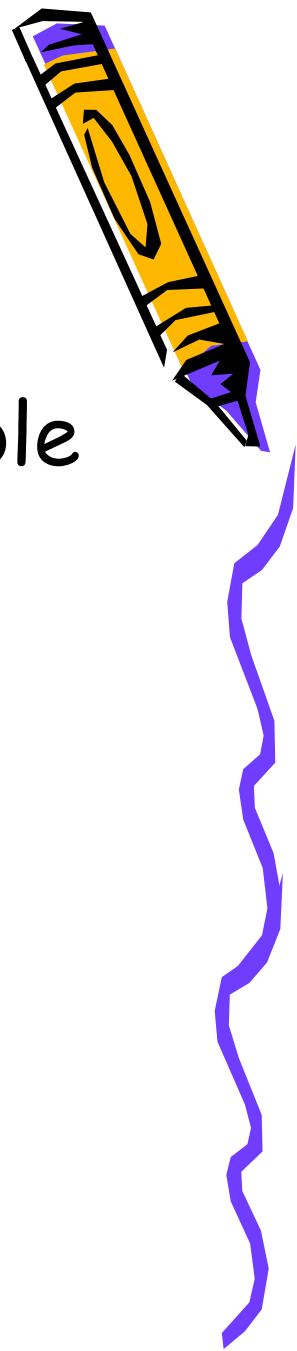# Java Script Control Structures and Conditional Statements
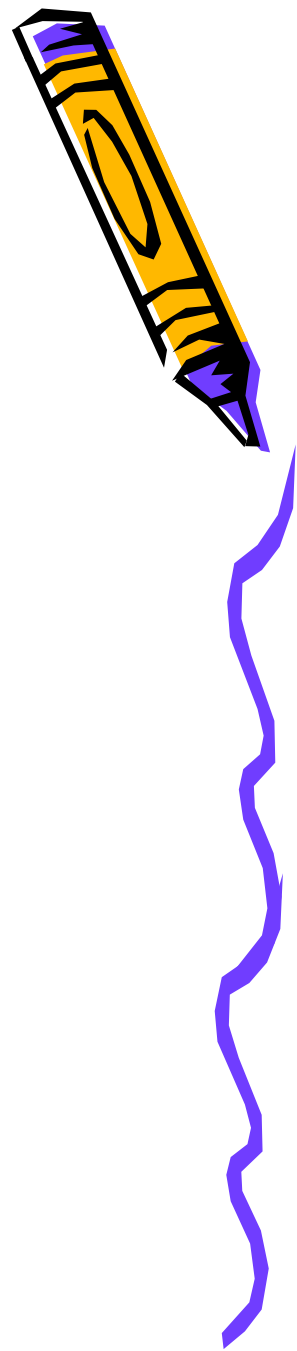
Conditional Statements in JS

- The conditional statements available in JavaScript for decision making are:
- if statement
- if...else statement
- if...else if....else statement
- switch statement

if the conditional statement

```html
<html>
    <body>
      <script type="text/javascript">
        var exforsys = 20
        if (exforsys < 30)
        {

          document.write("<b>Welcome</b>")
        }
      </script>
    </body>
  </html>
```
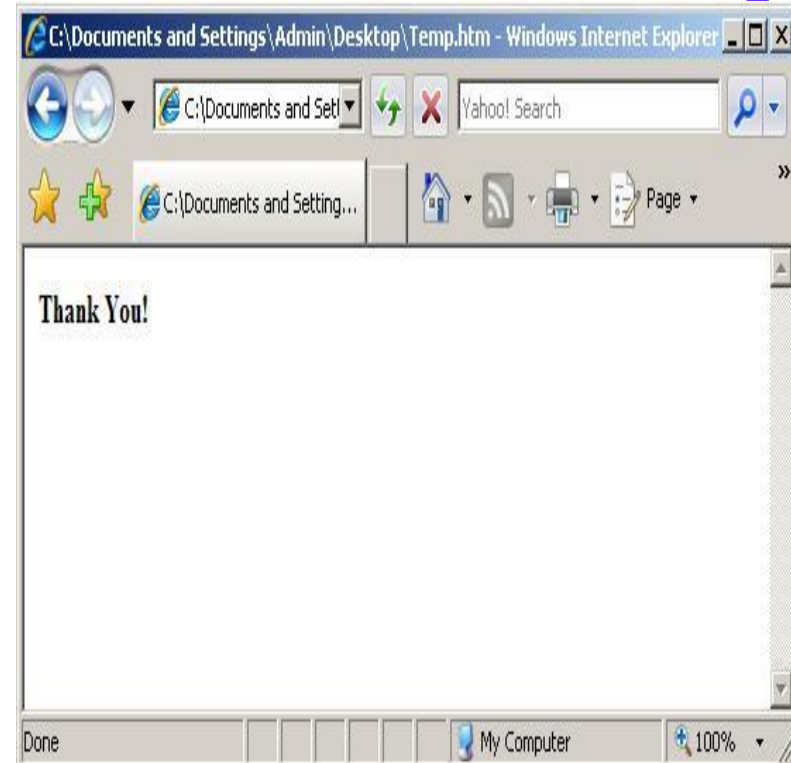
If-else statement

