Practical on Internet Technologies

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1 Write a program in HTML of the following:

1. To insert two image files.
2. To use hyperlink to connect two pages.
3. To insert three headings of different sizes.

Date of Experiment:

07/11/2022

Objective:

Using html we have to demonstrate how to insert image, how to create hyper link, how to insert heading of different sizes in a web page.

Program:

```
<html>
  <head>
    <title>
      Question 1
    </title>
  </head>
  <body>
    <a href="secondpage.html">Next Page</a><br><hr>
    <h1>Images</h1>
    <img src="img/picture1.png" width="500px" alt="Man and Women" /><br>
    <img src="img/picture2.png" width="500px" alt="Woman" />
  </body>
</html>
```

Output:

Figure 1: First Page

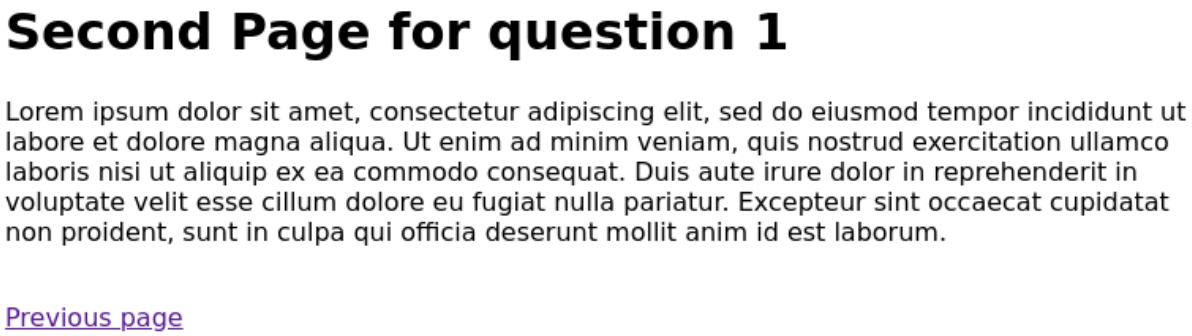


Figure 2: Second Page

2 Write a program in HTML to display the following table

Year	India	UK
2016	70	80
2017	65	62

Date of Experiment:

07/11/2022

Objective:

Demonstrate how to insert a table in a web page using html.

Program:

```
<html>
  <head>
    <title>
      Table
    </title>
  </head>
  <body>
    <table border="1px">
      <th>Year</th> <th>India</th> <th>UK</th>
      <tr> <td>2016</td> <td>70</td> <td>80</td> </tr>
      <tr> <td>2017</td> <td>65</td> <td>62</td> </tr>
    </table>
  </body>
</html>
```

Output:

Year	India	UK
2016	70	80
2017	65	62

3 Write a program in JavaScript to multiply two numbers using two text boxes, one command button and on-click event handler

Date of Experiment:

07/11/2022

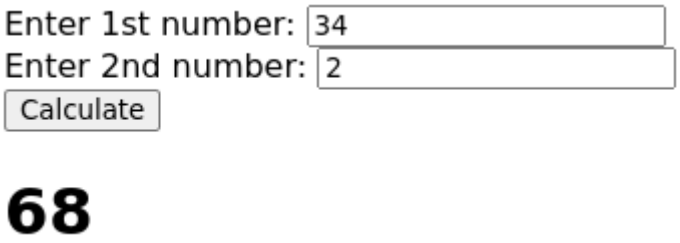
Objective:

Multiply two numbers using two text boxes, one command button and on-click event handler.

Program:

```
<html>
  <head>
    <title>
      Question 3
    </title>
  </head>
  <body>
    <script>
    function multiply() {
      n1 = document.getElementById("frst").value;
      n2 = document.getElementById("scnd").value;
      document.getElementById("result").innerHTML=n1*n2;
    }
  </script>
    Enter 1st number: <input type="text" id="frst" /> <br>
    Enter 2nd number: <input type="text" id="scnd" /> <br>
    <input type="button" value="Calculate" onclick="multiply()" />
    <h1 id="result"></h1>
  </body>
</html>
```

Output:



4 Write a HTML program to input name, roll no, semester, department & year of a student and display the output in a tabular form

Date of Experiment:

08/11/2022

Objective:

Using HTML we have to input name, roll no, semester, department & year of a student and display the output in a tabular form.

