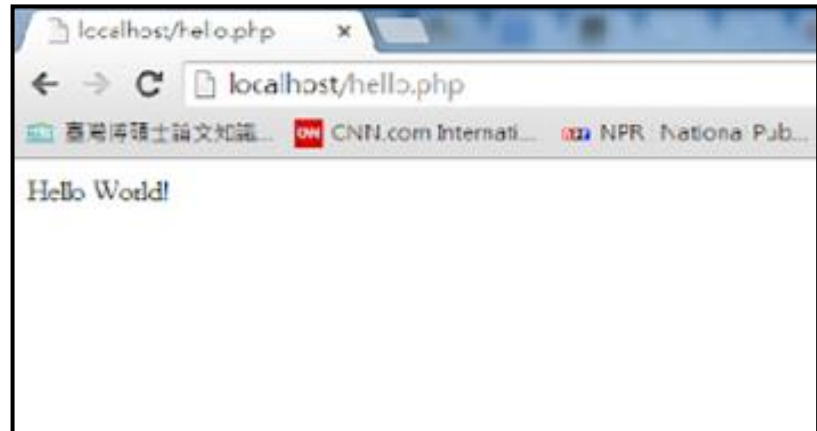http://rapidpurple.com/purpleblog/wp-content/uploads/2011/11/php_mysql_logo.png

Lesson 3: Server-Side Programming

PHP

- PHP is a server-side scripting language designed for web development
- Ex: hello.php

```php
<?php
    echo "Hello World!";
?>
```
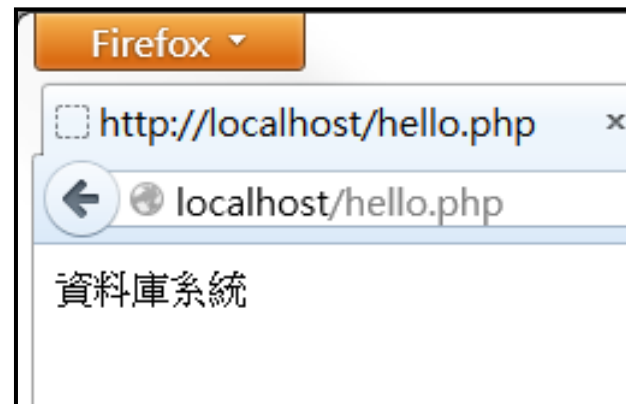
PHP

- Three type comments
  - #
  - //
  - /*…*/
- Variable

```php
<?php
  # 這是註解
  echo "Hello World!"; //這也是註解
  /*這還是註解*/
?>
```

  - Just use it ($variable_name) without declaration
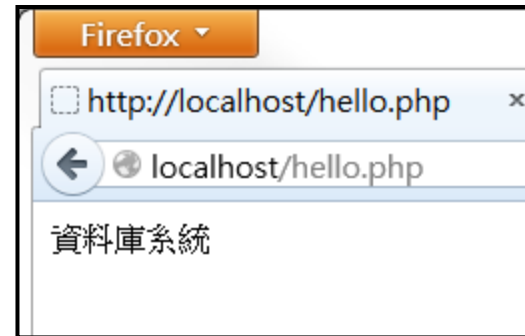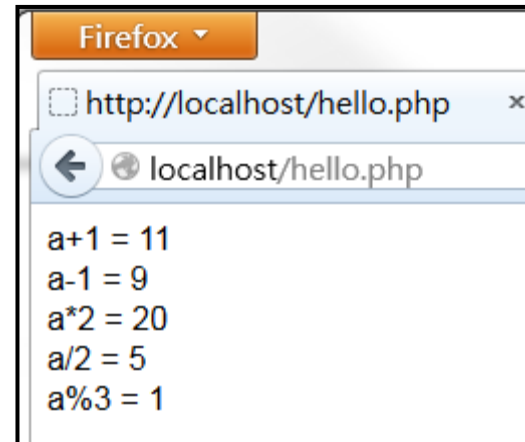 - Also, we don't need to set the data type

```php
<?php
  $db = "資料庫";
  $db = "資料庫系統";
  echo $db;
?>
```