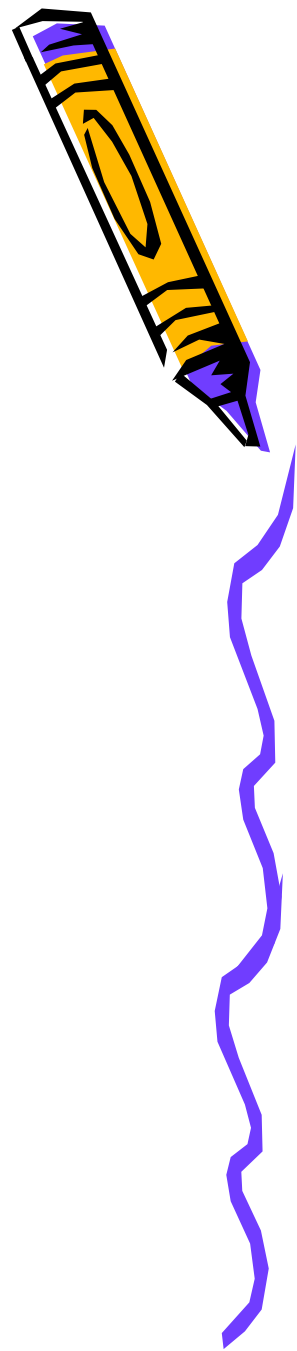```
<html>
    <body>
      <script type="text/javascript">
        var exforsys = 40
if (exforsys < 30)
{

    document.write("Welcome")
 }
 else
 {
 document.write("Thank You!")
 }
</script>
</body>
</html>
```

Output of the above script as produced in a HTML page is shown below:



C:\Documents and Settings\Admin\Desktop\Temp.htm - Windows Internet Explorer

C:\Documents and Set

Yahoo! Search

C:\Documents and Setting...

Page

**Thank You!**

Done    My Computer    100%

# Conditional Statement part-2
# if-else-if statement

```html
<html>
    <body>
        <script type="text/javascript">
            var exforsys = 20
            if (exforsys < 5)
            {

                document.write("<b>Welcome</b>")

            }
             else if (exforsys > 5 && exforsys < 10)
            {

                document.write("<b>Have a nice day!</b>")

            }
            else
            {

                document.write("<b>Thank You!</b>")

            }
        </script>
        </body>
</html>
```
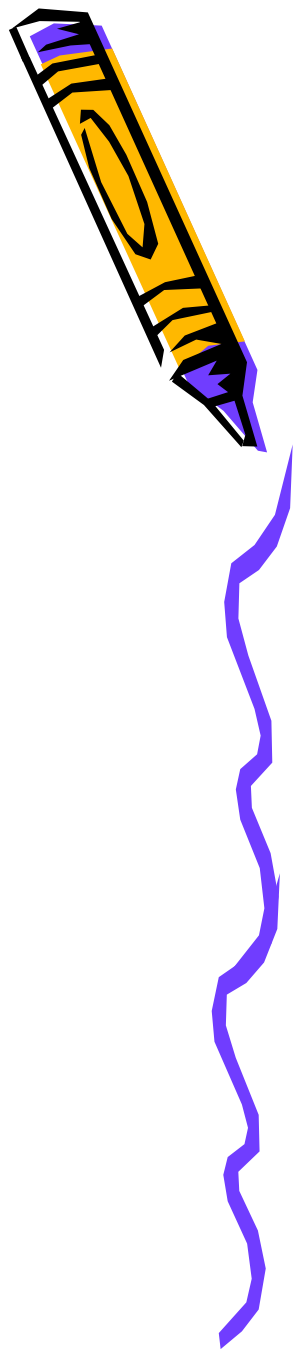
switch statement

```html
<html>
    <body>
      <script type="text/javascript">
        var exforsys = 4
        switch (exforsys)
        {
          case 1:
            document.write("<b>Hi!</b>")
            break
          case 2:
            document.write("<b>Welcome</b>")
            break
          case 3:
            document.write("<b>Thank You!</b>")
            break
          default:
            document.write("<b>Have a Great Day!</b>")
        }
      </script>
    </body>
  </html>
```
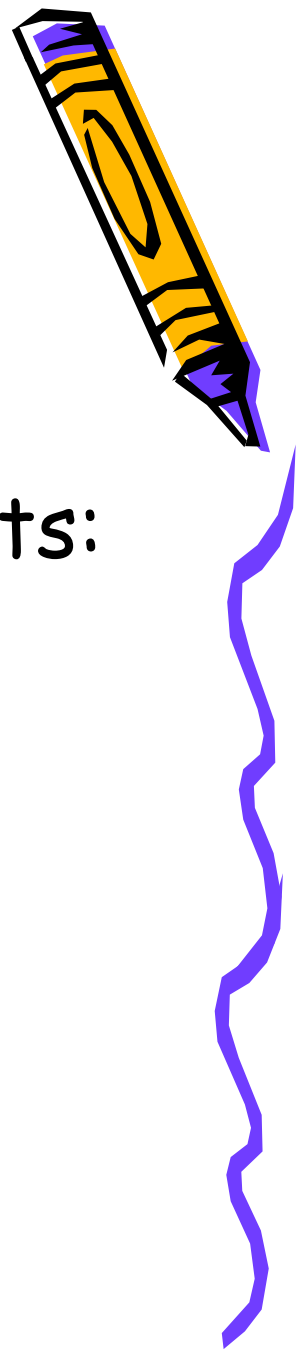
JavaScript Iterative Structures - Part I

- Looping can be achieved in JavaScript using various statements:

- for loop
- while loop
- do..while loop
- for..in loop

For-loop statement

