

PHP

PHP – Images, lotto example

Primary source: <https://www.w3schools.com/php/>

Internet Programming 2, Lesson 9

May 2024

Some pointers wrt current progress:

[A] PHP scripts should be in the same file as the form:

```
action="<?php echo $_SERVER["PHP_SELF"];?>"
```

[B] Execute the PHP Script only if the form was submitted:

```
if ($_SERVER["REQUEST_METHOD"] == "POST") {  
    // script code  
}
```

[C] Check that mandatory fields contain data: set error message to display next to form input box

```
if (empty($_POST["name"])) {  
    $nameErr = "Name is required";  
} else {  
    $name = $_POST["name"];  
}
```

[D] Avoid \$_SERVER["PHP_SELF"] Exploits :

```
function test_input($data) {  
    $data = trim($data);  
    $data = stripslashes($data);  
    $data = htmlspecialchars($data);  
    return $data;  
}
```

[E] Retaining form data in the event of an error:

```
Surname: <input type="text" name="surname" value="<?php echo $surname;?>">
```

ImgEg1.php – Resources folder

Demonstrates the display of an image on a web page using (1) HTML `` tag, and (2) PHP `echo` statement.

PHP script file must be in the same folder at the image it uses – for now.

Recall that alt, height and width of image should always be set (previously explained), but not done here, because used merely for demonstration purposes

Review “how the web works” – client – server – PHP engine (1st lesson!).

```
<body>
<p>This image is displayed on the page by an HTML <i>img</i> tag:</p>
<img src = "atemp2.jpg"/>
<br />
<?php
$fName="atemp2.jpg";
echo "This image is displayed on the page by a PHP <i>echo</i> statement:<br />";
echo "<img src = $fName />";
?>
</body>
```

randomNumEg1.php – Resources folder

Generates and displays 6 integers in the range 1 to 49, inclusive of end points.

```
<?php
    for($i=1; $i<=6;$i++){
        $aNum = mt_rand(1,49);
        echo $aNum . " | ";
    }

?>
```

randomImgEg1.php – Resources folder

Generates and displays 6 integers in the range 1 to 49, inclusive of end points. Uses a graphic (image file) to display

```
<?php
    for($i=1; $i<=6;$i++){
        $aNum = mt_rand(1,49);
        $fileName = $aNum . ".png";
        echo "<img src = '$fileName' />";
    }

?>
```

lottoV1.php

Generate and display 6 integers (use graphic files) and a bonus number – don't store numbers

```
<?php
```

```
// generate 6 random numbers and display on web page - use images for the display - note how the  
// file name is formed
```

```
for($i=1; $i<=6;$i++){  
    $aNum = mt_rand(1,49);  
    $fileName = $aNum . ".png";  
    echo "<img src = '$fileName' />";  
}
```

```
// generate and display the bonus ball - use a range of (1,20)
```

```
echo "<br/>Bonus Ball<br />";  
$aNum = mt_rand(1,20);  
$fileName = $aNum . "b.png";  
echo "<img src = '$fileName' />";
```

```
?>
```

lottoV2.php

Generate and display 6 integers (use graphic files) and a bonus number –stored in an array

<?php

```
// generate the numbers and store in an array - store the bonus ball in element 0
$lotto = array();
for($i=1; $i<=6;$i++){
    $aNum = mt_rand(1,49);
    $lotto[$i] = $aNum;
    // we will check for duplicates in a later version, for now just store the value in the array
}
// generate and store the bonus ball - use a range of (1,20)
$aNum = mt_rand(1,20);
$lotto[0] = $aNum;           // store in first element

// now display the numbers stored in the array to the web page
for($i=1; $i<=6;$i++){
    $fileName = $lotto[$i] . ".png";
    echo "<img src = '$fileName' />";
}
// display the bonus ball
$fileName = $lotto[0] . "b.png";
echo "<br/>Bonus Ball<br />";
echo "<img src = '$fileName' />";
```

?>

lottoV3.php

Generate and display 6 integers (use graphic files) and a bonus number– stored in an array

Ensures that no duplicate numbers exists.

Use the following function to check if number already exists – if so, generate a new number

```
function numExists($n){
    global $lotto;                // need to access an array declared outside the function
    $found = false;
    for($k = 1; $k <=6; $k++){    // scans the entire array, even if number already found - still works, but
        // you should rewrite this loop, using a while loop with a combined/compound condition
        if ($lotto[$k] == $n){
            $found = true;
        }
    }
    return $found;
} // of numExists
```

See *lottoV3.php* for full code.

Exercise: Update the above code to include the following features:

(1) Display the graphics (numbers) in a table, so that there is some space in-between numbers;

(2) display the numbers for at least 4 draws – use a static variable to display the draw number

Save as *lottoV4.php*