Program:

```
<html>
  <head>
    <title>Tabular form
    </title>
  </head>
  <body>
    <table>
      <tr>
        <th>Name</th> <th>Roll no</th> <th>Semester</th>
        <th>Department</th> <th>Year</th>
      </tr>
      <tr>
        <td> <input type="text"> </td>
        <td> <input type="text"> </td>
        <td> <input type="text"> </td>
        <td> <input type="text"> </td>
        <td> <input type="text"> </td>
      </tr>
    </table>
  </body>
</html>
```

Output:

Name	Roll no	Semester	Department	Year
Swapnil	7070	5	Computer science	2023

5 Write a program to design a database of a student with attributesname, roll no, contact no, DOB, department, year in XML.

Date of Experiment:

10/11/2022

Objective:

Using XML we have to design a database of a student with attributes-name, roll no, contact no, DOB, department, year.

Program:

```
<student>
  <name>
    <s_name>Masuk</s_name>
    <s_name>Moinak</s_name>
    <s_name>Swapnil</s_name>
    <s_name>Srijani</s_name>
  </name>
  <roll>
    <s_roll>1001</s_roll>
    <s_roll>1002</s_roll>
    <s_roll>1003</s_roll>
    <s_roll>1004</s_roll>
  </roll>
  <contact>
    <c_no>99000000</c_no>
    <c_no>95555000</c_no>
    <c_no>96500000</c_no>
    <c_no>94500000</c_no>
  </contact>
  <dob>
    <birth>10-05-2000</birth>
    <birth>23-03-2001</birth>
    <birth>13-09-2002</birth>
    <birth>23-06-2002</birth>
```

```
  </dob>
  <dep>
    <dep_n>Computer Application</dep_n>
    <dep_n>Computer Application</dep_n>
    <dep_n>Computer Application</dep_n>
    <dep_n>Computer Application</dep_n>
  </dep>
  <yrs>
    <y_n>2023</y_n>
    <y_n>2023</y_n>
    <y_n>2023</y_n>
    <y_n>2023</y_n>
  </yrs>
</student>
```

Output:

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
▼<student>
  ▼<name>
     <s_name>Masuk</s_name>
     <s_name>Moinak</s_name>
     <s_name>Swapnil</s_name>
     <s_name>Srijani</s_name>
   </name>
  ▼<roll>
     <s_roll>1001</s_roll>
     <s_roll>1002</s_roll>
     <s_roll>1003</s_roll>
     <s_roll>1004</s_roll>
   </roll>
  ▼<contact>
     <c_no>99000000</c_no>
     <c_no>95555000</c_no>
     <c_no>96500000</c_no>
     <c_no>94500000</c_no>
   </contact>
  ▼<dob>
     <birth>10-05-2000</birth>
     <birth>23-03-2001</birth>
     <birth>13-09-2002</birth>
     <birth>23-06-2002</birth>
   </dob>
  ▼<dep>
     <dep_n>Computer Application</dep_n>
     <dep_n>Computer Application</dep_n>
     <dep_n>Computer Application</dep_n>
     <dep_n>Computer Application</dep_n>
   </dep>
  ▼<yrs>
     <y_n>2023</y_n>
     <y_n>2023</y_n>
     <y_n>2023</y_n>
     <y_n>2023</y_n>
   </yrs>
 </student>
```

6 Write a JavaScript program to display a character string in the reverse order.

Date of Experiment:

10/11/2022

Objective:

Display a character string in the reverse order using JavaScript.

Program:

```
<html>
  <head>
    <title>
      JavaScript program to display a character string in the reverse order.
    </title>
  </head>
  <body>
    <script>
      function textrev() {
        let concatArr = "";
        input = document.getElementById("textinput").value;
        for(var i = input.length-1; i >= 0; i--) {
          concatArr = concatArr + input[i];
        }
        document.getElementById("output").innerHTML = concatArr;
      }
    </script>
    Enter the text:
    <input type="text" id="textinput" />
    <input type="button" id="button" onclick="textrev()" value="Reverse" />
    <h1 id="output">
    </h1>
  </body>
</html>
```

Output:

LinpawS

7 Write a JavaScript code to count the number of digits in a given number.

Date of Experiment:

14/11/2022

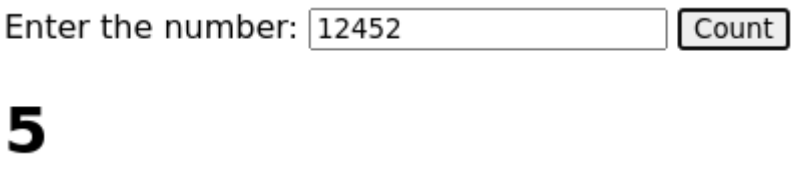
Objective:

Count the number of digits in a given number using JavaScript.

Program:

