Connect Database with PHP Website

ITCS 201 Web Programming Part II

Outline for Today

- Introduction

- Connection

- Implement SQL
  - INSERT
  - UPDATE
  - DELETE
  - SELECT

Introduction

- This chapter will talk about the way to manage MySQL database by using PHP.

- PHP has lots of function and method to do operation with MySQL such as creating new database, creating new table, managing data in the table, etc.

Connection

- Before you can access data in a database, you must create a connection to the database.

- In PHP, this will be easily done with the mysql_connect() function.

- For creating the connection, syntax is:

```
$con = mysql_connect(servername,username,password);
```

- Description:

Parameter	Description
servername	Optional. Specifies the server to connect to. Default value is "localhost:3306"
username	Optional. Specifies the username to log in with. Default value is the name of the user that owns the server process
password	Optional. Specifies the password to log in with. Default is ""

Connection (Cont.)

- For closing the connection, syntax is:

```
mysql_close($con);
```

Don't forget to close the connection every time you want to connect to another database with the same variable to prevent error.

Example

```php
<?php
$con = mysql_connect("localhost","Chris","asdf007");
if (!$con)
  {
  die('Could not connect: ' . mysql_error());
  }

// your code

mysql_close($con);
?>
```

Implement SQL

- We will assume that we have this table:

Students
Firstname
Lastname
Age

Implement SQL (INSERT, UPDATE, DELETE)

- First, you have to select database, syntax is:

```
mysql_select_db(database name, $con);
```

- Next, you insert your SQL Insert Command, syntax is:

```
mysql_query("INSERT INTO Students (FirstName, LastName,
Age) VALUES ('Peter', 'Parker', '23')");
```

- Finally, the new record will be added to the Students Table.

- This syntax can be used with both UPDATE & DELETE command.

Example (INSERT)

```php
<?php
$con = mysql_connect("localhost","Chris","asdf007");
if (!$con)
  {
  die('Could not connect: ' . mysql_error());
  }

mysql_select_db("University", $con);

mysql_query("INSERT INTO Students (FirstName, LastName, Age)
VALUES ('Peter', 'Parker', '23')");

mysql_query("INSERT INTO Students (FirstName, LastName, Age)
VALUES ('Mark', 'Henry', '33')");

mysql_close($con);
?>
```

Could you guess what will happen in the database?

Result

Table: Student

Firstname	Lastname	Age
Peter	Parker	23
Mark	Henry	33

Example (UPDATE)

```php
<?php
$con = mysql_connect("localhost","Chris","asdf007");
if (!$con)
  {
  die('Could not connect: ' . mysql_error());
  }

mysql_select_db("University", $con);

mysql_query("UPDATE Students SET Age = '36'
WHERE FirstName = 'Peter' AND LastName = 'Parker'");

mysql_close($con);
?>
```

Could you guess what will happen in the database?

Result

Table: Student

Firstname	Lastname	Age
Peter	Parker	36
Mark	Henry	33

Example (DELETE)

```php
<?php
$con = mysql_connect("localhost","Chris","asdf007");

if (!$con)
  {
  die('Could not connect: ' . mysql_error());
  }

mysql_select_db("University", $con);

mysql_query("DELETE FROM Students WHERE LastName='Parker'");

mysql_close($con);
?>
```

Could you guess what will happen in the database?

Result

Table: Student

Firstname	Lastname	Age
Mark	Henry	33

Implement SQL (SELECT)

- When you would like to select data from the database, syntax is:

```
$result = mysql_query("SELECT * FROM Students");
```

- The record that matches the condition will be selected and kept in the variable **$result**.

Example

```php
<?php
 $con = mysql_connect("localhost","Chris","asdf007");
if (!$con)
   {
   die('Could not connect: ' . mysql_error());
   }

mysql_select_db("University", $con);

$result = mysql_query("SELECT * FROM Students");

while($row = mysql_fetch_array($result))
   {
   echo $row['FirstName'] . " " . $row['LastName'];
   echo "<br />";
   }

mysql_close($con);
?>
```

Could you guess what will happen on the screen?

Result

Mark Henry