Firefox ▼

http://localhost/hello.php   ✕

← ⊕ localhost/hello.php

資料庫系統

PHP

- Use . to connect string

```php
<?php
  $a = "資料庫";
  $b = "系統";
  echo $a.$b;
?>
```

Firefox
http://localhost/hello.php   ×
← localhost/hello.php
資料庫系統

- Use these operators for numeric variables: + - * / %

```php
<?php
  $a = 10;
  echo "a+1 = ".($a+1)."<BR>";
  echo "a-1 = ".($a-1)."<BR>";
  echo "a*2 = ".($a*2)."<BR>";
  echo "a/2 = ".($a/2)."<BR>";
  echo "a%3 = ".($a%3)."<BR>";
?>
```

Firefox
http://localhost/hello.php   ×
← localhost/hello.php
a+1 = 11
a-1 = 9
a*2 = 20
a/2 = 5
a%3 = 1

PHP

- Loop
  - for, while, do...while
  - Similar with C/C++ language
- Array

```php
<?php
  $arr[1]="資料庫";
  $arr[2]="系統";
?>
```

```php
<?php
  $arr=array( "資料庫", "系統");
?>
```

```php
<?php
  $arr=array(1=>"資料庫", 2=>"系統");
?>
```

```php
<?php
  $arr=array("database"=>"資料庫",
"system"=>"系統");
?>
```
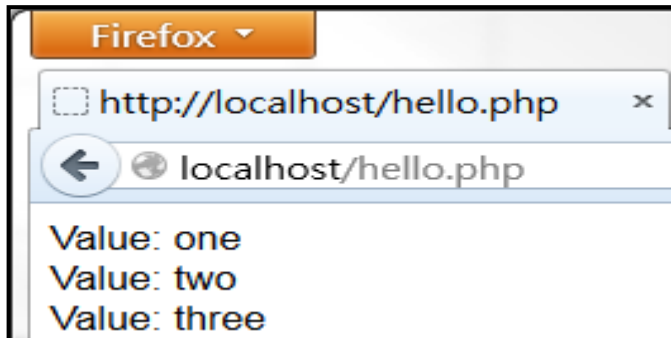
PHP

- Foreach

```php
<?php
  $arr=array("one", "two", "three");

  foreach ($arr as $value)
    echo "Value: ".$value."<br>";
?>
```
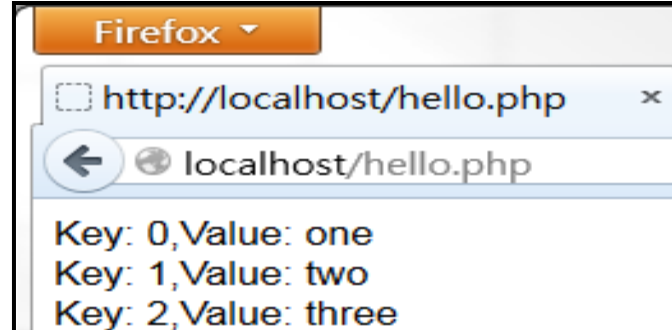
```php
<?php
  $arr=array("one", "two", "three");

  foreach ($arr as $key=>$value){
    echo "Key: ".$key.",."."Value:
".$value;
    echo "<br>";
  }
?>
```

Firefox ▾

☐ http://localhost/hello.php   ✕

← localhost/hello.php

Value: one
Value: two
Value: three

Firefox ▾

☐ http://localhost/hello.php   ✕

← localhost/hello.php

Key: 0,Value: one
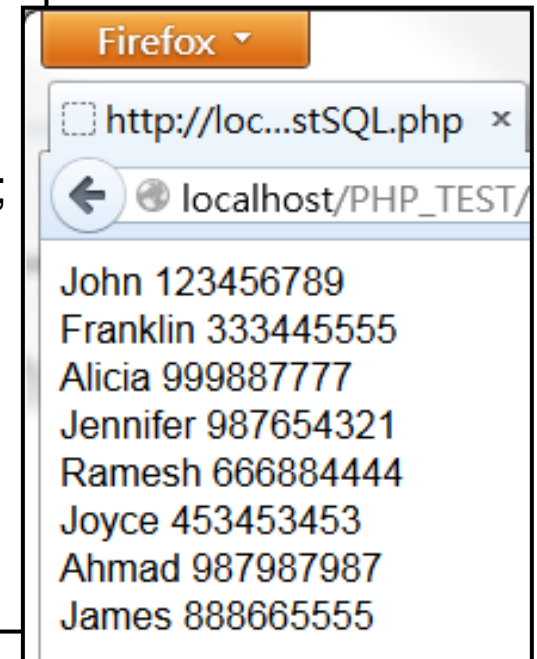Key: 1,Value: two
Key: 2,Value: three