```
<html>
  <head>
    <title>
      Write a JavaScript code to count the number of digits in a given number.
    </title>
  </head>
  <body>
  <script>
    function numcount() {
      let count = 0;
      input = document.getElementById("numinput").value;
      document.getElementById("output").innerHTML = input.length;
    }
  </script>
  Enter the number: <input type="text" id="numinput" />
    <input type="button" id="button" onclick="numcount()" value="Count" />
    <h1 id="output"></h1>
  </body>
</html>
```

Output:



8 Write a HTML to design a form that has the following attribute Name, Address, E-mail, Contact Number.

Date of Experiment:

14/11/2022

Objective:

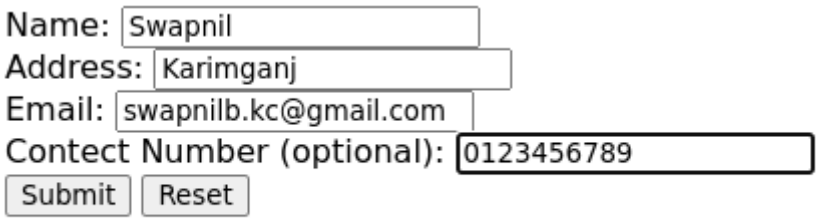
Create a HTML form that has the following attribute Name, Address, E-mail, Contact Number.

Program:

```
<html>
  <head>
    <title>Basic Form
    </title>
  </head>
  <body>
    <form>
      <div>
        <label for="name">Name:
        </label>
        <input type="text" required>
      </div>
      <div >
        <label for="name">Address:
        </label>
        <input type="text" required>
      </div>
      <div >
        <label for="email">Email:
        </label>
        <input type="email" required>
      </div>
      <div >
        <label for="number"> Contect Number
          <span class="clue">(optional):</span>
```

```
      </label>
      <input type="tel">
    </div>
    <div>
      <button type="submit">Submit
      </button>
      <button type="reset">Reset
      </button>
    </div>
  </form>
 </body>
</html>
```

Output:



9 Write a code in HTML to

1. Layout pages using tables;
2. Create navigation bars;

Date of Experiment:

25/11/2022

Objective:

Create layout pages using tables and also we have to a navigation bars.

Program:

1. Layout pages using tables:

```
<html>
  <head>
    <title>Basic HTML Layout using Tables
    </title>
  </head>
  <body>
    <table width="100%" border="1" align="center">
      <tr>
        <td colspan="2" bgcolor="forestgreen">
          <h1>Website Title or Header
          </h1>
        </td>
      </tr>
      <tr valign="top">
        <td bgcolor="skyblue" width="25%">
          This is section area...
        </td>
        <td bgcolor="red" width="60%" height="200">
          This is the main content area.
        </td>
      </tr>
      <tr>
        <td colspan="2" bgcolor="lightblue" align="center">
          Created by swapnil
```

```
      </td>
    </tr>
  </table>
 </body>
</html>
```

2. Create navigation bars:

```
<html>
 <head>
  <title>Navigation Bar
  </title>
  <style type="text/css">
   header {
    background-color: black;
    position: fixed;
    left: 0;
    right: 0;
    top: 10px;
    height: 30px;
    align-items: center;
    display: inline;
   }
   header * {
    display: inline;
   }
   header li {
    margin: 20px;
   }
   header li a {
    color: white;
    text-decoration: none;
   }
  </style>
 </head>
 <body>
  <header>
   <nav>
    <ul>
     <li> <a href="./InsertImg.html">Home</a> </li>
     <li> <a href="./layoutP.html">About</a> </li>
     <li> <a href="./Form.html">Contact</a> </li>
```

