

A decorative graphic consisting of several light green hexagons arranged in a cluster on the left side of the slide.

# Lập trình WEB

Đại Học Sài Gòn – Khoa CNTT

**PHP – Lập trình với CSDL**

GV: Phan Thị Kim Loan

## Nội dung tuần trước

1. Cơ chế truyền nhận dữ liệu.
2. Truyền nhận qua phương thức GET
3. Truyền nhận qua phương thức POST
4. Một số ví dụ

- 1.CSDL mySQL - phpMyAdmin
- 2.Lập trình với CSDL mySQL
- 3.Kết nối PHP và CSDL
- 4.Các ví dụ
- 5.Thực hành

# Sử dụng công cụ phpMyAdmin - Xampp

phpMyAdmin: công cụ dạng web-based để quản lý CSDL mySQL

The image displays two overlapping browser windows. The top window shows the 'XAMPP for Windows Version 1.7.0' homepage in Mozilla Firefox. The page includes a navigation menu on the left with links like 'Welcome', 'Status', 'Security', 'Documentation', 'Components', 'phpinfo()', 'Demos', 'CD Collection', 'Biorhythm', 'Instant Art', 'Flash Art', 'Phone Book', 'Excel\_Writer', 'ADODB', 'Tools', 'phpMyAdmin', 'Welcome!', 'PHP Switch', 'Mercury Mail', 'FileZilla FTP', 'Specials', 'PHP PostScript', and 'PHP Paradox'. The main content area welcomes the user and provides instructions on how to start using Apache and MySQL. The bottom window shows the 'phpMyAdmin 3.1.1' interface. It features a top navigation bar with tabs for 'Databases', 'SQL', 'Status', 'Variables', 'Charsets', 'Engines', 'Privileges', 'Processes', 'Export', and 'Import'. The main content area is divided into several sections: 'Actions' (with a 'Create new database' button), 'MySQL localhost' (showing server details like 'Server: localhost via TCP/IP', 'Server version: 5.1.30-community', 'Protocol version: 10', 'User: root@localhost', and 'MySQL charset: UTF-8 Unicode (utf8)'), 'Web server' (showing details like 'Apache/2.2.11 (Win32) DAV/2 mod\_ssl/2.2.11 OpenSSL/0.9.8i mod\_autoindex\_color PHP/5.2.8', 'MySQL client version: 5.1.30', and 'PHP extension: mysql'), and 'phpMyAdmin' (showing version information and links to documentation, wiki, and official homepage). A warning message at the bottom states: 'Your configuration file contains settings (root with no password) that correspond to the default MySQL privileged account. Your MySQL server is running with this default, is open to intrusion, and you really should fix this security hole by setting a password for user 'root'.'

# Tạo mới một Database

**Tên CSDL**

**Click để  
tạo CSDL**

**MySQL localhost**

Create new database ?

webdb Collation Create

MySQL connection collation: utf8\_general\_ci ?

**Interface**

Language : English

Theme / Style: Original

▶ Custom color: Reset

▶ Font size: 82%

# Tạo mới một Database

Server: localhost ▶ Database: webdb

Structure SQL Search Query Export Import

Designer Operations Privileges Drop

✓ Database webdb has been created.

```
CREATE DATABASE `webdb` ;
```

[ Edit ] [ Create PHP Code ]

No tables found in database.

## Tạo CSDL thành công

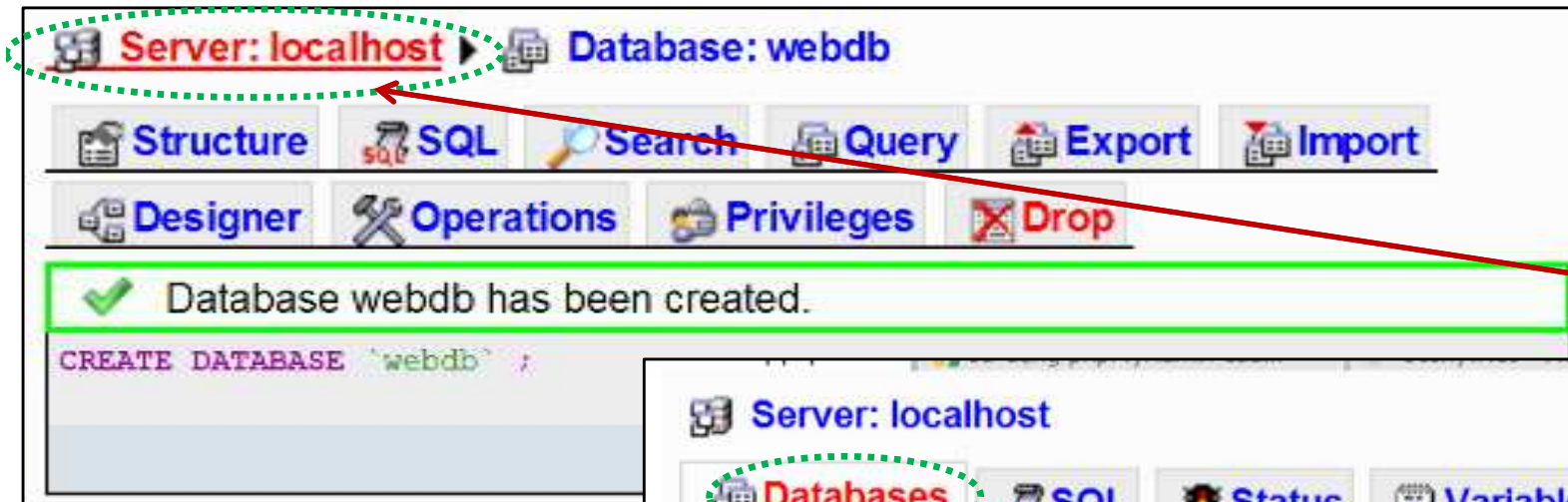
Create new table on database webdb

Name:  Number of fields:

Go

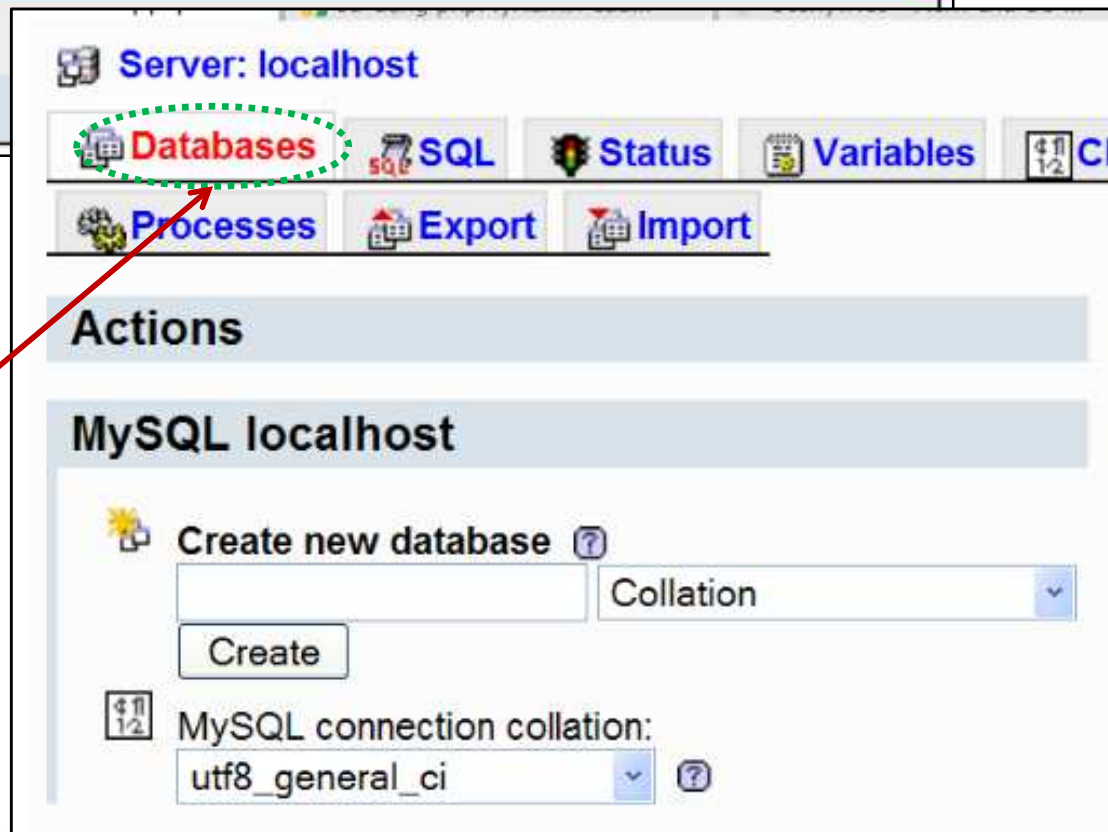


# Database & Privileges



Click

Click



# Database & Privileges

**Databases**

	Database ▲	
<input type="checkbox"/>	cdcol	
<input type="checkbox"/>	information_schema	
<input type="checkbox"/>	mysql	
<input type="checkbox"/>	phpmyadmin	
<input type="checkbox"/>	test	
<input type="checkbox"/>	webauth	
<input checked="" type="checkbox"/>	webdb	
Total: 7		

Check All / Uncheck All

**Click**

**Click**

**Click để sửa hoặc  
tạo user mới**

**Mở cửa  
sổ quản  
lý user**

**Server: localhost**

Databases SQL Status Variables Chars

Processes Export Import

Users having access to "webdb"

User	Host	Type	Privileges	Grant	Action
root	127.0.0.1	global	ALL PRIVILEGES	Yes	
root	localhost	global	ALL PRIVILEGES	Yes	



# Database & Privileges

Change Login Information / Copy User

Login Information

User name: Use text field: **root**

Host: Local localhost

Password: Do not change the pass

Re-type:

Change Login Information / Copy User

Login Information

User name: Use text field: myUser

Host: Local localhost

Password: Use text field: .....

Re-type: .....

Generate Password: Generate Copy

Create a new user with the same privileges and ...

- ☒ ... keep the old one.
- ☐ ... delete the old one from the user tables.
- ☐ ... revoke all active privileges from the old one and delete it afterwards.
- ☐ ... delete the old one from the user tables and reload the privileges afterwards.

