ARRAYs

* Array are divided in 3 types:
1) Numeric Array
11) Associative Array
111) Multidimensional Array.

* Array is a linear collection or group of multiple amount of data. there are dynamic arrays not static.

* Array can be defined in PHP

$variable_name = array ( );

* Here in PHP dynamic arrays are created. Here by default indexing starts with integer value but it is not necessary that the indexing should be an integer. It can be any number.

* There are 3 types of Arrays:
ABOVE ↑

1) Here indexing can be assigned automatically (always starts with 0) or manually

$arex = array ( );
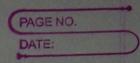$arex [0] = 12;   // MANUAL ASSIGNMENT
$arex ['a'] = 13;

```php
<?php
    $cars = array ("BMW", "volvo");
    echo $cars [0] . "<br>";
    echo $cars [1] . "<br>";
?>
```

```php
<?php
    $cars = array ("BMW", "volvo");
    $len = count ($cars);
    for ($x = 0 ; $x < $len ; $x++)
    {   echo $cars [$x] . "<br>"; }
    echo "<br>";
?>
```

11) <u>Associative Array's</u> each ID key is associated with a value. when storing a data about specific named values a numeric array is not always the best way to do it. with this array we can use the value as key and assign the value to them.

```php
<?php
    $age = array ("Peter" => "37", "Ben" => "35");
        echo "Peter is". $age ['Peter']. "years old!";
?>
```

\#   Key => Value

Indexing   arrow operator   Value

INDEXING

KEY VALUE PAIRS

```php
<?php
    $age = $array ("Peter" => "37", "Ben" => "35");
    foreach ($age as $x => $xvalue)
```

INDEXING   VALUE

```php
    { echo "key = ". $x , "value = ". $xvalue; }
?>
```

III) <u>Multidimensional Array</u> is an array containing one or more arrays. the dimension of an array indicates the number you need to select n element   INDICES

for a 2D array, you need 2 indices to select an element
for a 3D array, you need 3 indices to select an element.

2D array is an array of array, 3D array is an array of array of array.

```php
        <?php
            $arex = array (        0 , 1 , 2
auto  —     $arex [0] = array (12, 13, 14);    // 2D array
      OR                                       declaration
            $arex [0][0] = 12;
manual      $arex [0][1] = 13;                 [0] =>
            $arex [0][2] = 14;                 [0] = 12
            echo "<pre>";                      [1] = 13
            print_r ($arex);                   [2] = 14
                 array function printing values of array.
        ?>      echo "<pre>";
```

```php
<?php
    $cars = array (
        array ("Volvo", 22, 18);
        array ("BMW", 15, 13);
        array ("Seat", 5, 2));
    echo $cars [0][0]. "In STOCK :". $cars [0][1].
        ", Sold out :". $cars [0][2]. "<br>";
```

Multidimensional array
Array in array

↓ OUTPUT

Volvo   In STOCK : 22 , Sold OUT : 18