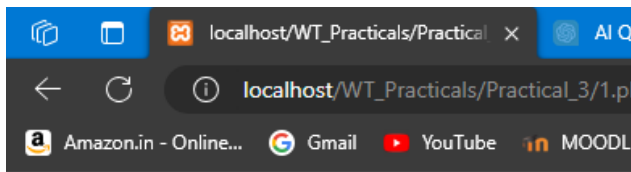# Practical - 3

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

1. **Write a PHP program to find out maximum and minimum number from an array.**

```php
<?php
echo "Adeshara Brijesh_21012021001 <br>";
$array=[];
$n=10;
echo "Array is: ";
for($i=0;$i<$n;$i++){
    if($i%10==0) echo "<br>";
    $array[$i]=rand(-100,100);
    echo $array[$i].",";
}
echo "<br><br>";
$max = max($array);
$min = min($array);

echo "Maximum number: $max<br>";
echo "Minimum number: $min<br>";
$max = $array[0];
$min = $array[0];

foreach ($array as $value) {
    if ($value > $max) {
        $max = $value;
    }
    if ($value < $min) {
        $min = $value;
    }
}
echo "Maximum number without in-built function: $max<br>";
echo "Minimum number without in-built function: $min";
?>
```

Adeshara Brijesh_21012021001
Array is:
40,-62,12,0,-49,-81,82,4,-56,-43,

Maximum number: 82
Minimum number: -81
Maximum number without in-built function: 82
Minimum number without in-built function: -81

2. **Write a PHP program to reverse an array.**

```php
<?php
echo "Adeshara Brijesh_21012021001 <br>";
$array=[];
$n=10;
echo "Array is: ";
for($i=0;$i<$n;$i++){
    if($i%10==0) echo "<br>";
    $array[$i]=rand(-100,100);
    echo $array[$i].",";
}
echo "<br><br>";
$reversedArray = array_reverse($array);
echo "Original array: " . implode(", ", $array) . "<br>";
echo "Reversed array: " . implode(", ", $reversedArray) . "<br>";
$reversedArray = array();
$length = count($array);
for ($i = $length - 1; $i >= 0; $i--) {
    $reversedArray[] = $array[$i];
}
echo "Original array without in-built function: " . implode(", ", $array) . "<br>";
echo "Reversed array without in-built function: " . implode(", ", $reversedArray);
?>
```

```
Adeshara Brijesh_21012021001
Array is:
-94,43,71,9,56,-67,30,83,54,19,

Original array: -94, 43, 71, 9, 56, -67, 30, 83, 54, 19
Reversed array: 19, 54, 83, 30, -67, 56, 9, 71, 43, -94
Original array without in-built function: -94, 43, 71, 9, 56, -67, 30, 83, 54, 19
Reversed array without in-built function: 19, 54, 83, 30, -67, 56, 9, 71, 43, -94
```

3. **Write a PHP program to merge two arrays.**

```php
<?php
$array1=[];
$n=10;
echo "Array1 is: ";
for($i=0;$i<$n;$i++){
    if($i%10==0) echo "<br>";
    $array1[$i]=rand(-100,100);
    echo $array1[$i].",";
}
$array2=[];
$n=10;
echo "<br>Array2 is: ";
for($i=0;$i<$n;$i++){
    if($i%10==0) echo "<br>";
    $array2[$i]=rand(-100,100);
    echo $array2[$i].",";
}

echo "<br><br>";
$mergedArray = array_merge($array1, $array2);
echo "Merged array: " . implode(", ", $mergedArray) . "<br>";
$mergedArray = array();
foreach ($array1 as $value) {
    $mergedArray[] = $value;
}
foreach ($array2 as $value) {
    $mergedArray[] = $value;
}
echo "Merged array without using in-built function: " . implode(", ", $mergedArray);
?>
```

```
Array1 is:
-50,-14,81,52,-61,71,-23,-28,53,-62,
Array2 is:
-2,-74,-75,42,-85,43,77,43,-89,11,

Merged array: -50, -14, 81, 52, -61, 71, -23, -28, 53, -62, -2, -74, -75, 42, -85, 43, 77, 43, -89, 11
Merged array without using in-built function: -50, -14, 81, 52, -61, 71, -23, -28, 53, -62, -2, -74, -75, 42, -85, 43, 77, 43, -89, 11
```
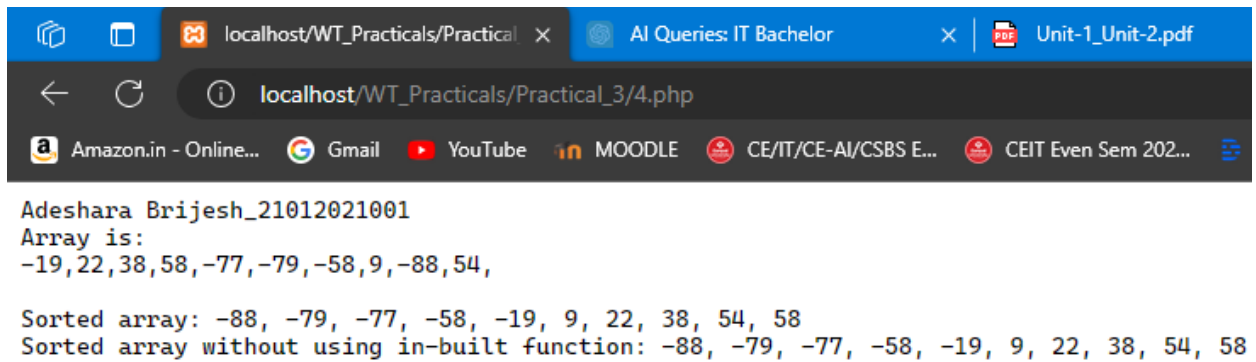
4. Write a PHP program to sort an array.

```php
<?php
echo "Adeshara Brijesh_21012021001 <br>";
$array=[];
$n=10;
echo "Array is: ";
for($i=0;$i<$n;$i++){
    if($i%10==0) echo "<br>";
    $array[$i]=rand(-100,100);
    echo $array[$i].",";
}
echo "<br><br>";
sort($array);
echo "Sorted array: " . implode(", ", $array) . "<br>";
$length = count($array);
for ($i = 0; $i < $length - 1; $i++) {
    for ($j = 0; $j < $length - $i - 1; $j++) {
        if ($array[$j] > $array[$j + 1]) {
            $temp = $array[$j];
            $array[$j] = $array[$j + 1];
            $array[$j + 1] = $temp;
        }
    }
}
echo "Sorted array without using in-built function: " . implode(", ", $array);
?>
```
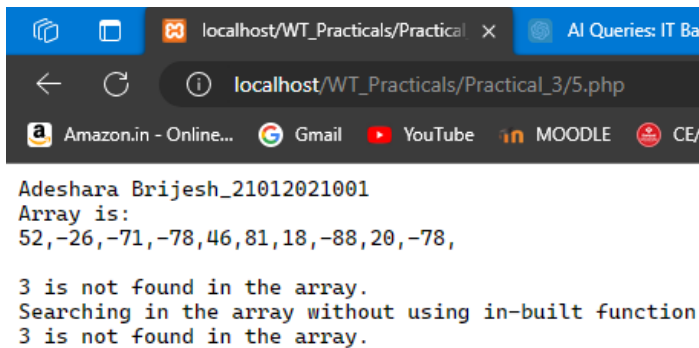
Adeshara Brijesh_21012021001
Array is:
-19,22,38,58,-77,-79,-58,9,-88,54,