PHP+MySQL

- SELECT * FROM employee

```php
<?php
  $con = mysql_connect("localhost","root","kdd");
  if (!$con)
    die('Could not connect: ' . mysql_error());
  mysql_select_db("company", $con);

  $result = mysql_query("SELECT * FROM employee");
  while($row = mysql_fetch_array($result))
  {
    echo $row['Fname'] . " " . $row['Ssn'];
    echo "<br />";
  }
  mysql_close($con);
?>
```

Firefox ▾

☐ http://loc...stSQL.php ×

← 🌐 localhost/PHP_TEST/

John 123456789
Franklin 333445555
Alicia 999887777
Jennifer 987654321
Ramesh 666884444
Joyce 453453453
Ahmad 987987987
James 888665555

PHP+MySQL

- SELECT count(*) as total FROM employee

```php
<?php
  $con = mysql_connect("localhost","root","kdd");
  if (!$con)
      die('Could not connect: ' . mysql_error());
  mysql_select_db("company", $con);

  $result = mysql_query("SELECT count(*) as total FROM employee");
  while($row = mysql_fetch_array($result))
      echo "Total count of employee : ".$row['total']."<br>";
  mysql_close($con);
?>
```


Firefox
http://localh...T/testSQL.php ×
localhost/PHP_TEST/testSQL

Total count of employee : 8
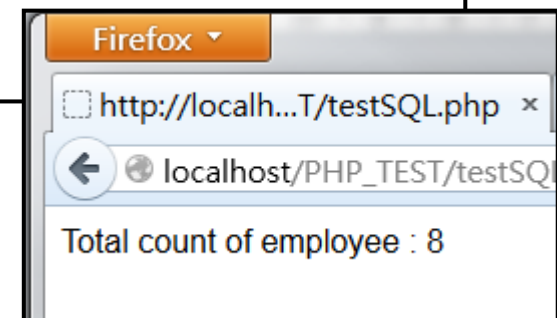
PHP+MySQL

- INSERT INTO employee VALUES('Richard','K','Marini',653298653,'1962-12-30','98 Oak Forest, Katy, TX','M',37000,987654321,4)

```php
<?php
  $con = mysql_connect("localhost","root","kdd");
  if (!$con)
     die('Could not connect: ' . mysql_error());
  mysql_select_db("company", $con);

  mysql_query("INSERT INTO employee
  VALUES('Richard','K','Marini',653298653,'1962-12-30','98 Oak Forest,
  Katy,TX','M',37000,987654321,4)");
  mysql_close($con);
?>
```

PHP+MySQL

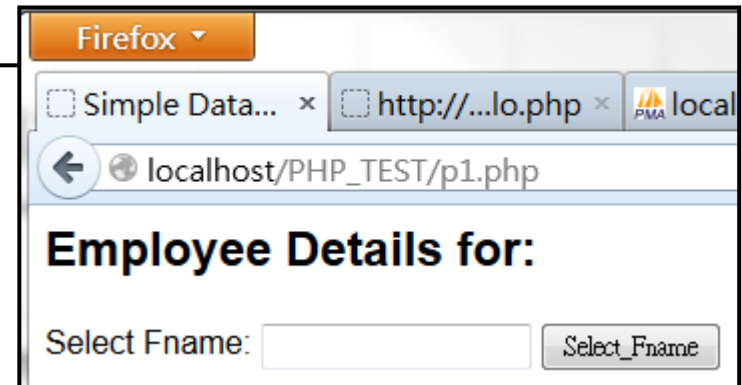- DELETE FROM employee WHERE Fname = 'Richard'

```php
<?php
   $con = mysql_connect("localhost","root","kdd");
   if (!$con)
       die('Could not connect: ' . mysql_error());
   mysql_select_db("company", $con);

   mysql_query("DELETE FROM employee WHERE Fname = 'Richard'");
   mysql_close($con);
?>
```

