

# Lab 4. Working with Arrays

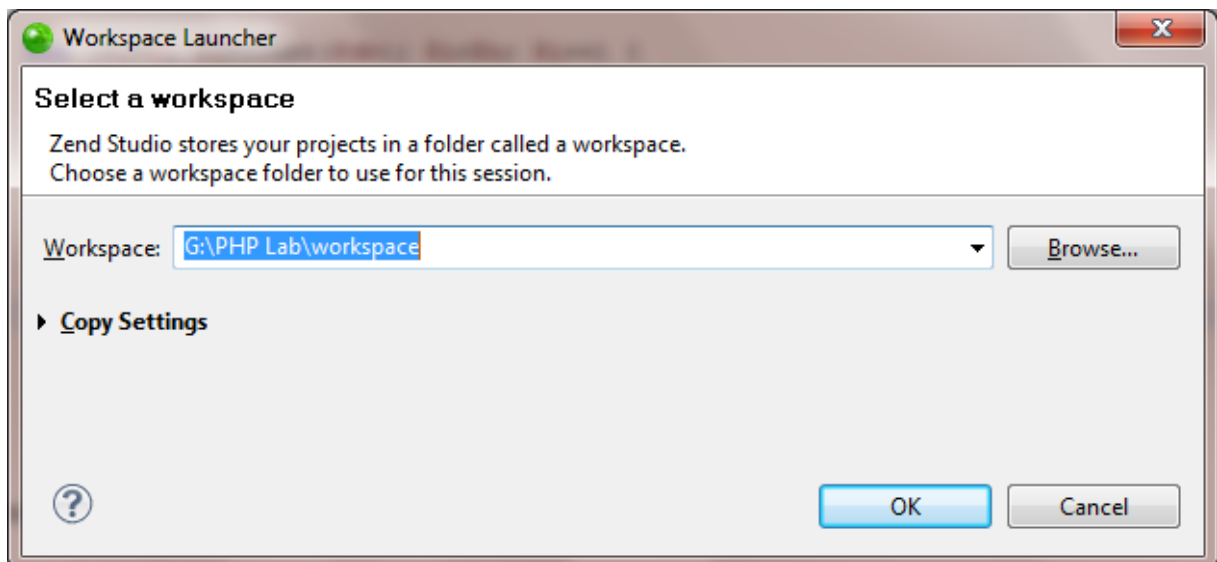
Prepared: TrangNTT

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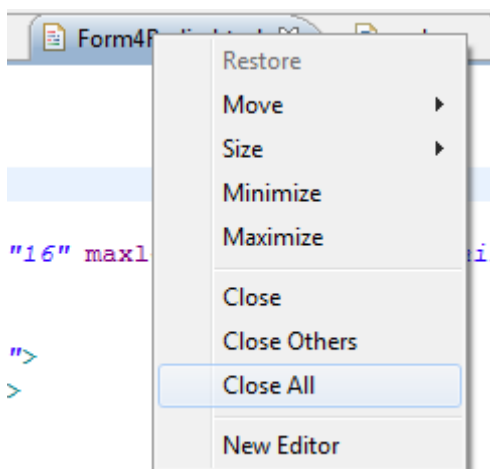
## 4.1. Open workspace and Create Folder

### 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.



- Close all the opening file in the **PHP Editor** view by right click to a file and choose **Close All**.



### Step 2. Right click on LabProject, choose New Folder. Enter Lab4 as folder name.

From now, put all files in this lab to Lab4 folder.