Sorted array: -88, -79, -77, -58, -19, 9, 22, 38, 54, 58
Sorted array without using in-built function: -88, -79, -77, -58, -19, 9, 22, 38, 54, 58

5. **Write a PHP program to search element from an array.**

```php
<?php
echo "Adeshara Brijesh_21012021001 <br>";
$array=[];
$n=10;
echo "Array is: ";
for($i=0;$i<$n;$i++){
   if($i%10==0) echo "<br>";
   $array[$i]=rand(-100,100);
   echo $array[$i].",";
}
echo "<br><br>";
$searchValue = 3;
if (in_array($searchValue, $array)) {
   echo "$searchValue is found in the array. <br>";
} else {
   echo "$searchValue is not found in the array. <br>";
}
$searchValue = 3;
$found = false;
foreach ($array as $value) {
   if ($value === $searchValue) {
      $found = true;
      break;
   }}
echo "Searching in the array without using in-built function. <br>";
if ($found) {
   echo "$searchValue is found in the array.";
} else {
   echo "$searchValue is not found in the array.";
}
?>
```

Adeshara Brijesh_21012021001
Array is:
52,-26,-71,-78,46,81,18,-88,20,-78,

3 is not found in the array.
Searching in the array without using in-built function.
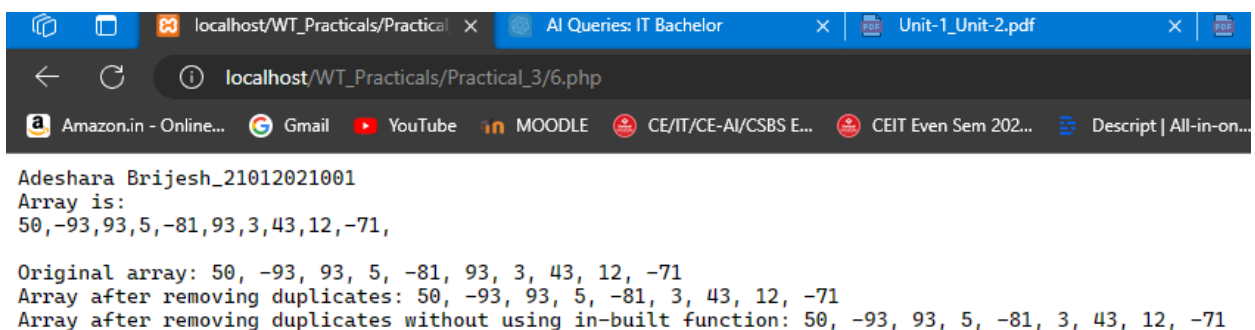3 is not found in the array.

6. Write a PHP program to remove duplicate values from an array.

```php
<?php
echo "Adeshara Brijesh_21012021001 <br>";
$array=[];
$n=10;
echo "Array is: ";
for($i=0;$i<$n;$i++){
    if($i%10==0) echo "<br>";
    $array[$i]=rand(-100,100);
    echo $array[$i].","; }
echo "<br><br>";
$uniqueArray = array_unique($array);
echo "Original array: " . implode(", ", $array) . "<br>";
echo "Array after removing duplicates: " . implode(", ", $uniqueArray) . "<br>";
$uniqueArray = array();
foreach ($array as $value) {
    if (!in_array($value, $uniqueArray)) {
        $uniqueArray[] = $value;
    }}
echo "Array after removing duplicates without using in-built function: " . implode(", ",
$uniqueArray);
?>
```

Adeshara Brijesh_21012021001
Array is:
50,-93,93,5,-81,93,3,43,12,-71,

Original array: 50, -93, 93, 5, -81, 93, 3, 43, 12, -71
Array after removing duplicates: 50, -93, 93, 5, -81, 3, 43, 12, -71
Array after removing duplicates without using in-built function: 50, -93, 93, 5, -81, 3, 43, 12, -71