Go

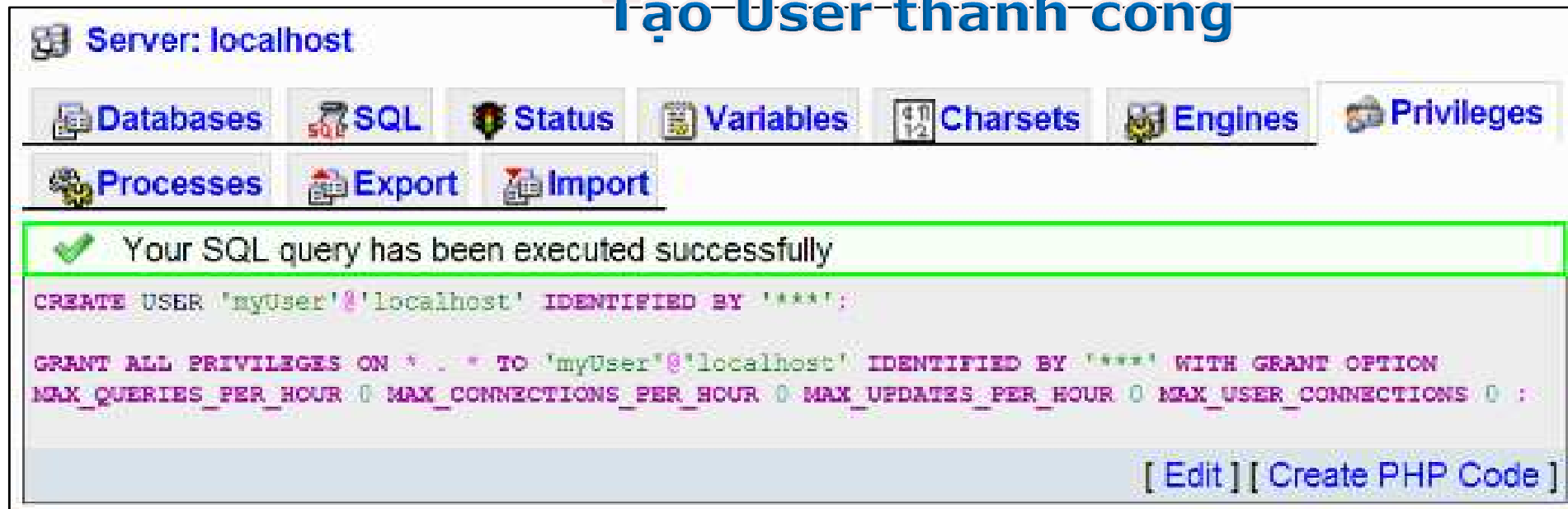
**Đây là user mặc định của Xampp**

**Thay bằng user mới**

**Click để hoàn tất**

# Database & Privileges

## Tạo User thành công



The screenshot shows the MySQL Workbench interface for 'Server: localhost'. The top toolbar includes buttons for Databases, SQL, Status, Variables, Charsets, Engines, Privileges, Processes, Export, and Import. A green message bar at the top states: 'Your SQL query has been executed successfully'. Below this, the SQL query is displayed in a text area:

```
CREATE USER 'myUser'@'localhost' IDENTIFIED BY '****';

GRANT ALL PRIVILEGES ON *.* TO 'myUser'@'localhost' IDENTIFIED BY '****' WITH GRANT OPTION
MAX_QUERIES_PER_HOUR 0 MAX_CONNECTIONS_PER_HOUR 0 MAX_UPDATES_PER_HOUR 0 MAX_USER_CONNECTIONS 0 ;
```

At the bottom right of the SQL editor, there are links for '[ Edit ]' and '[ Create PHP Code ]'.

Sau khi có CSDL bạn có thể dùng nó với thông số như sau:

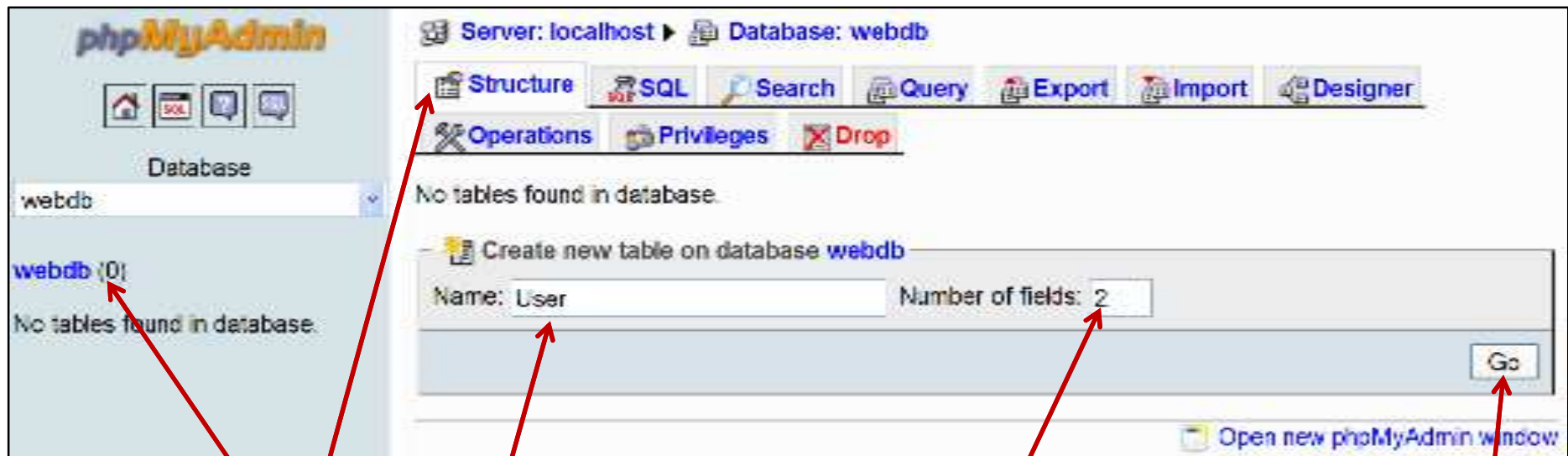
```
$db_host = 'localhost' ;
```

```
$db_name = 'webdb' ;
```

```
$db_user = 'myUser' ;
```

```
$db_pass = '123456' ;
```

# Tạo một Table trong Database



**Trong Database : webdb – Tab: Structure**

**Tạo 1 table: User**

**Có tổng cộng 2 hay 3 trường (fields)**

**Click GO**

# Tạo một Table trong Database

Server: localhost • Database: webdb • Table: User

Field	Username	Password	Name
Type	VARCHAR	VARCHAR	VARCHAR
Length/Values	128	128	255
Default	None	None	None
Collation			
Attributes			
Null	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Index	PRIMARY		
A_I	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
MIME type			
Browser transformation			
Transformation options			

Table comments:

PARTITION definition:

Storage Engine: ☐ MyISAM

Collation:

Save | Go | Add | Help |

**Thiết lập thuộc tính cho từng trường → Click GO**

# Tạo một Table trong Database

The screenshot shows the phpMyAdmin interface for creating a new table named 'User' in the 'webdb' database. The table structure is defined with the following fields:

Field	Type	Length/Values	Default	Collation
Username	VARCHAR	128	None	
Password	VARCHAR	128	None	
Name	VARCHAR	255	None	
	INT		As defined	

Below the table structure, there are sections for 'Table comments:', 'Storage Engine:' (set to InnoDB), and 'Collation:'. A 'PARTITION definition:' section is also present but empty.