Form Processing: Example #1

p1.php

```
<html>
<head>
<title>Simple Database Access</title>
</head>
<body>
<h2>Employee Details for:</h2>
    <form action="p1post.php" method="post">
        Select Fname: <input type="text" name="Fname">
        <input type="submit" value = "Select_Fname">
    </form>
</body>
</html>
```

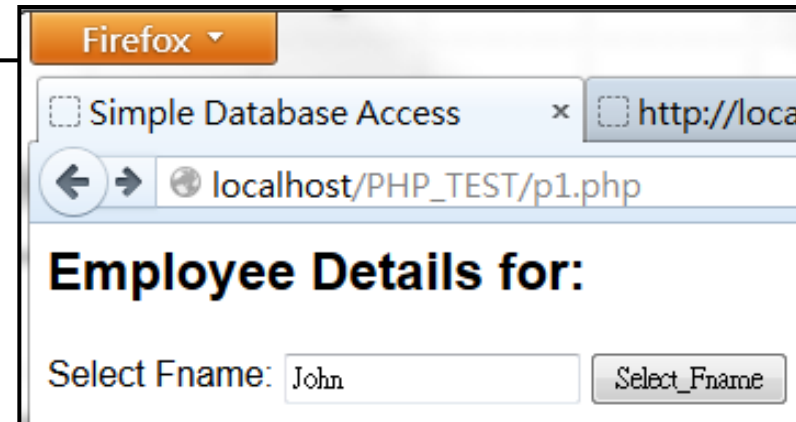# Form Processing: Example #1

p1post.php

```
<html>
<head>
<title>Simple Database Access</title>
</head>
<body>
<h4>Employee Details for:</h4>
<?php
   $con = mysql_connect("localhost","root","kdd");
   if (!$con)
      die('Could not connect: ' . mysql_error());
   mysql_select_db("company", $con);

   $query="SELECT * FROM employee WHERE Fname = '" $_POST["Fname"] "'";
   $result = mysql_query($query);
   $num=mysql_num_rows($result);
…
```

Firefox

Simple Database Access   ×   http://loca

localhost/PHP_TEST/p1.php

Employee Details for:

Select Fname: John   Select_Fname
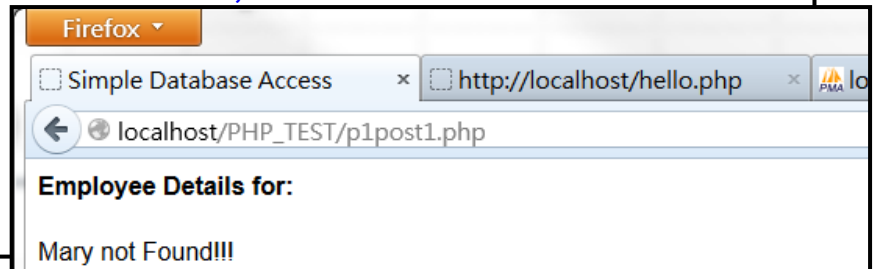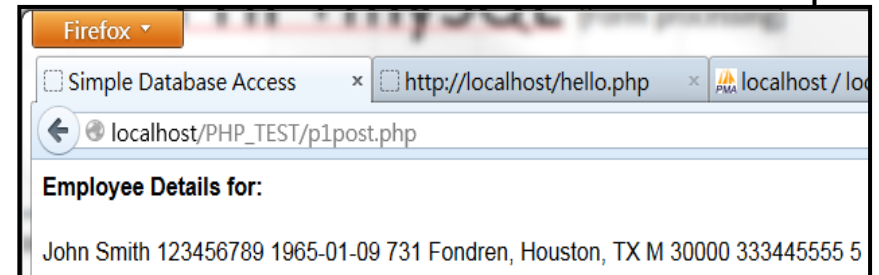
Form Processing: Example #1

p1post.php

```php
…
   if($num != 0){
       while($row = mysql_fetch_array($result)){
           echo $row['Fname']." ".$row['Lname']." ".$row['Ssn']." ".$row['Bdate']
           ." ".$row['Address']." ".$row['Sex']." ".$row['Salary']."
".$row['Super_ssn']
           ." ".$row['Dno']."<br>";
       }
   }

   else{
       echo $_POST["Fname"]. " not Found!!!"."<br>";
   }
   mysql_close($con);
?>
</form></body></html>
```

