

Group C

Practical 6

Title: Write a program that will accept an array of integers as input, and output an array where for each item in the source array, the new array will perform the following operations:

- a. For even numbers divide by 2
- b. For odd numbers multiply by 3

Objective : Array handling in PHP

Theory :

Arrays in PHP is a type of data structure that allows us to store multiple elements of similar data type under a single variable thereby saving us the effort of creating a different variable for every data. The arrays are helpful to create a list of elements of similar types, which can be accessed using their index or key. Suppose we want to store five names and print them accordingly. This can be easily done by the use of five different string variables. But if instead of five, the number rises to a hundred, then it would be really difficult for the user or developer to create so many different variables. Here array comes into play and helps us to store every element within a single variable and also allows easy access using an index or a key. An array is created using an array() function in PHP.

There are basically three types of arrays in PHP:

- Indexed or Numeric Arrays: An array with a numeric index where values are stored linearly.
- Associative Arrays: An array with a string index where instead of linear storage, each value can be assigned a specific key.
- Multidimensional Arrays: An array which contains a single or multiple array within it and can be accessed via multiple indices.

Code:

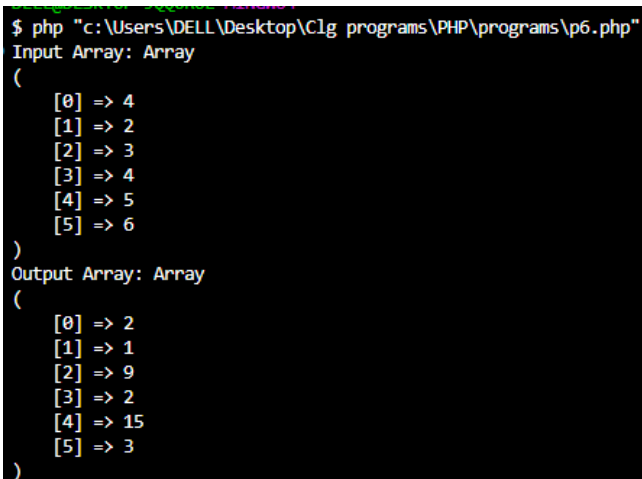
```
<?php
function transformArray($inputArray)
{
    $outputArray = [];
    foreach ($inputArray as $number) {
        if ($number % 2 == 0) {
            // Even number: divide by 2
```

```

        $outputArray[] = $number / 2;
    } else {
        // Odd number: multiply by 3
        $outputArray[] = $number * 3;
    }
}
return $outputArray;
}
$inputArray = [4, 2, 3, 4, 5, 6];
$outputArray = transformArray($inputArray);
echo "Input Array: ";
print_r($inputArray);
echo "Output Array: ";
print_r($outputArray);
?>

```

Output:



```

$ php "c:\Users\DELL\Desktop\Clg programs\PHP\programs\p6.php"
Input Array: Array
(
    [0] => 4
    [1] => 2
    [2] => 3
    [3] => 4
    [4] => 5
    [5] => 6
)
Output Array: Array
(
    [0] => 2
    [1] => 1
    [2] => 9
    [3] => 2
    [4] => 15
    [5] => 3
)

```

Conclusion:

Hence completed a PHP program that will accept an array of integers as input, and output an array where for each item in the source array, the new array will perform the following operations:

- a. For even numbers divide by 2
- b. For odd numbers multiply by 3