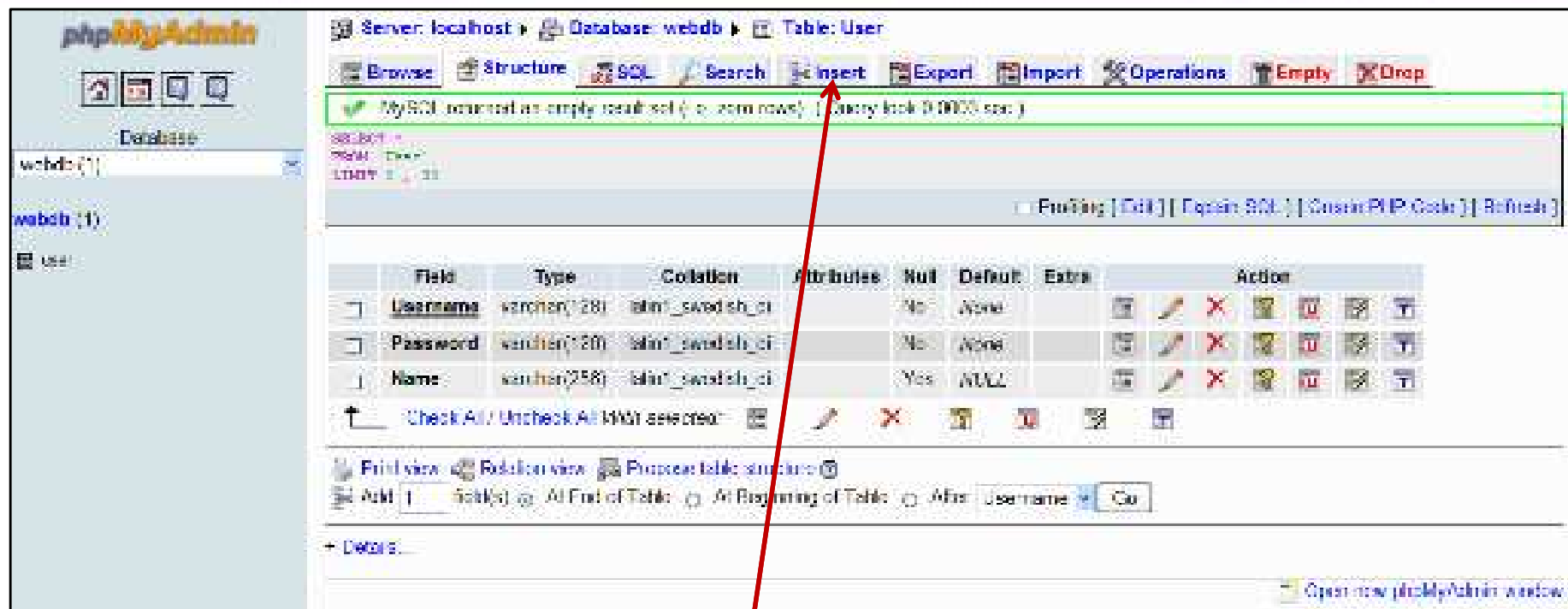
At the bottom right, the 'Save' button is circled in red, indicating the final step to create the table. Other buttons include 'Go', 'Add', and 'Go'.

**Kiểm tra lại tất cả thông tin của các Fields trong Table.**

**→ Click **SAVE** để hoàn tất quá trình tạo Table.**



# Tạo một Table trong Database



Đã hoàn tất quá trình tạo cấu trúc Table : **User**.

→ Bước kế tiếp là thêm dữ liệu vào Table.

→ Click chọn Tab : **Insert**

# Tạo một Table trong Database

Nhập dòng dữ liệu đầu tiên trong Table : **User**.

Server: localhost Database: webdb Table: User

Database: webdb (1)

webdb (1)

user

Ignore

Field	Type	Function	Null	Value
Username	varchar(128)			abc
Password	varchar(128)			123
Name	varchar(256)		<input type="checkbox"/>	Black Mountain

Go

Field	Type	Function	Null	Value
Username	varchar(128)			xyz
Password	varchar(128)			456
Name	varchar(256)		<input checked="" type="checkbox"/>	Piglet

Go

Insert as new row and then Go back to previous page

1

Go Reset

Restart insertion with 2 rows

<sup>1</sup> Use TAB key to move from value to value, or CTRL+arrows to move anywhere

Open new phpMyAdmin window

Click **GO** để hoàn tất nhập liệu.

# Tạo một Table trong Database

The screenshot shows a database management interface with a toolbar at the top containing buttons for Browse, Structure, SQL, Search, Insert, Export, Import, Operations, Empty, and Drop. Below the toolbar, a status bar indicates "Showing rows 0 - 1 (2 total, Query took 0.0004 sec)". The SQL query editor contains the following code:

```
SELECT *  
FROM `user`  
LIMIT 0 , 30
```

Below the query editor, there are options for displaying the results: "Show : 30 row(s) starting from record # 0" and "in horizontal mode and repeat headers after 100 cells". The "Sort by key:" dropdown is set to "None".

