version: 10.1.16-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2016, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input

statement.

MariaDB [mysql]>
```

• SHOW TABLES

```
MariaDB [mysql]> SHOW TABLES;
+-----+
| Tables_in_mysql |
+----+
```

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İ	slow_log	
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Ì	time_zone_transition_type	
Ì	user	
Ì	userdb	
+	++	
3	35 rows in set (0.02 sec)	
M	MariaDB [mysql]>	

References

- Chapter 3 Resetting the Root Password Windows System, <u>https://dev.mysql.com/doc/mysql-windows-excerpt/5.6/en/resetting-permissions-windows.html</u>
- 6.1.4 Server Commands Option, <u>http://dev.mysql.com/doc/refman/5.7/en/server-options.html</u>

2. phpMyAdmin – config.inc.php file

a. Defining connection to the MySQL server

C:\xampp\phpMyAdmin\config.inc.php

• • •

```
/* Authentication type and info */
$cfg['Servers'][$i]['auth_type'] = 'cookie'; //was: 'config'
$cfg['Servers'][$i]['user'] = 'root';
$cfg['Servers'][$i]['password'] = '';
$cfg['Servers'][$i]['extension'] = 'mysqli';
$cfg['Servers'][$i]['AllowNoPassword'] = true;
$cfg['Lang'] = '';
/* Bind to the localhost ipv4 address and tcp */
$cfg['Servers'][$i]['host'] = '127.0.0.1';
$cfg['Servers'][$i]['connect_type'] = 'tcp';
/* User for advanced features */
$cfg['Servers'][$i]['controluser'] = 'pma';
$cfg['Servers'][$i]['controlpass'] = '';
```

- 3. Importing MySQL Databases: Using Command Line
 - Open "art.sql" with notepad or Notepad++
 - This is a phpMyAdmin SQL Dump file
 - Login to phpMyAdmin
 - User name: root
 - Enter password: ******
 - Import "art.sql"
 - In phpMyAdmin, click on the Database tab.
 - Create a database called "art"
 - Click "Import", find and chose the "art.sql", then click "Go"
 - Message: Import has been successfully finished 67 queries executed (art.sql)
 - Click "New" to create another database
 - Import "travel.sql"
 - In phpMyAdmin, click on the Database tab.
 - Create a database called "travel"
 - Click "Operations" to Rename "travel" as "travels"
 - Click "Import", find and chose the "travels.sql", then click "Go"
 - Message: Import has been successfully finished 2867 queries executed (travels.sql)
 - Repeat the same process to Import "bookcrm-comprehensive" database,
 - 0.
 - Message: Import has been successfully finished 1090 queries executed (bookcrmcomprehensive.sql)

Query art.sql database via phpMyAdmin

- In phpMyAdmin, click on the "art" datasbae
- o Click on "SQL"
- o Enter the following command
 - SELECT * from artists;

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Enter the following new query SELECT artworkid, title, yearofwork from artworks where yearofwork < 1600;

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- 4. Accessing MySQL with PHP Scripts for Web-based Application basic steps
- a) Establish a connection to the MySQL database
- b) Check and handle connection error if exist
- c) Execute the SQL query statements for the needed database operations
- d) Prepare the results in the HTML page format
- e) Free computing resources and close connection

An Example: Connect and disconnect MySQL Database with PHP scripts

- Login to MySQL Database as root user
- Create Database (given a database name "experiment")
- Create a Folder in Htdocs (with a database name given above "experiment")
- Create database connection file in PHP (for example db_connection.php)
- Include 'db_connection.php' in your file
- Create a php file (check_connection.php) to check your database connection, include check_connection.php
- Open browser and go to "http://localhost/phpconnecttest/check_connection.php

PHP-MySQL Database Connection Testing

- 1. Prepare PHP scripts
- 2. Save them c:\xampp\htdoc\phpConnectTest
- 3. Open a browser to run the scrip

http://localhost/phpConnectTest/check_connection.php

```
<?php
```

```
/* check_connection.php*/
include "db_connect_functions.php";
```

```
$conn = openConnect();
echo "<b>Database Connected Successfully </b>";
```

```
closeConnect($conn);
echo "<b> Database Disconnected</b>";
?>
```

```
return $connHandler;
```

```
}
```

```
function closeConnect($conn)
{
   $conn -> close();
}
?>
```



Query "user" TBALE within mysql Database

Functions for Executing MySQL Statements using PHP Script

- mysqli_stmt_execute(mysqli_stmt \$stmt), http://php.net/manual/en/mysqli-stmt.execute.php
- Prepare PHP scripts
- Save them c:\xampp\htdoc\phpConnectTest
- Open a browser to run the scrip
- http://localhost/phpConnectTest/userTableQuery.php

```
<?php
/* rootuser config.php */
define('DB_HOST', 'localhost');
define('DB_NAME', 'mysql');
define('DB_PASSWORD', 'givenpass');
define('DB_USER' = 'root');
?>
<?php
/* connectToDB.php */
function connectToDB($DB_HOST, $DB_USER, DB_PASSEORD, DB_NAME)
 {
   $connHandler = new mysqli($DB_HOST, $DB_USER, $DB_PASSWORD,
$DB_NAME)
       or die(" Error connecting to database: ") . mysql_error() .
"";
     return $connHandler;
```

```
}
function closeConnect($conn)
 {
  $conn -> close();
 }
?>
<?php
/* mysql Database, query "user" Table */
include('rootuser_config.php');
include("connectToDB.php");
$conn = openConnect(DB_HOST, DB_USER, DB_PASSWORD, DB_NAME)
   or die(" Error connecting to database: ") . mysql_error() .
"";;
echo "<b>Database Connected Successfully </b><br/>";
/* Ref: http://php.net/manual/en/mysqli-stmt.execute.php */
$query ="SELECT Host, User, Password FROM user;";
// $stmt =mysqli_prepare($conn, $query);
// $results = mysqli_stmt_execute($stmt);
$i =0;
echo "User Table in mysql Database <br>";
echo "Host
            User Password<br/>';
echo "-----<br/>br/>";
if($results = mysqli query($conn, $query))
   while ($row = mysqli_fetch_row($results))
     {
       printf("%s (%s, %s)\n", $row[0], $row[1], $row[2]);
       echo "<br/>';
     }
   mysqli_free_result($results);
   }
/* Close connection */
   closeConnect($conn);
       echo "<b> Database Disconnected</b>";
?>
<?php
if(!@mysql_connect('127.0.0.1', 'root', '*your default password*'))
{
 echo "mysql not connected ".mysql_error();
 exit;
```

}

```
echo 'great work';
?>
```

Query Results Displayed on Web Browser

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Database Disconnected	