PHP and Forms

Submit Button

```
<input type="submit" />
// defines a submit button
```

A submit button is used to send form data to a server.

The data is sent to the page specified in the form's action attribute.

The file defined in the action attribute usually does something with the received input

ALWAYS use a Submit Button for Forms in PHP

(For the coursework : 'Submit' should ONLY be used for the PHP Form)

Reset

```
<input type="reset" />
```

will reset a 'Submit' Form

Resets the form to its original position; clears all input fields

If NOT using 'Submit' :

- add a "Clear" button – and add a function to reset each relevant field (e.g. a clients-side javascript form)

Server Interaction

To interact with the Server ......

Form will contain input fields, e.g. text fields, checkboxes, select lists, submit button etc.

```
<form action="" method="get" >
  <input type .../>...
</form>
```

When the form is submitted (using a SUBMIT button) the data from the input fields is submitted :

- To the URL specified as value of action.
- Using the HTTP method specified as value of method
  - e.g. GET or POST.
- There usually is a process set up on the server which "processes" this data.

Get and Post Methods

In simple terms,

GET method :

- the input values are passed as part of the URL.

POST method:

- the information is sent to the server as part of the data body and will not be visible in the URL box in the user's browser.

If you don't specify the method, GET is taken by default.

Get Method

```
<html>
<head>
<title>Get Ex1</title>
</head>
<body>
<form action="get_Ex1_Result.php" method="get” >
Name: <input type="text" name="name">
<br/>
<input type="submit" value="Submit" >
</form>
</body>
</html>
```

$_GET Function

accesses values sent using the GET method

- e.g $_GET["name"];
- Form or querystring
- Can combine with HTML code ….

```
Your Name is : <?php echo $_GET["name"]; ?>
Welcome <?php echo $_GET["fname"]; ?>.
You are <?php echo $_GET["age"]; ?> years old!
```

values visible in address bar
limited in size

```
<html>
<head>
 <meta charset="utf-8">
 <title>Get Ex1</title>
</head>
<body>
Your Name is : <?php echo $_GET["name"]; ?>
<br/>
Thanks for using our site
<br/>
</body>
</html>
```

Get Method …. URL Address

http://localhost:19592 / get_Ex1_Result.php?name=Brian
http://localhost:19592
get_Ex1_Result.php?name=Brian

- Name of file ? values passed to file

When to use GET?

Can view values – so not very secure
GET may be used for sending non-sensitive data.
Note: GET should NEVER be used for sending passwords or other sensitive information!
But can bookmark page – so can be used for Search
Can also change values in the URL

- For example – can change 'name'

```
<body>
<h2> Enter Name and Total </h2>
<h2> You will get a 10 pound  discount if the total is over 20 pounds</h2>
<form action= "get_Ex2_RESULT.php"  method= "get“ >
Name :  <input type="text" name="Name"><br>
Total :  <input type="text" name="Total"><br>
<input type="submit" value="Submit"><br>
</form>
</body>
```

```
<?php
   $total = $_GET["Total"];
   $discount = 10;
if (is_numeric( $total ))
{
   if ($total > 20) {
       $newtotal = $total - $discount;
      }
}
else
{
  $newtotal = "invalid ";
}
?>
<?php echo $_GET["Name"]; ?>    .... Thanks for your Order
<br/>
  We can now confirm your discount
<br/>
<p>
Order Total was <?php echo $total; ?> so Discount  is .....  <?php echo $discount; ?>
New Total is .....  <?php echo $newtotal; ?>
```

http://localhost:19592 /
get_Ex2_RESULT.php ? Name=Brian&Total=30
Can change ‘Name’ And ‘Total’

Examples of using GET :

- Amazon Search
- Forums
- etc

POST method

The information is sent to the server as part of the data body and will not be visible in the URL box in the user's browser.

Same Structure as ‘GET’ ….- BUT URL is empty

When to use POST?

Information sent from a form with the POST method is invisible to others (all names/values are embedded within the body of the HTTP request) and has no limits on the amount of information to send.

However, because the variables are not displayed in the URL, it is NOT possible to bookmark the page.

Developers prefer POST for sending form data.

POST method

Only have to change :

```
method="get”  to .....   method="post"
echo $_GET["name"];  to ....  echo $_POST["name"];
```

Post Method

```
<form action=“post_Ex1_Result.php" method="post">
Name: <input type="text" name="name">
<br/>
<input type="submit" value="Submit" >
</form>
```

Post Method

```
Your Name is : <?php echo $_POST["name"]; ?>
<br/>
Thanks for using our site
```

URL Address :

- http://localhost:19592 / post_Ex1_Result.php

-> No values displayed – more secure !!

$_REQUEST Function

Can access $_GET, $_POST, and $_COOKIE

```
Welcome <?php echo $_REQUEST ["fname"]; ?>!<br />
You are <?php echo $_REQUEST["age"]; ?> years old.
```

PHP_Self

The $_SERVER["PHP_SELF"] is a super global variable that returns the filename of the currently executing script.

So, the $_SERVER["PHP_SELF"] sends the submitted form data to the page itself, instead of jumping to a different page.

This way, the user will get error messages on the same page as the form.

- So we can use a single page

htmlspecialchars()

The htmlspecialchars() function converts special characters to HTML entities.

This means that it will replace HTML characters such as < and > with < and >.

