Practical: 3

Aim: Perform following programs of PHP Array & it's inbuilt function.

Q.1 Write a PHP program to find out maximum and minimum number from an array.
Program:
```php
<?php
function findMax($arr)
{
   return max($arr);
}
function findMin($arr)
{
   return min($arr);
}
?>
```

Q.2 Write a PHP program to reverse an array.
Program:
```php
<?php
function reverseArray($arr)
{
   return array_reverse($arr);
}
?>
```

Q.3 Write a PHP program to merge two arrays.
Program:
```php
<?php
function mergeArray(...$array){
   $tempArray = array();
   foreach($array as $it)
   {
     $tempArray=array_merge($tempArray,$it);
   }
   return $tempArray;
}
?>
```

Q.4 Write a PHP program to sort an array.
Program:
```php
<?php
function sortArray($array)
{
    sort($array);
    return $array;
}
?>
```

Q.5 Write a PHP program to search element from an array.
Program:
```php
<?php
function searchArray($searchString,$array)
{
    return array_search($searchString, $array);
}
?>
```

Q.6 Write a PHP program to remove duplicate values from an array.
Program:
```php
<?php
function removeDuplicateArray($array,$flag=null)
{
    if($flag!=null)
    {
        return array_unique($array,$flag);
    }
    else{
        return array_unique($array);
    }
}
?>
```