## 4.2. Tuna Café

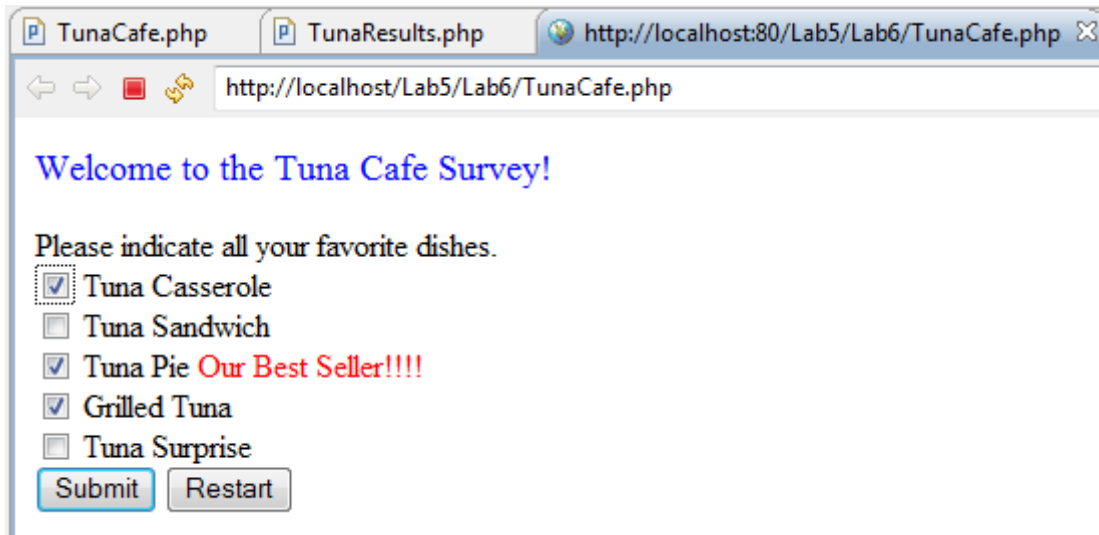
### Step 1. TunaCafe.php

```
TunaCafe.php TunaResults.php http://localhost:80/Lab5/Lab6/TunaCafe.php
1 <html>
2 <head><title> Tuna Cafe </title></head>
3 <body><font size=4 color="blue">
4 Welcome to the Tuna Cafe Survey! </font>
5 <form action="TunaResults.php" method="GET">
6 <?php
7     $menu = array('Tuna Casserole', 'Tuna Sandwich',
8                   'Tuna Pie', 'Grilled Tuna', 'Tuna Surprise');
9     $bestseller = 2;
10    print 'Please indicate all your favorite dishes.<br>';
11    for ($i=0; $i < count($menu); $i++) {
12        print "<input type=\"checkbox\" name=\"prefer[]\" value=\"$i\" $menu[$i]";
13        if ($i == $bestseller) {
14            print '<font color=red> Our Best Seller!!!! </font>';
15        }
16        print '<br>';
17    }
18    ?>
19    <input type="submit" value="Submit">
20    <input type="reset" value="Restart">
21 </form>
22 </body>
23 </html>
```

### Step 2. TunaResults.php

```
TunaCafe.php TunaResults.php http://localhost:80/Lab5/Lab6/TunaCafe.php
1 <html>
2 <head><title> Tuna Cafe </title></head>
3 <body>
4 <font size=4 color="blue"> Tuna Cafe Results Received </font>
5 <?php
6     $menu = array('Tuna Casserole', 'Tuna Sandwich', 'Tuna Pie', 'Grilled Tuna', 'Tuna Surprise');
7
8     $prefer = $_GET[prefer];
9     if (count($prefer) == 0 ) {
10        print 'Oh no! Please pick something as your favorite! ';
11    } else {
12        print '<br>Your selections were <ul>';
13        foreach ($prefer as $item) {
14            print "<li>$menu[$item]</li>";
15        }
16        print '</ul>';
17    }
18    ?>
19 </body>
20 </html>
```

### Step 3. Run



A screenshot of a web browser window with two tabs: 'TunaCafe.php' and 'TunaResults.php'. The address bar shows 'http://localhost:80/Lab5/Lab6/TunaCafe.php'. The page content includes a blue heading 'Welcome to the Tuna Cafe Survey!', a prompt 'Please indicate all your favorite dishes.', and a list of five items with checkboxes: 'Tuna Casserole' (checked), 'Tuna Sandwich' (unchecked), 'Tuna Pie' (checked), 'Grilled Tuna' (checked), and 'Tuna Surprise' (unchecked). The text 'Our Best Seller!!!!' is written in red next to 'Tuna Pie'. At the bottom are 'Submit' and 'Restart' buttons.

http://localhost:80/Lab5/Lab6/TunaCafe.php

Welcome to the Tuna Cafe Survey!

