

# Lab 3-2. Functions

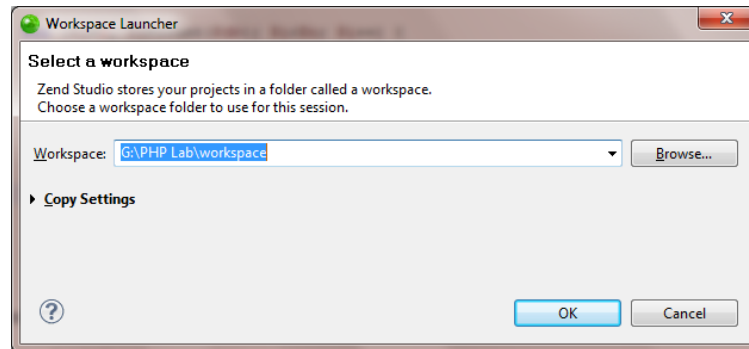
Prepared: TrangNTT

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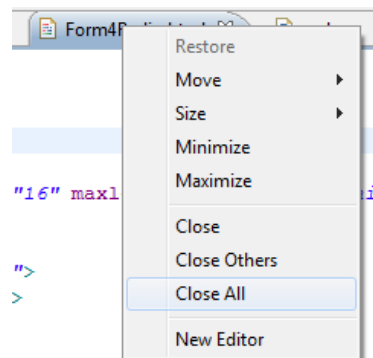
## 2.1. Create a PHP project

### Step 1. Open Zend Studio 7.0

- Select Start → All Programs → Zend Studio – 7.0.0 → Zend Studio – 7.0.0
- Choose OK to confirm the workspace.

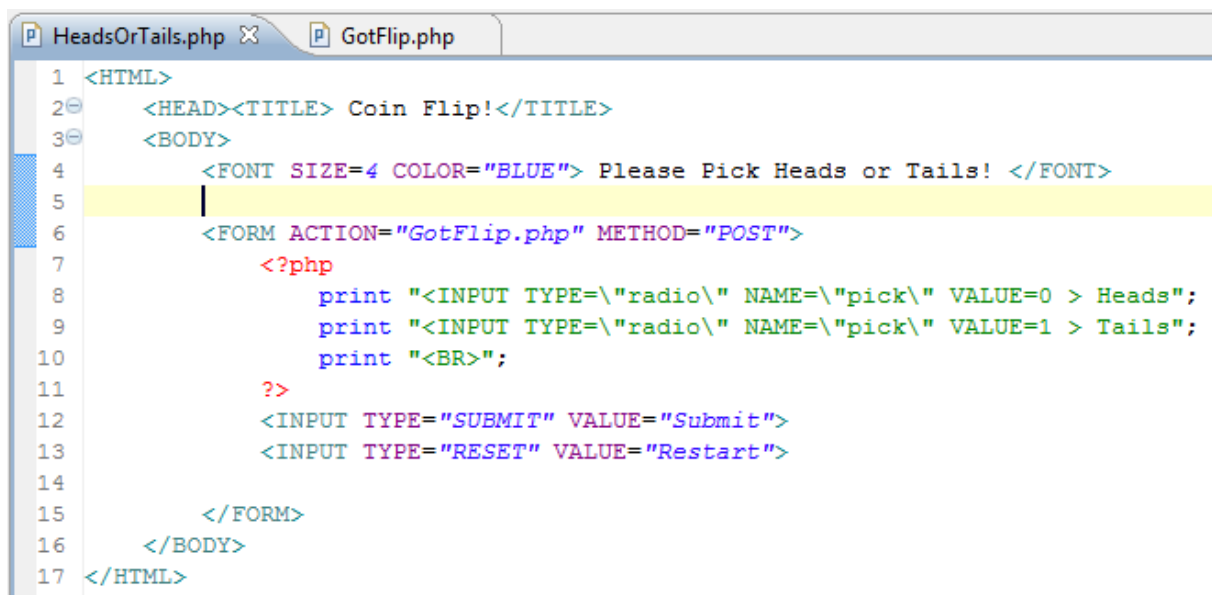


- There should be a project named Lab3 as the result of the previous lab.
- Close all the opening file in the **PHP Editor** view by right click to a file and choose **Close All**.