This prevents attackers from exploiting the code by injecting HTML or Javascript code (Cross-site Scripting attacks) in forms.

- Refer to the following for detailed description :
- http://www.w3schools.com/php/php_form_validation.asp

We will examine the various parts of this page:

```
//htmlspecialchars - This converts HTML tags to special characters
//$_SERVER["PHP_SELF - This returns the current filename
<form method="post" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>">
  ....
  Form fields
  ....
</form>
```

process Form data

```
<?php
// define variables and set to empty values
$Fname = "";
$Sname = "";
$Full = "";

if ($_SERVER["REQUEST_METHOD"] == "POST")
// checks that Form has been submitted - using Submit button
{
  $Fname = $_POST["firstname"];
  $Sname = $_POST["surname"];
  $Full = "Your Full Name is " .  $Fname  .  " " .  $Sname;
  // create a string - string must be created within PHP code
}
?>
```

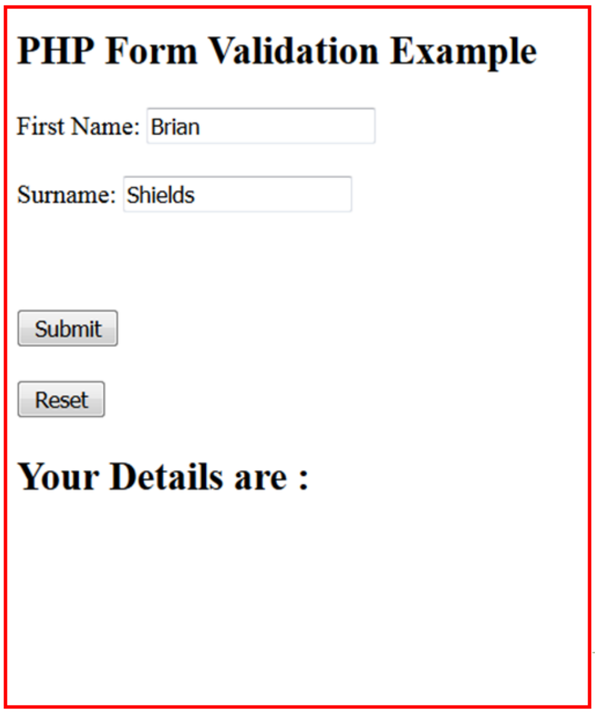
display values

```
<?php
echo "<h2>Your Details are :</h2>";
echo $Fname;
echo "<br>";
echo $Sname;
echo "<br>";
echo $Full;
echo "<br>";
?>
```

Will output each value
Note that the <h2> line will ALWAYS be output
The other values will ONLY be displayed when they contain text

- That is, when the form has been submitted

Before ' Submit' is clicked :

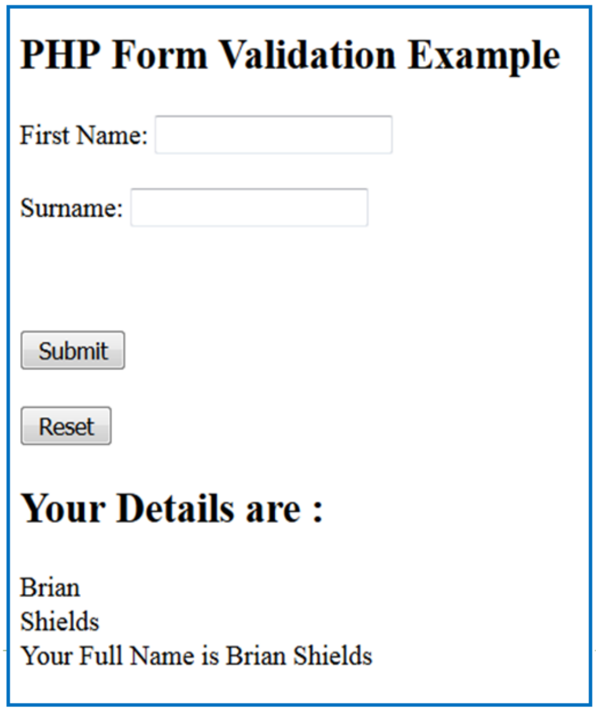

PHP Form Validation Example

First Name: Brian

Surname: Shields

Your Details are :

After ' Submit' is clicked :


PHP Form Validation Example

First Name:

Surname:

Your Details are :

Brian
Shields
Your Full Name is Brian Shields

PHP Syntax

PHP file (.php) normally contains static html tags with embedded PHP scripting blocks which when executed on server produce html dynamically

A PHP script starts with

PHP Scripting block:

```
<?php ...
  php code
?>
```

Semicolons are statement separators

- MUST always use Semicolons !!!!!

Comments are indicated by:

- // - single line
- /* ... */ - multi-line

Hello World - HelloWorld.php

echo used to output text onto a web page:

```
<html>
  <body>
      <h1> PHP Example (This is HTML ) </h1>

      <?php
      echo "Hello World (This is PHP)";
      ?>

  </body>
</html>
```

The php file MUST be run on a Web Server to execute the PHP code – e.g WebMatrix

Note the Server Address – for example :

- localhost:43702/...... /HelloWorld.php

Server Address (URL)

If it is run on the Client only:

- PHP code will NOT be executed
- Will ONLY view HTML