Please indicate all your favorite dishes.

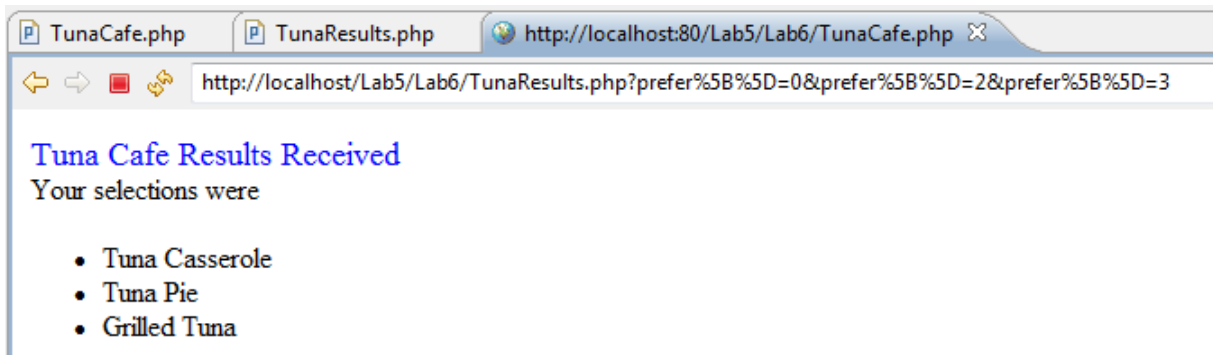
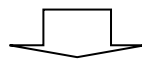
☒ Tuna Casserole

☐ Tuna Sandwich

☒ Tuna Pie **Our Best Seller!!!!**

☒ Grilled Tuna

☐ Tuna Surprise



A screenshot of a web browser window with the same two tabs. The address bar shows 'http://localhost:80/Lab5/Lab6/TunaResults.php?prefer%5B%5D=0&prefer%5B%5D=2&prefer%5B%5D=3'. The page content includes a blue heading 'Tuna Cafe Results Received', the text 'Your selections were', and a bulleted list of the selected items: 'Tuna Casserole', 'Tuna Pie', and 'Grilled Tuna'.

http://localhost:80/Lab5/Lab6/TunaResults.php?prefer%5B%5D=0&prefer%5B%5D=2&prefer%5B%5D=3