Firefox

Simple Database Access × http://localhost/hello.php × localhost / lo

localhost/PHP_TEST/p1post.php

Employee Details for:

John Smith 123456789 1965-01-09 731 Fondren, Houston, TX M 30000 333445555 5

Firefox

Simple Database Access × http://localhost/hello.php × lo

localhost/PHP_TEST/p1post1.php

Employee Details for:

Mary not Found!!!

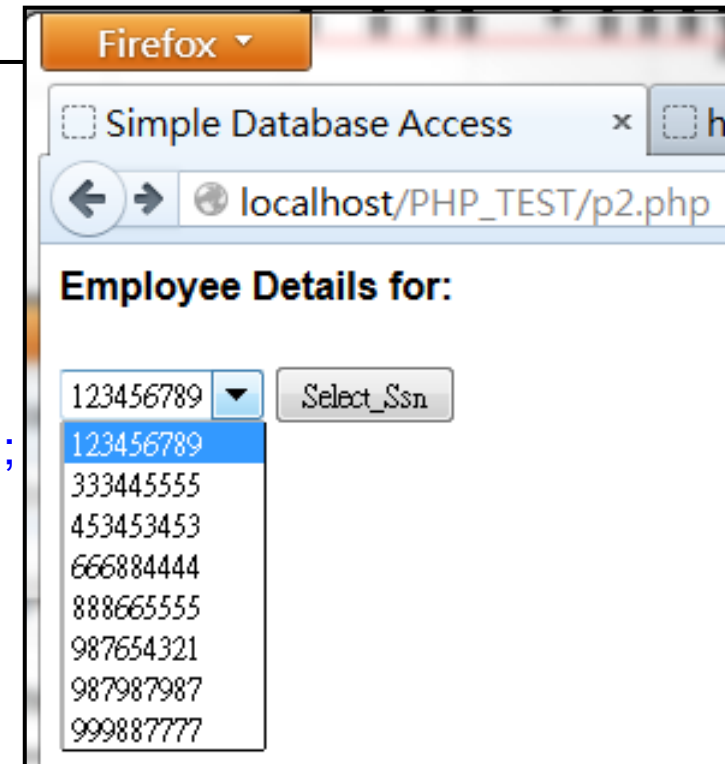# Form Processing: Example #2

p2.php

```php
<html>
<head>
<title>Simple Database Access</title>
</head>
<body>
<?php
    $con = mysql_connect("localhost","root","kdd");
    if(!$con)
        die('Could not connect: ' . mysql_error());

    mysql_select_db("company", $con);
    $query="SELECT Ssn FROM employee";
    $result=mysql_query($query);
    $num=mysql_numrows($result);
    mysql_close($con);
?>
…
```
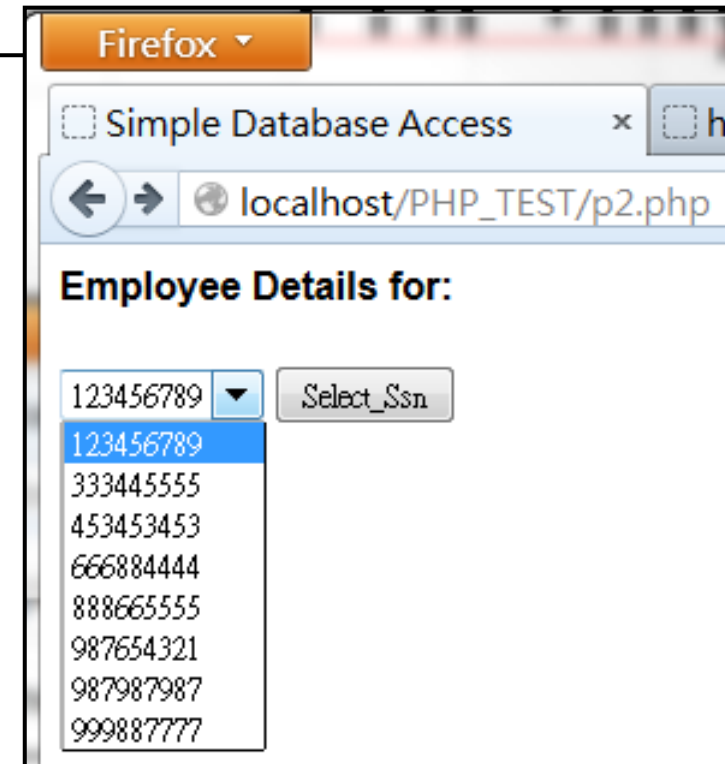
Firefox