## 2.2. Guess Heads Or Tails

### Step 1. Create HeadsOrTails.php




## Step 2. Create GotFlip.php

```
HeadsOrTails.php  GotFlip.php X
1 <html>
2 <head><title> Coin Flip Results </title></head>
3 <body>
4     <?php
5         srand ((double) microtime() * 10000000);
6         $flip = rand( 0, 1 );
7         $pick = $_POST["pick"];
8
9         if ( $flip == 0 && $pick == 0 ) {
10             print "The flip=$flip, which is heads! <br> ";
11             print '<font color="blue"> You got it right!</font>';
12         } elseif ( $flip == 0 && $pick == 1 ) {
13             print "The flip=$flip, which is heads! <br> ";
14             print '<font color="red"> You got it wrong!</font>';
15         } elseif ( $flip == 1 && $pick == 1 ) {
16             print "The flip=$flip, which is tails! <br> ";
17             print '<font color="blue"> You got it right!</font>';
18         } elseif ( $flip == 1 && $pick == 0 ) {
19             print "The flip=$flip, which is tails! <br> ";
20             print '<font color="red"> You got it wrong!</font>';
21         } else {
22             print "<br>Illegal state error!";
23         }
24     ?>
25 </body></html>
```

## Step 3. Run the ConditionalTest.html

Please Pick Heads or Tails!

☒ Heads ☐ Tails



The flip=0, which is heads!  
You got it right!

## 2.3. Guess a number

Create a GuessANumber.php file to process a game which allows users to guess a number from 0 to 100.

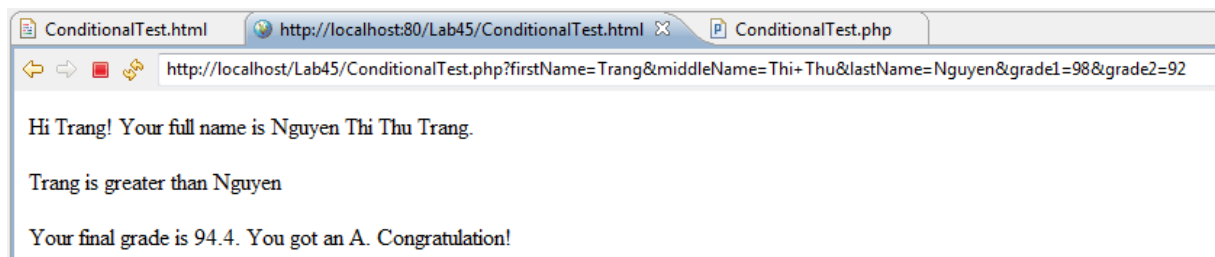
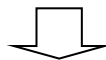
The system first get a random number from 0 to 100. Then the system ask the user to enter a number, if the number the user guesses is less than the random number, notify "Wrong. Please try a higher number. You have guessed 1 time!". Otherwise, notify "Wrong. Please try a lower number. You have guessed 1 time!". Then the user enter another number, so on...

Note to validate the number the user entered (text box). If it is not a number, please notify "You must enter a number!".

## 2.4. Using printf function

Change the following part to ConditionalTest.php in Lab4. Run and observe the result.

```
20 if ($final > 89) {
21     printf ("Your final grade is %.1f. You got an A. Congratulation!", $final);
22 } elseif ($final > 79) {
23     printf ("Your final grade is %.1f. You got an B.", $final);
24 } elseif ($final > 69) {
25     printf ("Your final grade is %.1f. You got an C.", $final);
26 } elseif ($final > 59) {
27     printf ("Your final grade is %.1f. You got an D", $final);
28 } elseif ($final >= 0) {
29     printf ("Your final grade is %.1f. You got an F.", $final);
30 } else {
31     printf ("Illegal grade less than 0. Final grade = %.1f", $final);
32 }
33 ?></body></html>
```



