

## Tutorial 4d

### JavaScript: Arrays

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#### Objective

By finishing this tutorial, you should:

- know how to use array in JavaScript
- understand the concept of array

#### Preparing the Tutorial's Materials

1. Create new folder
2. Download "Tutorial 4d – Material" and place it in the folder you have created before
3. Extract or unzip the file (using WinZip) into the same folder

#### Using Array in JavaScript

1. Open and complete file **T4d-1.html** to produce output as in Figure 1. Answer to this question is given below. When finished, preview the program in web browser and understand what the program done especially on the **bold codes**.

```
<html>
<head>
  <title>Arrays</title>
</head>
<body>
  <table border="1" cellspacing="0">
    <tr align="center">
      <th>Product's Name</th>
      <th>Unit Price <br> (RM)</th>
      <th>Quatity</th>
      <th> Price <br> (RM)</th>
    </tr>
    <script language="Javascript">
      var products = new Array("Speaker", "Head phone", "Keyboard","Mouse");
      var prices= [7,15,12,30,10]; //another format for creating array

      var qty_count=0;
      var total_unitprice=0;
      var total_price=0;
      for (var i=0; i<products.length; i++)
      {
        total_unitprice += prices[i];

        document.writeln("<tr align='right'>");
        document.writeln("<td align='left'>", products[i], "</td>", "<td>", prices[i], "</td>" );
        document.writeln("<td>", '&nbsp;   ', "</td>");
        document.writeln("<td>", '&nbsp;   ', "</td>");
        document.writeln("</tr>");
      }
    </script>
    <tr align="right">
      <th colspan="2" align="right">Total </th>
      <td> <script language="javascript"> </script> </td>
      <td> <script language="javascript"> </script> </td>
    </tr>
  </table>
  <br>
  The average of Unit Price:
  <b><font color="red">
    <script language="javascript"> document.writeln(total_unitprice/prices.length); </script>
  </font></b>
</body>
</html>
```

Product's Name	Unit Price (RM)	Quatity	Price (RM)
Speaker	7		
Head phone	15		
Keyboard	12		
Mouse	30		
<b>Total</b>			

The average of Unit Price: **12.8**

**Figure 2: Output for Question 1**

Product's Name	Unit Price (RM)	Quatity	Price (RM)
Speaker	7	10	70
Head phone	15	30	450
Keyboard	12	25	300
Mouse	30	8	240
<b>Total</b>		73	1060

The average of Unit Price: **12.8**

(a) ↓  
(b) ↓  
(c) ↑  
(d) ↑

**Figure 1: Output for Question 2**

2. Next, insert codes in the same file to complete the output as shown in Figure 2.
  - a. “quantity” for each product is read from array
  - b. This part is calculated using the following formula:  $price = quantity * unit\_price$
  - c. Summation of “quantity”
  - d. Summation of “price”