Arrays

Array

- An array is a group of same data type which is used to store multiple values in a single variable.
- In an array each data item is referenced by its name and a number that is called a subscript.
- The elements of an array are accessed by specifying a subscript after the variable name.
- The first element of an array has a subscript of 0, the next is 1 and so on. The last element has a subscript of n-1, where n is the number of elements.

Types of Array

- There are three types of arrays in PHP, which are as follows:
  1. Numeric Index Array
  2. Associative Array
  3. Multidimensional Array

Numeric Index Array

- It stores each array element with a numeric index i.e. subscript.

- In a numeric indexed array, the keys are numeric and starts with a subscript of 0, the next is 1, and so on.

- It uses integer/ numbers as their index number to identify each item of the array

- There are two ways to define the numeric index array in PHP. Which are as follows:

```
$arrayname
  =array("value1","value2","value3");
  OR
$arrayname[0]="value1";
$arrayname[1]="value2";
$arrayname[2]="value3";
```

Associative Array

- It is a type of array by which you can assign an arbitrary key to every value.

- In an associative array, each key is associated with a value. We can use the values as keys and assign values to them.

- In an associative array, the keys are not necessarily numeric, and even when they are numeric, not necessarily in any order.

- There are two ways for defining the associative array in PHP. Which are as follows:

$arrayname = array("value1"=>20, "value2"=>30, "value3"=>40);
  OR
$arrayname['value1'] = "20";
$arrayname['value2'] = "30";
$arrayname['value3'] = "40";

Multidimensional Array

- A Multidimensional array is also known as a two-dimensional array.
- A Multidimensional array is an array of arrays i.e. each element in the main array can also be an array. And each element in the sub-array can be an array, and so on.
- A multidimensional array is an array of arrays, which means that the array can contain arrays within itself.
- If an array element value is another array then this is a multidimensional array.

```
$arrayname = array ($array1, $array2,
    $array3) ;
```