The query results are displayed in a table with the following columns: Username, Password, and Name. The table contains two rows of data:

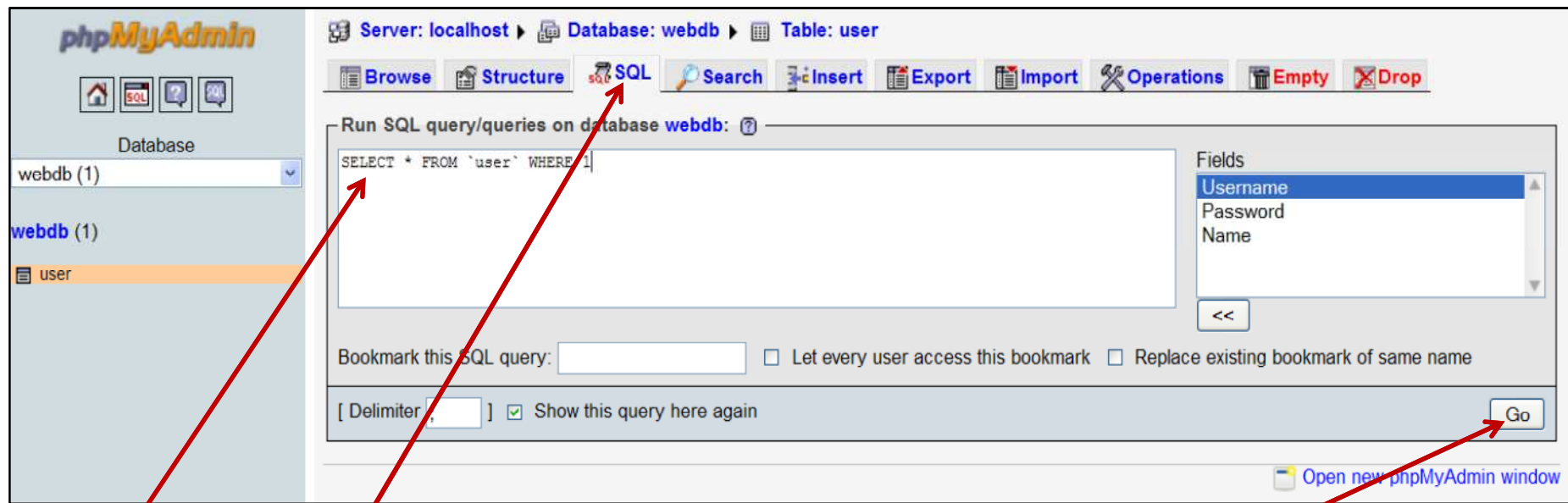
	Username	Password	Name
<input type="checkbox"/>	abc	123	Black Mountain
<input type="checkbox"/>	xyz	456	Piglet

A red dashed box highlights the two rows of data. A red arrow points from the text "2 records đã được thêm vào" to the second row of the table. Below the table, there are options for "Check All / Uncheck All" and "With selected:". The "Show : 30 row(s) starting from record # 0" and "in horizontal mode and repeat headers after 100 cells" options are repeated below the table.

At the bottom, the "Query results operations" section includes buttons for "Print view", "Print view (with full texts)", "Export", and "CREATE VIEW".

**Dữ liệu đã được thêm vào Table : User.**

# Tạo một Table trong Database



Có thể dùng các câu truy vấn trong Tab **SQL** để chèn dữ liệu

Các câu truy vấn mySQL được viết trong hộp thoại **RunSQL**

Click **GO** để thực thi câu truy vấn.

# Export & Import Database

The screenshot shows the phpMyAdmin interface for exporting a database. The left sidebar shows the database 'webdb' and its table 'user'. The main area is titled 'View dump (schema) of database'. The 'Export' tab is selected. The 'Export' section on the left has a dropdown menu showing 'user' and a list of export formats: CodeGen, CSV, CSV for MS Excel, Microsoft Excel 2000, Microsoft Word 2000, LaTeX, Open Document Spreadsheet, Open Document Text, PDF, SQL (selected), Texy! text, XML, and YAML. The 'Options' section on the right has several checkboxes: 'Add custom comment into header' (unchecked), 'Comments' (checked), 'Enclose export in a transaction' (unchecked), 'Disable foreign key checks' (unchecked), 'SQL compatibility mode' (set to NONE), 'Structure' (checked), 'Add DROP TABLE / VIEW / PROCEDURE / FUNCTION / EVENT' (unchecked), 'Add IF NOT EXISTS' (checked), 'Add AUTO\_INCREMENT value' (checked), 'Enclose table and field names with backquotes' (checked), 'Add CREATE PROCEDURE / FUNCTION / EVENT' (unchecked), 'Add into comments' (unchecked), 'Creation/Update/Check dates' (unchecked), 'Relations' (unchecked), 'MIME type' (unchecked), 'Data' (checked), 'Complete inserts' (checked), 'Extended inserts' (checked), 'Maximal length of created query' (set to 50000), 'Use delayed inserts' (unchecked), 'Use ignore inserts' (unchecked), 'Use hexadecimal for BLOB' (checked), and 'Export type' (set to INSERT). At the bottom, the 'Save as file' section is checked, with 'File name template' set to 'TestDB' and 'remember template' checked. The 'Compression' is set to 'None'. A red arrow points to the 'Go' button at the bottom right.