PHP Application of about questions.
Program:

```php
<?php
include('./q1.php');
include('./q2.php');
include('./q3.php');
include('./q4.php');
include('./q5.php');
include('./q6.php');
?>
<html>
   <body>
      <form method="post" action="">
         <table>
            <tr>
               <td>No of element: </td>
               <td><input type="text" name="arrayLen"/>
            </tr>
            <tr>
               <td></td>
               <td><input type="submit" name="getArraySize"/>
            </td>
         </table>
      <form method="post" action="">
         <table>
            <tr>
                    <?php
                    if(isset($_POST['getArraySize']))
                    {
                       echo "<td>";
                       echo "<table>";
                       echo "<tr><th colspan='2'>Array 1</th></tr>";
                       $arraySize=$_POST['arrayLen'];
                       for($i=1;$i<=$arraySize;$i++)
                       {
                          echo "<tr>";
                          echo "<td>Element $i: </td>";
                          echo "<td><input type='text' name='e".$i."'/></td>";
                          echo "</tr>";
                       }
```
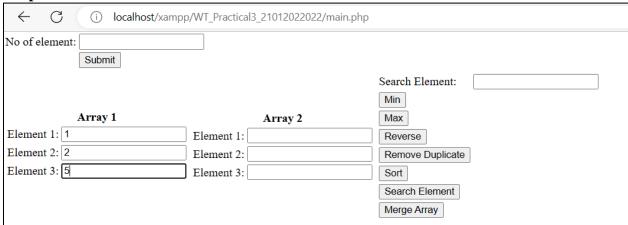
```php
        echo "<tr><td><input type='hidden' name='arrLen'
        value='"'.$arraySize."'/></td></tr>";
        echo "</table>";
        echo "</td><td>";
        echo "<table>";
        echo "<tr><th colspan='2'>Array 2</th></tr>";

        for($i=1;$i<=$arraySize;$i++)
        {
           echo "<tr>";
           echo "<td>Element $i: </td>";
           echo "<td><input type='text' name='ae'.$i.'/></td>";
           echo "</tr>";
        }
        echo "</table></td><td style='text-align:top;'>";
        echo "<table><tr><td>Search Element: </td><td><input
        type='text' name='arraySearchElement'/></td></tr>";
        echo "<tr><td><input type='submit' name='arrayMin'
        value='Min'/></td></tr>";
        echo "<tr><td><input type='submit' name='arrayMax'
        value='Max'/></td></tr>";
        echo "<tr><td><input type='submit' name='arrayReverse'
        value='Reverse'/></td></tr>";
        echo "<tr><td><input type='submit'
        name='arrayFilterDuplicate'
        value='Remove Duplicate'/></td></tr>";
        echo "<tr><td><input type='submit' name='arraySort'
        value='Sort'/></td></tr>";
        echo "<tr><td><input type='submit' name='arraySearch'
        value='Search Element'/></td></tr>";
        echo "<tr><td><input type='submit' name='arrayCombine'
        value='Merge Array'/></td></tr>";
        echo "</table></td>";
    }
    if(isset($_POST['arrayMin']))
    {
        $arr = array();
        for ($i = 1; $i <= $_POST['arrLen'];$i++)
        {
```

```php
        array_push($arr,$_POST['e'.$i]);
      }
    echo "Min element of array is: ",findMin($arr);
  }
if(isset($_POST['arrayMax']))
{
  $arr = array();
  for ($i = 1; $i <= $_POST['arrLen'];$i++)
  {

      array_push($arr,$_POST['e'.$i]);
    }
  echo "Max element of array is: ",findMax($arr);
}
if(isset($_POST['arrayReverse']))
{
  $arr = array();
  for ($i = 1; $i <= $_POST['arrLen'];$i++)
  {

      array_push($arr,$_POST['e'.$i]);
    }
  echo "Original Array is: ";
  print_r($arr);
  echo "<br>Reverse array is: ";
  print_r(reverseArray($arr));
}
if(isset($_POST['arrayFilterDuplicate']))
{
  $arr = array();
  for ($i = 1; $i <= $_POST['arrLen'];$i++)
  {

      array_push($arr,$_POST['e'.$i]);
    }
  echo "Original Array is: ";
  print_r($arr);
  echo "<br>Filter array is: ";
  print_r(removeDuplicateArray($arr));
}
```

```php
if(isset($_POST['arraySort']))
{
  $arr = array();
  for ($i = 1; $i <= $_POST['arrLen'];$i++)
  {

      array_push($arr,$_POST['e'.$i]);
  }
  echo "Original Array is: ";
  print_r($arr);
  echo "<br>Sorted Array is: ";
  print_r(sortArray($arr));
}
if(isset($_POST['arraySearch']))
{
  $arr = array();
  for ($i = 1; $i <= $_POST['arrLen'];$i++)
  {

      array_push($arr,$_POST['e'.$i]);
  }
  $searchElement = $_POST['arraySearchElement'];
  $ind = searchArray($searchElement, $arr);
  if($ind!=-1)
  {
    echo "$searchElement found at : $ind";
  }
  else{
    echo "Element Not Found";
  }
}
if(isset($_POST['arrayCombine']))
{
  $arr1 = array();
  $arr2 = array();
  for ($i = 1; $i <= $_POST['arrLen'];$i++)
  {
    array_push($arr1,$_POST['e'.$i]);
    array_push($arr2,$_POST['ae'.$i]);
  }
```

```
                    echo "Array 1 is: ";
                    print_r($arr1);
                    echo "<br> Array 2 is: ";
                    print_r($arr2);
                    echo "<br> Final Array is: ";
                    print_r(mergeArray($arr1, $arr2));
                }

            ?>
          </td>
        </tr>
      </form>
    </body>
</html>
```

Output: MIN

No of element: [   ]
    [Submit]

                                      Search Element: [   ]
                                      [Min]

Array 1	**Array 2**	
Element 1: 1	Element 1:	[Max]
Element 2: 2	Element 2:	[Reverse]
Element 3: 5	Element 3:	[Remove Duplicate]
		[Sort]
		[Search Element]
		[Merge Array]

localhost/xampp/WT_Practical3_21012022022/main.php

No of element: [   ]
    [Submit]
Min element of array is: 1

Output: MAX

No of element: [_____]
    [Submit]

                                                          Search Element: [_____]
                                                          [Min]