```
        <li> <a href="#">Terms of use</a> </li>
      </ul>
    </nav>
  </header>
 </body>
</html>
```

Output:

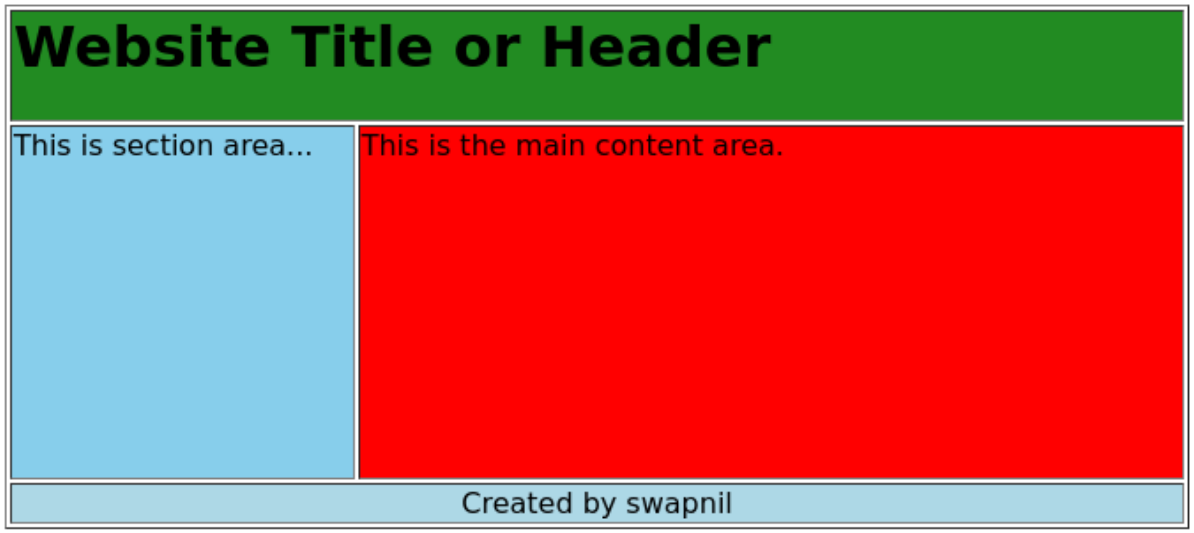


Figure 1: Layout pages using tables

Figure 2: Create navigation bars

10 Write a JavaScript code to pick a phrase from an array of sent

Date of Experiment:

25/11/2022

Objective:

Pick a phrase from an array of sentences using JavaScript.

Program:

```
<html>
  <body>
    <script>
      var keywords = ["Moinak", "Masuk", "Srijani", "Swapnil"];
      var sentence = ["Hello, I am Swapnil and my friends are Masuk, Moinak
                      and Srijani"];
      const matched = [];
      for (var index = 0; index < sentence.length; index++) {
        for (var outerIndex = 0; outerIndex < keywords.length; outerIndex++) {
          if (sentence[index].includes(keywords[outerIndex])) {
            matched.push(keywords[outerIndex]);
          }
        }
      }
      document.write("The matched elements are:-"+matched);
    </script>
  </body>
</html>
```

Output:

The matched elements are:-Moinak,Masuk,Srijani,Swapnil

11 Write a JavaScript to show event on button and list.

Date of Experiment:

28/11/2022

Objective:

Show event on button and list using JavaScript.

Program:

```
<html>
  <head>
    <title> Event
    </title>
  </head>
  <body>
    <ul>
      <li >
        <button onclick="alert('Hello World')">Click me.
        </button>
      </li>
    </ul>
  </body>
</html>
```

Output:

12 Write a program that prints a table of numbers from 5 to 15 and their squares and cubes using alert.

Date of Experiment:

28/11/2022

Objective:

Print a table of numbers from 5 to 15 and their squares and cubes using alert.

Program:

```
<html>
  <head>
    <title>
      Write a program that prints a table of numbers from 5 to 15 and their
      squares and cubes using alert.
    </title>
  </head>
  <body>
    <input type="button" id="output" value="Click the button" />
    <script>
      function printtab() {
        var out = "";
        for (i = 5; i <= 15; i++) {
          alert("square of "+i+" is "+i*i+" and the cube is "+i*i*i);
        }
      }
      document.getElementById("output").addEventListener("click", printtab);
    </script>
  </body>
</html>
```

Output:


Click the button
This page says
square of 5 is 25 and the cube is 125
OK
This page says
square of 6 is 36 and the cube is 216
OK
This page says
square of 7 is 49 and the cube is 343
OK
This page says
square of 8 is 64 and the cube is 512
OK
This page says
square of 9 is 81 and the cube is 729
OK
This page says
square of 10 is 100 and the cube is 1000
OK
This page says
square of 11 is 121 and the cube is 1331
OK
This page says
square of 12 is 144 and the cube is 1728
OK
This page says
square of 13 is 169 and the cube is 2197
OK
This page says
square of 14 is 196 and the cube is 2744
OK
This page says
square of 15 is 225 and the cube is 3375
OK

13 Write a program that prints the largest of three number.

Date of Experiment:

01/12/2022

Objective:

Print the largest of three number using JavaScript.

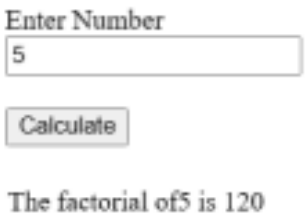
Program:

```
<html>
  <head>
    <title>
      Print the largest of three number using JavaScript.
    </title>
  </head>

  <body>
    <script type="text/javascript">
      function greatest() {
        var n1, n2, n3, grt;
        n1 = parseInt(document.getElementById("no1").value);
        n2 = parseInt(document.getElementById("no2").value);
        n3 = parseInt(document.getElementById("no3").value);
        if (n1 > n2 && n1 > n3)
          grt = n1;
        else if (n2 > n1 && n2 > n3)
          grt = n2;
        else
          grt = n3;
        document.write("The Largest number is " + grt);
      }
    </script>
    Enter First Number
    <br>
    <input type="text" id="no1">
    <br>
```

```
    Enter Second Number
    <br>
    <input type="text" id="no2">
    <br>
    Enter Third Number
    <br>
    <input type="text" id="no3">
    <br>
    <br>
    <input type="button" value="Find the largest" onclick="greatest()">
  </body>
</html>
```

Output:



14 Write a program that finds the factorial of a number n.

Date of Experiment:

01/12/2022

Objective:

Find the factorial of a number n.

Program:

```
<html>
  <head>
    <title>
      Question Number 3
    </title>
  </head>
  <body>
    <script type="text/javascript">
      function factorial() {
        var n, f;
        f = 1;
        n = parseInt(document.getElementById("num").value);
        for (var i = 1; i <= n; i++) {
          f = f * i;
        }
        document.write("The factorial of" + n + " is " + f);
      }
    </script>
    Enter Number
    <br>
    <input type="text" id="num">
    <br>
    <br>
    <input type="button" value="Calculate" onclick="factorial()">
  </body>
</html>
```

Output:

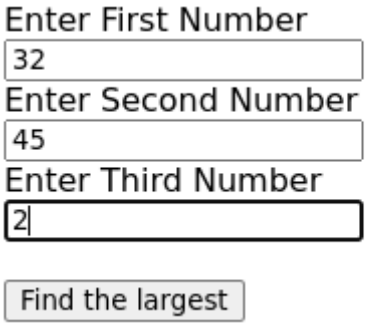


Figure 1: Input

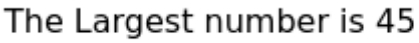


Figure 2: Result

15 Enter a list of positive numbers terminated by Zero. Find the sum and average of these numbers.

Date of Experiment:

14/12/2022

Objective:

Enter a list of positive numbers terminated by Zero also we have to the sum and average of these numbers using JavaScript.

Program:

```
<html lang="en">

  <head>
    <title>
      Question Number 4
    </title>
  </head>

  <body>
    <input type="button" value="Sum and Average" onclick="average()">
    <script>
      function average() {
        var sum = 0;
        var num;
        var x, i;
        for (i=1; ; i++){
          num = prompt("Enter array Element terminated by Zero: ");
          var x = parseInt(num);
          sum += x;
          if (num == 0) {
            var av = (sum / i);
            document.write("Sum is: "+sum+" and Average is: "+av);
            break;
          }
        }
      }
```