Server: localhost Database: webdb

Structure SQL Search Query Export Import Designer Operations Privileges Drop

View dump (schema) of database

Export

Select All / Unselect All

user

Options

Add custom comment into header (in splits lines)

☒ Comments

☐ Enclose export in a transaction

☐ Disable foreign key checks

SQL compatibility mode: NONE

☒ Structure

☐ Add DROP TABLE / VIEW / PROCEDURE / FUNCTION / EVENT

☒ Add IF NOT EXISTS

☒ Add AUTO\_INCREMENT value

☒ Enclose table and field names with backquotes

☐ Add CREATE PROCEDURE / FUNCTION / EVENT

Add into comments

☐ Creation/Update/Check dates

☐ Relations

☐ MIME type

☒ Data

☒ Complete inserts

☒ Extended inserts

Maximal length of created query: 50000

☐ Use delayed inserts

☐ Use ignore inserts

☒ Use hexadecimal for BLOB

Export type: INSERT

Save as file

File name template<sup>1</sup>: TestDB ( ☒ remember template )

Compression: ☒ None ☐ "zipped" ☐ "gzipped"

Click

Chọn Export Database

Chọn các phần export

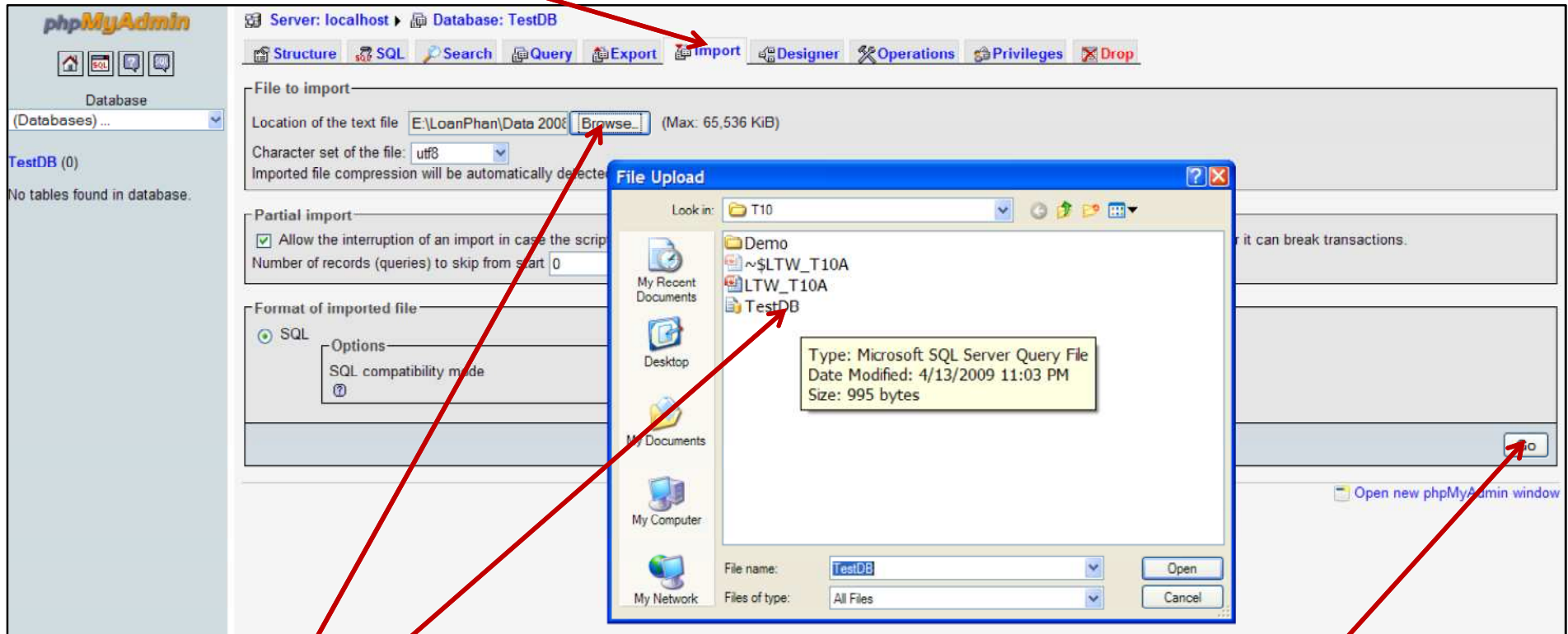
Chọn dạng export

Đặt tên file export



# Export & Import Database

## Chọn Import Database

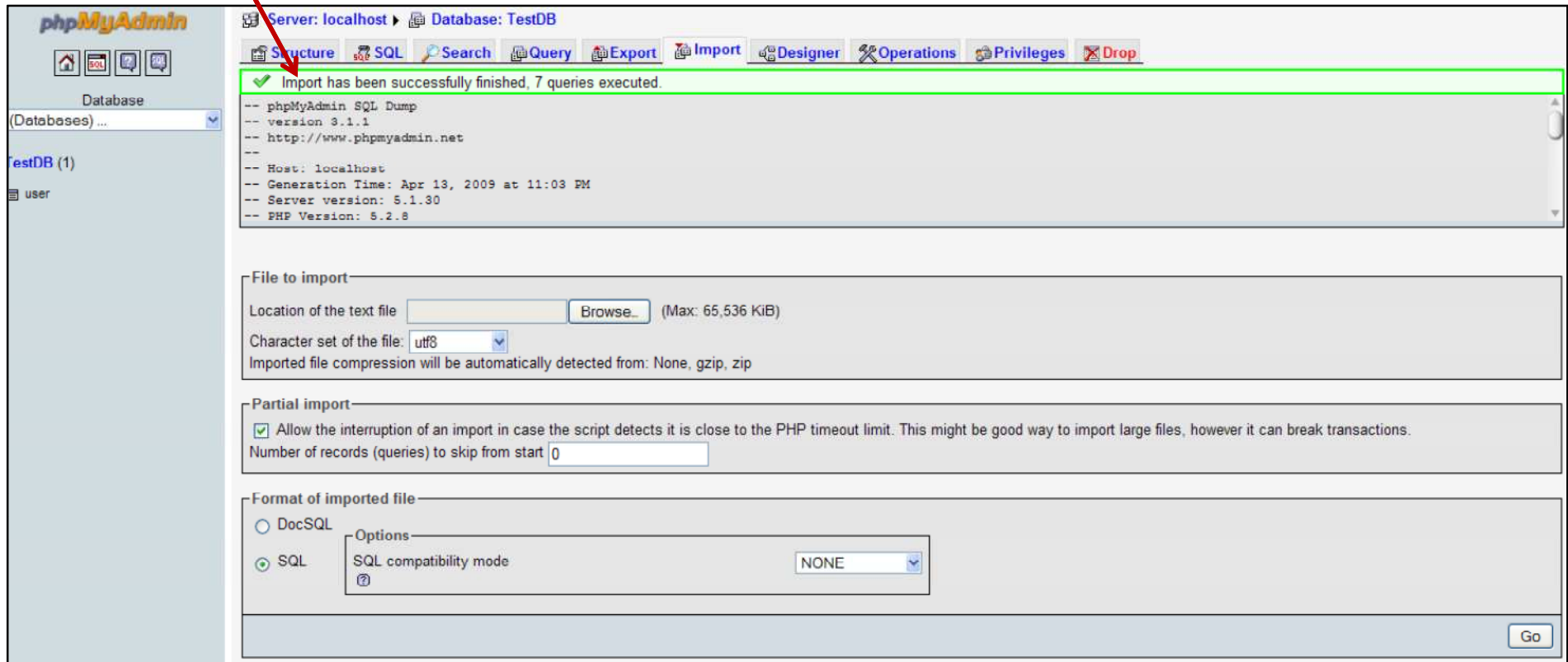


**Chọn File TestDB.sql**

**Click**

# Export & Import Database

## Hoàn tất quá trình Import Database



The screenshot shows the phpMyAdmin interface with the 'Import' tab selected. A green message bar at the top states: 'Import has been successfully finished, 7 queries executed.' Below this, the SQL dump content is visible, including metadata like version 3.1.1 and generation time. The 'File to import' section has a 'Browse...' button. The 'Partial import' section has a checked checkbox for 'Allow the interruption of an import...' and a text input for 'Number of records (queries) to skip from start' set to 0. The 'Format of imported file' section has 'SQL' selected with 'SQL compatibility mode' set to 'NONE'. A 'Go' button is at the bottom right.