Tuna Cafe Results Received

Your selections were

- Tuna Casserole
- Tuna Pie
- Grilled Tuna

### 4.3. Drive Distance

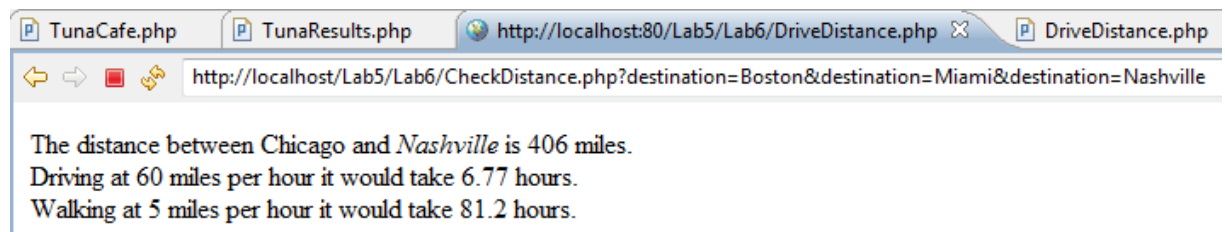
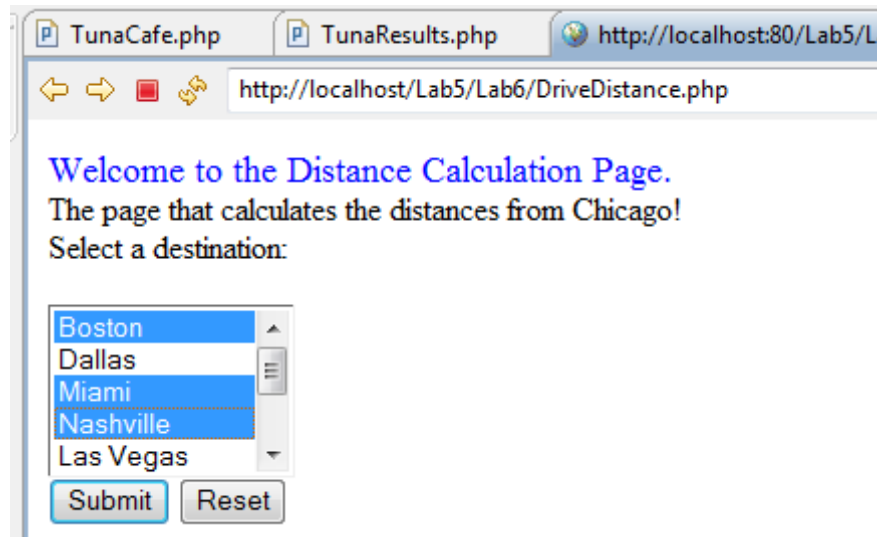
#### Step 1. DriveDistance.php

```
TunaCafe.php TunaResults.php http://localhost:80/Lab5/Lab6/
1 <HTML>
2 <HEAD><TITLE> Distance from Chicago!</TITLE></HEAD>
3 <BODY>
4 <FONT SIZE=4 COLOR=BLUE> Welcome to the Distance Calculator
5 <br>The page that calculates the distances from Chicago
6 <BR>Select a destination:
7 <FORM ACTION="CheckDistance.php" METHOD="GET">
8   <SELECT NAME="destination" SIZE=5 MULTIPLE>
9     <OPTION> Boston </OPTION>
10    <OPTION> Dallas </OPTION>
11    <OPTION> Miami </OPTION>
12    <OPTION> Nashville </OPTION>
13    <OPTION> Las Vegas </OPTION>
14    <OPTION> Pittsburgh </OPTION>
15    <OPTION> San Francisco </OPTION>
16    <OPTION> Toronto </OPTION>
17    <OPTION> Washington, DC </OPTION>
18  </SELECT>
19  <BR>
20  <INPUT TYPE="SUBMIT" VALUE="Submit">
21  <INPUT TYPE="RESET" VALUE="Reset" >
22 </FORM></BODY></HTML>
```

#### Step 2. CheckDistance.php

```
TunaCafe.php TunaResults.php http://localhost:80/Lab5/Lab6/DriveDistance.php DriveDistance.php CheckDistance.php
1 <html>
2   <head><title> Distance and Time Calculations </title></head>
3   <body>
4     <?php
5       $cities = array ('Dallas' => 803, 'Toronto' => 435, 'Boston' => 848,
6                       'Nashville' => 406, 'Las Vegas' => 1526,
7                       'San Francisco' => 1835, 'Washington, DC' => 595,
8                       'Miami' => 1189, 'Pittsburgh' => 409);
9       $destination = $_GET[destination];
10      if (isset($cities[$destination])) {
11        $distance = $cities[$destination];
12        $time = round( ($distance / 60), 2);
13        $walktime = round( ($distance / 5), 2);
14        print "The distance between Chicago and <I>$destination</I> is $distance miles.";
15        print "<br>Driving at 60 miles per hour it would take $time hours.";
16        print "<br>Walking at 5 miles per hour it would take $walktime hours.";
17      } else {
18        print "Sorry, do not have destination information for $destination.";
19      }
20    <?>
21  </body>
22 </html>
```

### Step 3. Run



**Step 4.** Note that although the user selects 3 destination, the result only calculate for the last destination. Modify `CheckDistance.php` to calculate and display information for all destinations, each destination is located in a row of a table (the table has 5 columns: No., Destination, Distance, Driving time (60 mph), Walking time (5 mph)).