```
    </script>
  </body>
</html>
```

Output:

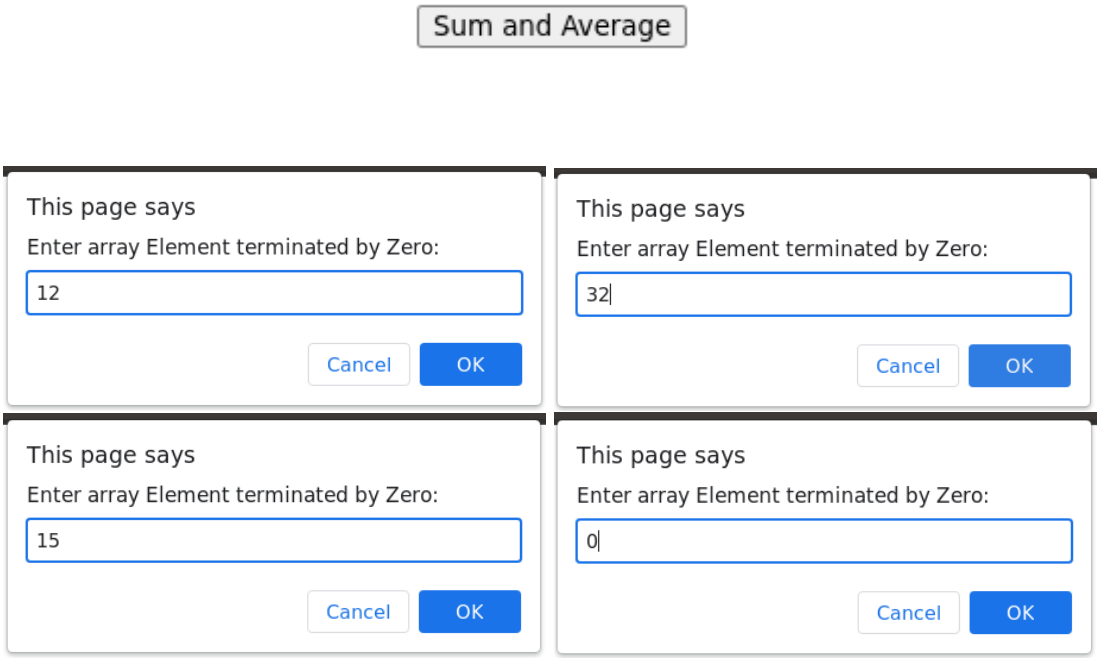


Figure 1: Input

Figure 2: Result

16 A person deposits Rs 1000 in a fixed account yielding 5% interest. Compute the amount in the account at the end of each year for n years.

Date of Experiment:

14/12/2022

Objective:

A person deposits Rs 1000 in a fixed account yielding 5% interest. Compute the amount in the account at the end of each year for n years.

Program:

```
<html>
  <head>
    <title>
      Question 5
    </title>
  </head>
  <body>
    Enter number of years::::::::::
    <br>
    <input id="n">
    <input type="button" value="Compute intrst and amount " onclick="avg()">
    <script>
      function avg() {
        var t = parseInt(document.getElementById("n").value);
        for (var i = 1; i <= t; i++) {
          var interest = parseInt((1000 * 5 * i) / 100);
          document.write("Interest after "+i+" year is :<b>"+interest+"</b>
                          and total amount after " + i + " years" + " becomes:
                          <b>" + (interest + 1000) + "</b><br>")
        }
      }
    </script>
  </body>
</html>
```

Output:

Figure 1: Input

Interest after 1 year is :**50** and total amount after 1 years becomes:**1050**
Interest after 2 year is :**100** and total amount after 2 years becomes:**1100**
Interest after 3 year is :**150** and total amount after 3 years becomes:**1150**
Interest after 4 year is :**200** and total amount after 4 years becomes:**1200**
Interest after 5 year is :**250** and total amount after 5 years becomes:**1250**
Interest after 6 year is :**300** and total amount after 6 years becomes:**1300**
Interest after 7 year is :**350** and total amount after 7 years becomes:**1350**
Interest after 8 year is :**400** and total amount after 8 years becomes:**1400**
Interest after 9 year is :**450** and total amount after 9 years becomes:**1450**
Interest after 10 year is :**500** and total amount after 10 years becomes:**1500**
Interest after 11 year is :**550** and total amount after 11 years becomes:**1550**
Interest after 12 year is :**600** and total amount after 12 years becomes:**1600**
Interest after 13 year is :**650** and total amount after 13 years becomes:**1650**
Interest after 14 year is :**700** and total amount after 14 years becomes:**1700**
Interest after 15 year is :**750** and total amount after 15 years becomes:**1750**

Figure 2: Result

17 Read n numbers. Count the number of negative numbers, positive numbers and zeros in the list.

Date of Experiment:

14/12/22

Objective:

Count the number of negative numbers, positive numbers and zeros in the list.

Program:

```
<html>
  <body>
    Enter the size of the list : <input id="n1"><br>
    <input type="button" value="Count +,-,0" onclick="avg()">
    <script type="text/javascript">
      function counter(ar) {
        var array1 = [0, 0, 0];
        for (var i = 0; i < ar.length; i++) {
          switch (ar[i] < 0) {
            case true: array1[0]++;
              break;
            case false:
              if (ar[i] == 0) array1[1]++;
              else array1[2]++;
              break;
            default: break;
          }
        } return (array1);
      }
      function avg() {
        var ar1 = [];
        var n = parseInt(document.getElementById("n1").value);
        var ar = [];
        var size = n;
        for (var a = 0; a < size; a++) {
          ar[a] = prompt("Enter the"+(a+1)+"st elements of an array");
        }
```

```
        document.write(" Elements are : "+"<br>");
        for (var j = 0; j < ar.length; j++) {
          document.write(ar[j] + '<br>')
        }
        document.write("_____________________________________" + "<br>");
        ar1 = counter(ar);
        document.write("No of Negative Elements are : "+ar1[0]+"<br>");
        document.write("No of Zero Elements are : "+ar1[1]+"<br>");
        document.write("No of Positive Elements are : "+ar1[2]+"<br>");
      }
    </script>
  </body>
</html>
```

Output:

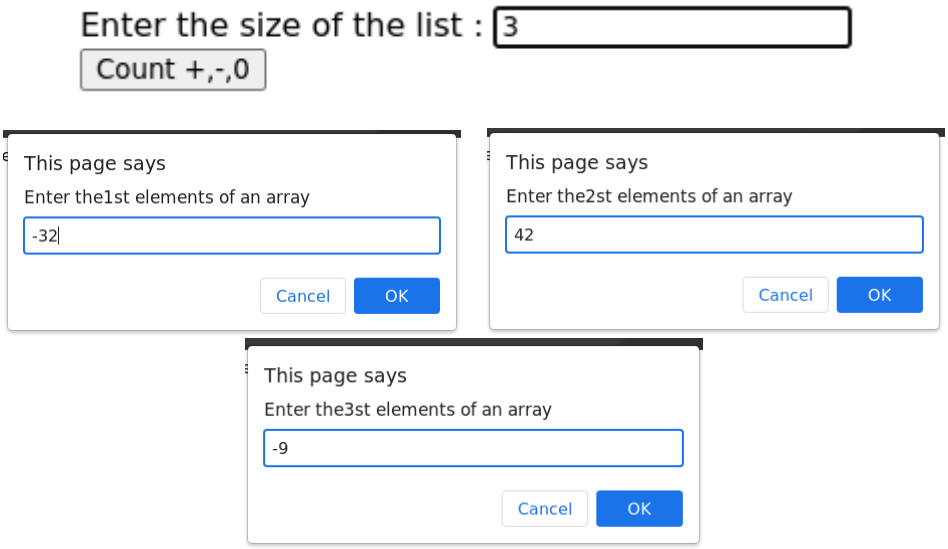


Figure 1: Input

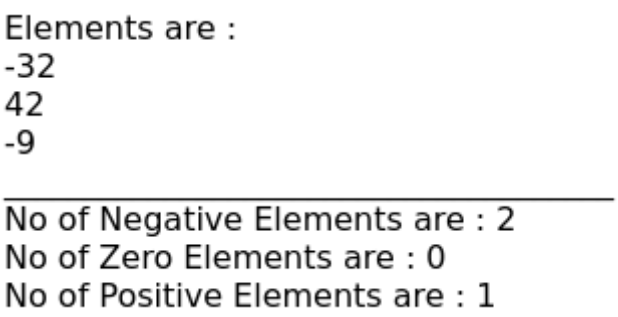


Figure 2: Result