Server: localhost Database: TestDB

Structure SQL Search Query Export Import Designer Operations Privileges Drop

Import has been successfully finished, 7 queries executed.

```
-- phpMyAdmin SQL Dump
-- version 3.1.1
-- http://www.phpmyadmin.net
--
-- Host: localhost
-- Generation Time: Apr 13, 2009 at 11:03 PM
-- Server version: 5.1.30
-- PHP Version: 5.2.8
```

File to import

Location of the text file  Browse... (Max: 65,536 KiB)

Character set of the file: utf8

Imported file compression will be automatically detected from: None, gzip, zip

Partial import

☒ Allow the interruption of an import in case the script detects it is close to the PHP timeout limit. This might be good way to import large files, however it can break transactions.

Number of records (queries) to skip from start

Format of imported file

☐ DocSQL

☒ SQL

Options

SQL compatibility mode

Go

## Các bước thao tác CSDL trong PHP

1. Kết nối với CSDL
2. Xây dựng câu truy vấn dữ liệu
3. Thực thi câu truy vấn
4. Xử lý kết quả trả về từ câu truy vấn
5. Ngắt kết nối CSDL

# Tạo kết nối CSDL

- Kết nối mySQL và chọn CSDL

- ✓ resource `mysql_connect`

- ([string host], [string username], [string password])

- ✓ int `mysql_select_db` (string database, [resource connection] )

- Ví dụ:

```
<?php
```

```
    $connection = mysql_connect( "localhost" , "myUser" , "123456" );
```

```
    mysql_select_db ( "webdb", $connection );
```

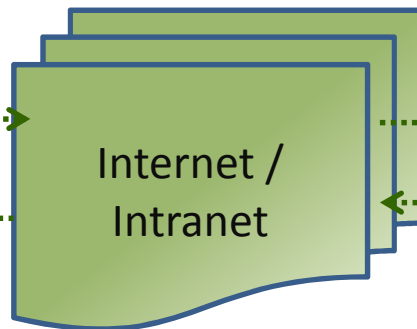
```
?>
```

# Xây dựng câu truy vấn

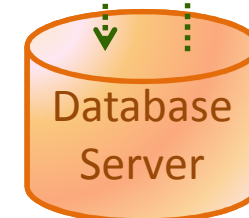
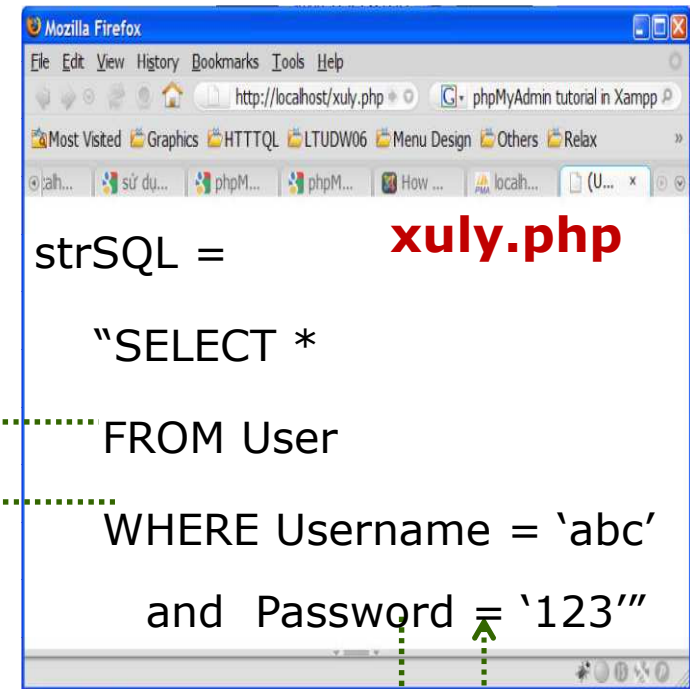
Textbox: **txtUsername** = abc