Array 1	**Array 2**	[Max]
Element 1: [1]	Element 1: [____]	[Reverse]
Element 2: [2]	Element 2: [____]	[Remove Duplicate]
Element 3: [5]	Element 3: [____]	[Sort]
		[Search Element]
		[Merge Array]

---

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No of element: [_____]
    [Submit]
Max element of array is: 5

Output: Reverse

No of element: [_____]
    [Submit]

                                                          Search Element: [_____]
                                                          [Min]

Array 1	**Array 2**	[Max]
Element 1: [1]	Element 1: [____]	[Reverse]
Element 2: [2]	Element 2: [____]	[Remove Duplicate]
Element 3: [5]	Element 3: [____]	[Sort]
		[Search Element]
		[Merge Array]

---

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No of element: [_____]
    [Submit]
Original Array is: Array ([0] => 1 [1] => 2 [2] => 5)
Reverse array is: Array ([0] => 5 [1] => 2 [2] => 1)

Output: Sort

No of element: [   ]
   [Submit]

                                                    Search Element: [   ]
         Array 1   **Array 2**   [Min]
Element 1: [114]   Element 1: [   ]   [Max]
Element 2: [9]   Element 2: [   ]   [Reverse]
Element 3: [68]   Element 3: [   ]   [Remove Duplicate]
Element 4: [234]   Element 4: [   ]   [Sort]
Element 5: [12]   Element 5: [   ]   [Search Element]
                                                     [Merge Array]

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No of element: [   ]
   [Submit]

Original Array is: Array ([0] => 114 [1] => 9 [2] => 68 [3] => 234 [4] => 12)
Sorted Array is: Array ([0] => 9 [1] => 12 [2] => 68 [3] => 114 [4] => 234)

Output: Remove Duplicate

No of element: [   ]
   [Submit]

                                                    Search Element: [   ]
         Array 1   **Array 2**   [Min]
Element 1: [114]   Element 1: [   ]   [Max]
Element 2: [12]   Element 2: [   ]   [Reverse]
Element 3: [68]   Element 3: [   ]   [Remove Duplicate]
Element 4: [1]   Element 4: [   ]   [Sort]
Element 5: [12]   Element 5: [   ]   [Search Element]
                                                     [Merge Array]

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No of element: [   ]
   [Submit]

Original Array is: Array ([0] => 114 [1] => 12 [2] => 68 [3] => 1 [4] => 12)
Filter array is: Array ([0] => 114 [1] => 12 [2] => 68 [3] => 1)

Output: Search Element

No of element: [   ]
    [Submit]

                                                      Search Element: [68   ]

	Array 1		**Array 2**		
Element 1:	114	Element 1:		[Min]	
Element 2:	12	Element 2:		[Max]	
Element 3:	68	Element 3:		[Reverse]	
Element 4:	1	Element 4:		[Remove Duplicate]	
Element 5:	12	Element 5:		[Sort]	
				[Search Element]	
				[Merge Array]	

No of element: [   ]
    [Submit]

68 found at : 2

Output: Merge Array

No of element: [   ]
    [Submit]

                                                      Search Element: [   ]

	Array 1		**Array 2**		
Element 1:	114	Element 1:	12	[Min]	
Element 2:	12	Element 2:	78	[Max]	
Element 3:	68	Element 3:	656	[Reverse]	
Element 4:	1	Element 4:	3294	[Remove Duplicate]	
Element 5:	12	Element 5:	78745	[Sort]	
				[Search Element]	
				[Merge Array]	

No of element: [   ]
    [Submit]

Array 1 is: Array ([0] => 114 [1] => 12 [2] => 68 [3] => 1 [4] => 12)
Array 2 is: Array ([0] => 12 [1] => 78 [2] => 656 [3] => 3294 [4] => 78745)
Final Array is: Array ([0] => 114 [1] => 12 [2] => 68 [3] => 1 [4] => 12 [5] => 12 [6] => 78 [7] => 656 [8] => 3294 [9] => 78745)