## 2.5. Sale

Create Sale.php to give date information for sale.

```
1 <html>
2   <head><title> Our Shop </title> </head>
3   <body>
4       <font size=4 color="blue">
5           <?php
6               $today = date( 'l, F d, Y' );
7               print "Welcome on $today to our huge blowout sale! </font>";
8               $month = date('m');
9               $year = date('Y');
10              $dayofyear = date('z');
11              if ( $month == 12 && $year == 2001 ) {
12                  $daysleft = ( 365 - $dayofyear + 10 );
13                  print "<br> There are $daysleft sales days left";
14              } elseif ( $month == 01 && $year == 2002 ) {
15                  if ( $dayofyear <= 10 ) {
16                      $daysleft = ( 10 - $dayofyear );
17                      print "<br> There are $daysleft sales days left";
18                  } else {
19                      print "<br>Sorry, our sale is over.";
20                  }
21              } else {
22                  print "<br>Sorry, our sale is over.";
23              }
24              print "<br>Our Sale Ends Janurary January 10, 2002";
25          ?>
26      </font>
27  </body>
28 </html>
```

## 2.6. CarpetEstimate

### Step 1. Create CarpetEstimate.html

```
1 <HTML>
2   <HEAD><TITLE> Carpet Estimate</TITLE></HEAD>
3   <BODY>
4     <FONT SIZE=5 COLOR="BLUE"> Carpet Cost Estimator! </FONT>
5     <FORM ACTION="CalculateCost.php" METHOD="POST">
6       <table>
7         <tr><td>Carpet grade:</td>
8           <td><INPUT TYPE="radio" NAME="grade" VALUE=1 > Best Quality</td>
9           <td><INPUT TYPE="radio" NAME="grade" VALUE=2 > Extra Value</td>
10        </tr>
11        <tr>
12          <td>Room width (in m2):</td>
13          <td colspan="2"><INPUT TYPE="text" NAME="width" SIZE=4 MAXLENGTH=4></td>
14        </tr>
15        <tr>
16          <td>Room length (in m2):</td>
17          <td colspan="2"><INPUT TYPE="text" NAME="length" SIZE=4 MAXLENGTH=4></td>
18        </tr>
19        <td align="right"> <INPUT TYPE="SUBMIT" VALUE="Submit"></td>
20        <td align="left"> <INPUT TYPE="RESET" VALUE="Reset"></td>
21      </tr>
22    </table>
23  </FORM>
24 </BODY>
25 </HTML>
```

### Step 2. Create CalculateCost.php

```
1 <?php
2   <head><title> Carpet Cost Quote </title> </head>
3   <body>
4     <font size=5 color="blue"> Your Estimated Carpet Costs </font>
5   <?php
6     function carpet_cost( $width, $length, $grade, $carpet_cost ) {
7       if ( $width > 0 && $length > 0 ) {
8         if ( $grade == 1 ) {
9           $carpet_cost = $width * $length * 4.99;
10          return 1;
11        } elseif ( $grade == 2 ) {
12          $carpet_cost = $width * $length * 3.99;
13          return 1;
14        } else {
15          print "Unknown carpet grade = $grade";
16          return 0;
17        }
18      } else { return 0; }
19    }
20    $width = $_POST["width"]; $length = $_POST["length"]; $grade=$_POST["grade"];
21    $carpet_cost = 0; $install_cost = 0;
22    $ret = carpet_cost( $width, $length, $grade, &$amp;carpet_cost );
23    if ( $ret ) {
24      $room_size = $width * $length;
25      $total_cost = $carpet_cost + ($carpet_cost *.5);
26      print "<br>Total square feet = $room_size";
27      print "<br>Carpet grade = $grade";
28      print "<br>Carpet cost = \$$carpet_cost";
29      print "<br>Total cost estimate (installed) = \$$total_cost";
30    } else { print "Illegal value received"; }
31  <?>
32 </body>
```

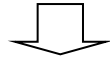
### Step 3. Run and observe the result

## Carpet Cost Estimator!

Carpet grade: ☐ Best Quality ☒ Extra Value

Room width (in m2):

Room length (in m2):



## Your Estimated Carpet Costs

Total square feet = 15

Carpet grade = 2

Carpet cost = \$59.85

Total cost estimate (installed) = \$89.775

### 2.7. Exercise

1. Write a function to convert radians to degrees and vice versa. Write .php file allowing users to enter 1 factor, and print the other factor.
2. Create a DateTimeFunction.php to do the following jobs:
  - Allows users enter two names and their birthdays in number (E.g. 12/12/2008)
  - Validate them if two birthdays
  - If OK, give the following information by write your own functions and call them
    - Display in two dates in letter (E.g. Friday, December 12, 2008) for each person
    - Calculate the difference in days between two dates.
    - Calculate how old are they, the difference years between two persons.