Password Box: **txtPassword** = 123

Web Browser



Yêu cầu trang **xuly.php**





# Xây dựng câu truy vấn (tt)

Thao tác	Câu truy vấn SQL
INSERT	strSQL = "INSERT INTO Users (UserName, Password) VALUES ('abc, '123')"
DELETE	strSQL = "DELETE FROM Users WHERE UserName = 'xyz' "
UPDATE	strSQL = "UPDATE Users SET Password = '456' WHERE UserName = 'abc' "
SELECT	strSQL = "SELECT * FROM Users WHERE UserName = 'abc' "

# Thực thi câu truy vấn

- resource `mysql_query`

(string SQL\_command, [resource connection])

```
<?php
```

```
$strSQL = "INSERT INTO Users (UserName, Password)  
          VALUES ('abc', '123')";
```

```
mysql_query($strSQL);
```

```
$strSQL="SELECT * FROM Users";
```

```
$result=mysql_query($strSQL);
```

```
?>
```

## Xử lý kết quả trả về

- Hiển thị dữ liệu kết quả trả về:
  - Sử dụng hàm
    - `$row = mysql_fetch_array($result);`
  - Số lượng field
    - `$num = mysql_fetch_fields($result);`
  - Truy cập đến từng field
    - `echo $row["UserName"];` hay `echo $row[0];`

## Ngắt kết nối dữ liệu

- `int mysql\_close([resource connection]);`
- Tự động thực thi khi kết thúc mã lệnh

# Kết nối các thao tác

```
<?php
```

```
//1. Ket noi CSDL
```

```
$connection = mysql_connect("hostname","username","password");
```

```
mysql_select_db("database_name",$connection);
```

```
//2. Chuan bi cau truy van & 3. Thuc thi truy van
```

```
$strSQL = "SELECT * FROM TableName";
```

```
$result = mysql_query($strSQL);
```

```
//4. Xu ly du lieu tra ve
```

```
While ($row = mysql_fetch_array($result))
```

```
{
```

```
    for ($i = 0; $i < mysql_num_fields($result); $i++)
```

```
        echo $row[$i];
```

```
}
```

```
//5. Dong ket noi
```

```
mysql_close($connection);
```

```
?>
```



# Các hàm PHP truy xuất CSDL mySQL

- [mysql\\_connect](#) : kết nối CSDL mySQL
- [mysql\\_select\\_bd](#) : Chọn DB làm việc ( sau khi kết nối CSDL xong)
- [mysql\\_query](#): thực thi câu SQL, trả về true/false hay resource (rds)
- [mysql\\_close](#) : ngắt kết nối CSDL
- [mysql\\_set\\_charset](#) : chỉ định sử dụng Unicode với CSDL
- [mysql\\_real\\_escape\\_string](#) : chuẩn hoá chuỗi PHP trong CSDL
- [mysql\\_free\\_result](#) : giải phóng vùng nhớ sử dụng CSDL
- [mysql\\_fetch\\_array](#) : trả về dòng recordset dưới dạng mảng
- [mysql\\_fetch\\_row](#)
- [mysql\\_num\\_rows](#)
- <http://vn2.php.net/manual/en/book.mysql.php>

# Xử lý lỗi

- int `mysql_error`(resource connection);
- string `mysql_error`(resource connection);

`<?php`

```
function showerror( ) {  
    die("Error" . mysql_errno( ) . " : " . mysql_error( ));  
}
```

```
if (!( $connection =  
    @ mysql_connect( "localhost", "fred", "shhh" ) ) )  
    die("Couldnot connect");
```

```
if (!(mysql_select_db("winestor", $connection)))  
    showerror( );
```

`?>`

# Include File

```
<?php
    $hostName= "localhost";
    $databaseName= "bookstoreDB";
    $username = "root";
    $password = "root";
?>
```

**db.inc**

```
<?php
    function showError( )
    {
        die("Error" . mysql_errno( ) . " : " . mysql_error( ));
    }
?>
```

**error.inc**

```
<?php
    include 'db.inc';
    include 'error.inc';
?>
```

## Một số ví dụ

- Tìm kiếm và sắp xếp
  - Tìm kiếm ([searchbooks.htm](#))
  - Xuất dữ liệu thoả điều kiện ([showbooks.php](#))
  - Sắp xếp records theo tên trường ([sortbooks.php](#))
  - Cho phép người dùng chọn cột sắp xếp ([selectsortbooks.php](#))
- Tổng hợp Thêm, Xóa, Sửa
  - Add ([addbook.php](#))
  - Delete ([deletebook.php](#))
  - Edit ([editbook.php](#))

## Tham khảo

- <http://helpdeskgeek.com/how-to/phpmyadmin-how-to/>
- <http://vn2.php.net>
- <http://vn2.php.net/manual/en/book.mysql.php>
- Google ....



A decorative graphic consisting of several light green hexagons arranged in a cluster on the left side of the slide.

# **Bài thực hành**

Đại Học Sài Gòn – Khoa CNTT

**PHP – Lập trình với CSDL**

GV: Phan Thị Kim Loan

## Bài thực hành PHP – Lập trình với CSDL

- Code lại các bài đã minh hoạ
- Thao tác CSDL bằng công cụ phpMyAdmin

A decorative graphic consisting of several light green hexagons arranged in a cluster on the left side of the slide.

# Thank you !

**[kimloanpt@gmail.com](mailto:kimloanpt@gmail.com)**

**GV: Phan Thị Kim Loan**