Simple Database Access   ×   h

localhost/PHP_TEST/p2.php

Employee Details for:

123456789 ▼   Select_Ssn

123456789
333445555
453453453
666884444
888665555
987654321
987987987
999887777

Form Processing: Example #2

p2.php

```
…
<h4>Employee Details for:</h4>
<form method="post" action="p2post.php">
   <select name="ssn">
      <?php
         $i=0;
         while ($i < $num) {
            $ssn=mysql_result($result,$i,"Ssn");
            echo "<option>",$ssn,"</option>";
            $i++;
         }
      ?>
   </select>
   <input type="submit" value="Select_Ssn">
</form>
</body>
</html>
```

Firefox ▾

☐ Simple Database Access   ×   ☐ h

← →   🌐 localhost/PHP_TEST/p2.php

Employee Details for:

123456789 ▾   Select_Ssn
123456789
333445555
453453453
666884444
888665555
987654321
987987987
999887777

Form Processing: Example #2
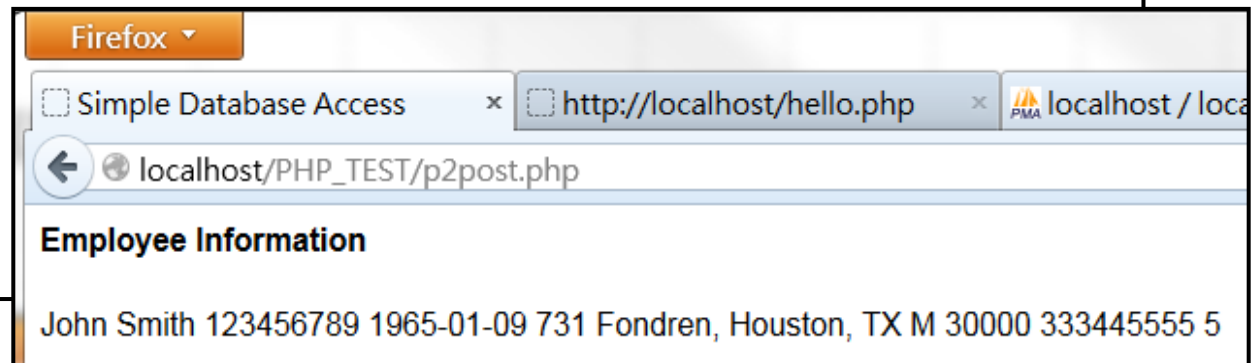
p2post.php

```
<html>
<head>
<title>Simple Database Access</title>
</head>
<body>
<h4>Employee Information</h4>
<?php
   $con = mysql_connect("localhost","root","kdd");
   if (!$con)
      die('Could not connect: ' . mysql_error());
   mysql_select_db("company", $con);
…
```

Form Processing: Example #2

p2post.php

```
…
    $query="SELECT * FROM employee WHERE Ssn=".$_POST['ssn'];
    $result=mysql_query($query);
    while($row = mysql_fetch_array($result))
    {
        echo $row['Fname']." ".$row['Lname']." ".$row['Ssn']." ".$row['Bdate']
        ." ".$row['Address']." ".$row['Sex']." ".$row['Salary']." ".$row['Super_ssn']
        ."  ".$row['Dno']."<br>";
    }
    mysql_close($con);
?>
</body>
</html>
```

Firefox

Simple Database Access   ×   http://localhost/hello.php   ×   localhost / loca

localhost/PHP_TEST/p2post.php

Employee Information

John Smith 123456789 1965-01-09 731 Fondren, Houston, TX M 30000 333445555 5