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Subject : WBP   **Subject code :** 22619

Write a PHP program for creating and manipulating

a) **Indexed array**
b) **Associated array**
c) **Multidimensional array**

➢ What is Array ?

An array is a special variable, which can hold more than one value at a time. If you have a list of items (a list of car names, for example), storing the cars in single variable could look like this:

$car1 = "Volvo";
$car2 = "BMW";
$car3 = "Toyota";

However, What if you want to loop through the cars and find a specific one? And what if you had not 3 cars, but 300?

The solution is to create array!

An Array can hold many values under a single name, and you can access the values by referring to an index number.

➢ **Create an array in PHP**

In PHP, the array() function is used to create an array :

array();

In PHP, there are three types of arrays:

- **Indexed Arrays** – Arrays with a numeric index.
- **Associated arrays –** Arrays with name keys.
- **Multidimensional Arrays –** Arrays containing one or more arrays.

A. Indexed Array

There are two ways to create indexed arrays:

The index can be assigned automatically (index always starts at 0), like this:

$cars = array("Volvo", "BMW", "Toyota");
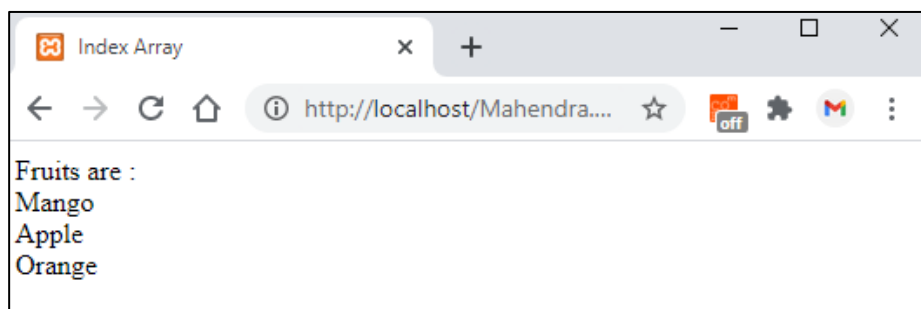
Or the index can be assigned automatically:

$cars[0] = "Volvo";
$cars[1] = "BMW"l
$cars[2] = "Toyota";

The following example creates an indexed array named $fruits, assigns four elements to it, and then prints a text contains the array values:

Program Code :

```
<html>
      <head>
            <title>Index Array</title>
      </head>
      <body>
            <?php
                  $fruits[0]="Mango";
                  $fruits[1]="Apple";
                  $fruits[2]="Orange";
                  $fruits[3]="Cherry";
                  $fruits[4]="Banana";
                  echo "Fruits are :"."<br>";
                  print_r($fruits[0]."<br>".$fruits[1]."<br>".$fruits[2]);
            ?>
      </body>
</html>
```

Output:-

B. Associative array :

Associative array are arrays that use named keys that you assign to them.

There are two ways to create an associative arrays:

$age = arrays ("peter"=> "35", "Ben" => "37", "Joe" => "43"); or

$age ['peter']= "35";

$age ['Ben']= "37";

$age ['Joe']= "43";

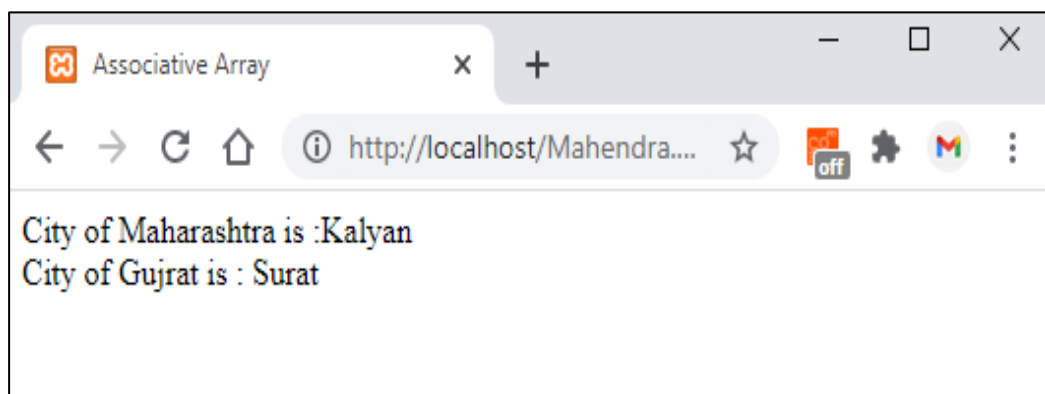The named keys can be used in script:

Program Code:

```
<html>
      <head>
            <title>Associative Array</title>
      </head>
      <body>
            <?php
                  $City ["Maharashtra"]= "Kalyan";
                  $City ["Gujrat"]= "Surat";
                  $City ["Goa"]= "Panji";
                  echo "City of Maharashtra is :". $City['Maharashtra'];
                  echo " <br> City of Gujrat is : ".$City['Gujrat'];
                  ?>
      </body>
</html>
```

Output:-

c. Multidimensional Arrays :

A multidimensional array is an array containing one or more arrays:

PHP supports multidimensional arrays that are two, three, four, five, or more levels deep. However, arrays more than three levels deep are hard to manage for most people.

We can store the data from the table above in a two-dimensional array, like this:

```php
$cars = array
    {
      array( "Volvo", 22,18);
      array ("BMW",15.23);
      array( "Saab",5,2);
      array("Land Rover",17,15);
    };
```

Now the Multidimensional $cars arrays contains four arrays, and it has two indices row and column.
To get access to the elements of the $cars array we must point to the two indices (row and column.) :

Program code:

```php
<html>
<head>
        <title>Multidimesional Array</title>
</head>
<body>
        <?php
                $person=array(
                array("Name"=>"Mahendra","Mo.No"=>1234567890,
                "Email"=>"mmsawant2605@gamil.com"),

                array("Name"=>"Saurabh","Mo.No"=>1234567890,
                "Email"=>"srtekade1302@gamil.com"),

                 array("Name"=>"Vivek","Mo.No"=>1234567890,
                "Email"=>"vivek491@gamil.com")
                        );
        echo "Mo.No of ". $person[0]["Name"]. " is ". $person[0]["Mo.No"].
        " And Email is ". $person[0]["Email"]. "<br>";
```

```php
    echo "Mo.No of ". $person[1]["Name"]. " is ". $person[1]["Mo.No"].
    " And Email is ". $person[1]["Email"]. "<br>";

    echo "Mo.No of ". $person[2]["Name"]. " is ". $person[2]["Mo.No"].
    " And Email is ". $person[2]["Email"]. "<br>";

?>
</body>
</html>
```

Output:-