From Chicago to:

No.	Destination	Distance	Driving time	Walking time
1	Boston	848	14.13	169.6
2	Dallas	803	13.38	160.6
3	Las Vegas	1526	25.43	305.2

### 4.4. Exercise - User Sorting

Given following suggestion code.

```
<?php

function user_sort($a, $b) {
    // smarts is all-important, so sort it first
    if($b == 'smarts') {
        return 1;
    }
    else if($a == 'smarts') {
        return -1;
    }
    return ($a == $b) ? 0 : (($a < $b) ? -1 : 1);
}
```

```

$values = array('name' => 'Buzz Lightyear',
                'email_address' => 'buzz@starcommand.gal',
                'age' => 32,
                'smarts' => 'some');

if($submitted) {
    if($sort_type == 'usort' || $sort_type == 'uksort' || $sort_type == 'uasort') {
        $sort_type($values, 'user_sort');
    }
    else {
        $sort_type($values);
    }
}
?>

<form action="UserSorting.php" method="post">
<p>
    <input type="radio" name="sort_type" value="sort" checked="checked" />
    Standard sort<br />
    <input type="radio" name="sort_type" value="rsort" /> Reverse sort<br />
    <input type="radio" name="sort_type" value="usort" /> User-defined sort<br />
    <input type="radio" name="sort_type" value="ksort" /> Key sort<br />
    <input type="radio" name="sort_type" value="krsort" /> Reverse key sort<br />
    <input type="radio" name="sort_type" value="uksort" /> User-defined key sort<br />
/>
    <input type="radio" name="sort_type" value="asort" /> Value sort<br />
    <input type="radio" name="sort_type" value="arsort" /> Reverse value sort<br />
    <input type="radio" name="sort_type" value="uasort" /> User-defined value
sort<br />
</p>

<p align="center">
    <input type="submit" value="Sort" name="submitted" />
</p>

<p>
    Values <?= $submitted ? "sorted by $sort_type" : "unsorted"; ?>:
</p>

<ul>
    <?php
        foreach($values as $key=>$value) {
            echo "<li><b>$key</b>: $value</li>";
        }
    ?>
</ul>
</form>

```

Modify to run it in one PHP file allowing users to sort the data as they choose in the radio button.

The following result is the example:

Standard sort  
Reverse sort  
User-defined sort  
Key sort  
Reverse key sort  
User-defined key sort  
Value sort  
Reverse value sort  
User-defined value sort

Sort

Values unsorted (before sort):

- name: Buzz Lightyear
- email\_address: buzz@starcommand.gal
- age: 32
- smarts: some

http://localhost/Lab5/Lab6/UserSorting.php?sort\_type=usort&submitted=Sort

☐ Standard sort

☐ Reverse sort

☒ User-defined sort

☐ Key sort

☐ Reverse key sort

☐ User-defined key sort

☐ Value sort

☐ Reverse value sort

☐ User-defined value sort

Sort

Values unsorted (before sort):

- **name:** Buzz Lightyear
- **email\_address:** buzz@starcommand.gal
- **age:** 32
- **smarts:** some

Values sorted by usort:

- 0: Buzz Lightyear
- 1: buzz@starcommand.gal
- 2: some
- 3: 32

http://localhost/Lab5/Lab6/UserSorting.php?sort\_type=asort&submitted=Sort

☐ Standard sort

☐ Reverse sort

☐ User-defined sort

☐ Key sort

☐ Reverse key sort

☐ User-defined key sort

☒ Value sort

☐ Reverse value sort

☐ User-defined value sort

Sort

Values unsorted (before sort):

- **name:** Buzz Lightyear
- **email\_address:** buzz@starcommand.gal
- **age:** 32
- **smarts:** some

Values sorted by asort:

- **name:** Buzz Lightyear
- **email\_address:** buzz@starcommand.gal
- **smarts:** some
- **age:** 32