```html
<html>
   <body>
      <script type="text/javascript">
       var exfor=1
       for (exfor=1;exfor<=15;exfor++)
       {
           document.write("Value is: " + exfor)
           document.write("<br />")
       }
      </script>
   </body>
</html>
```
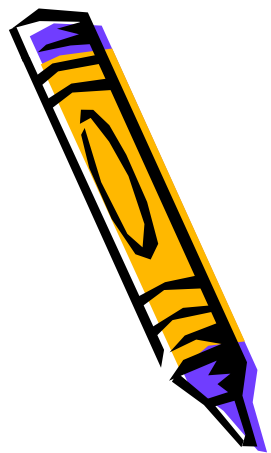
Note : The *break* command is used for breaking the loop and continuing with the execution of the code that follows after the loop.
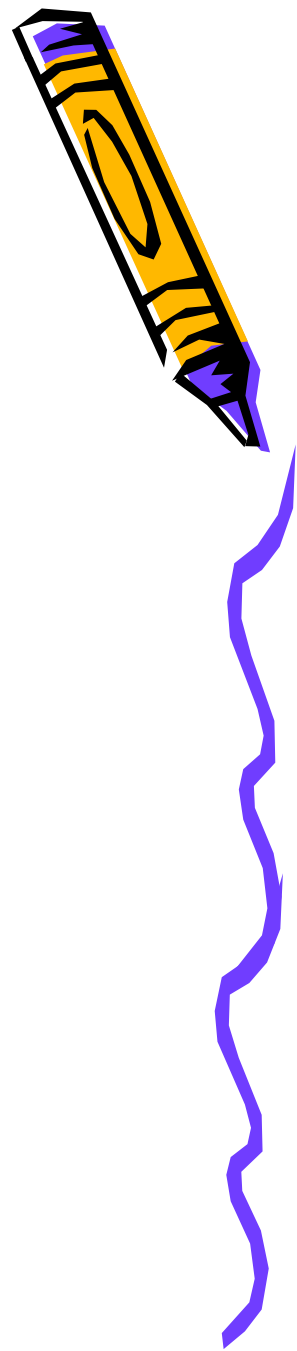The command *continue* is used for breaking the current loop and proceeding with the next value.
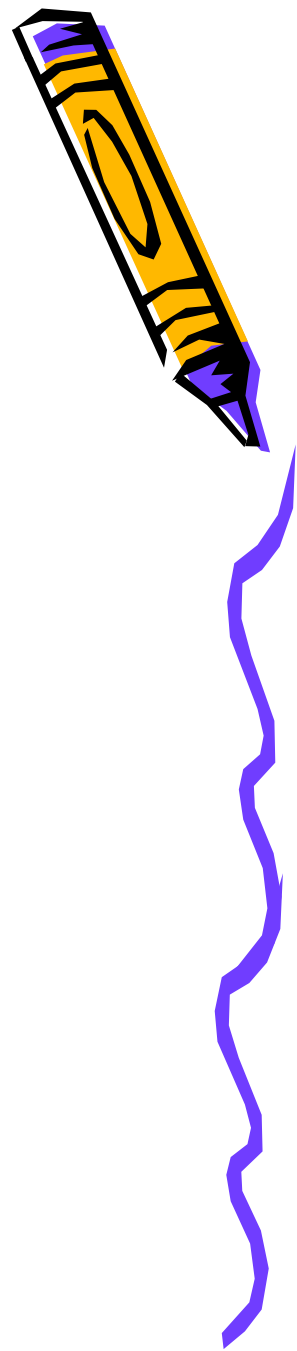
while-do

```
<html>
  <body>
     <script type="text/javascript">
       var exfor=1
       while (exfor<=15)
       {
       document.write("Value is: " + exfor)
       document.write("<br />")
       exfor=exfor+1
       }
     </script>
  </body>
</html>
```

do-while

```html
<html>
    <body>
        <script type="text/javascript">
            var exfor=1
            do
            {
            document.write("Value is: " + exfor)
            document.write("<br />")
            exfor=exfor+1
            }
            while (exfor<1)
        </script>
    </body>
</html>
```
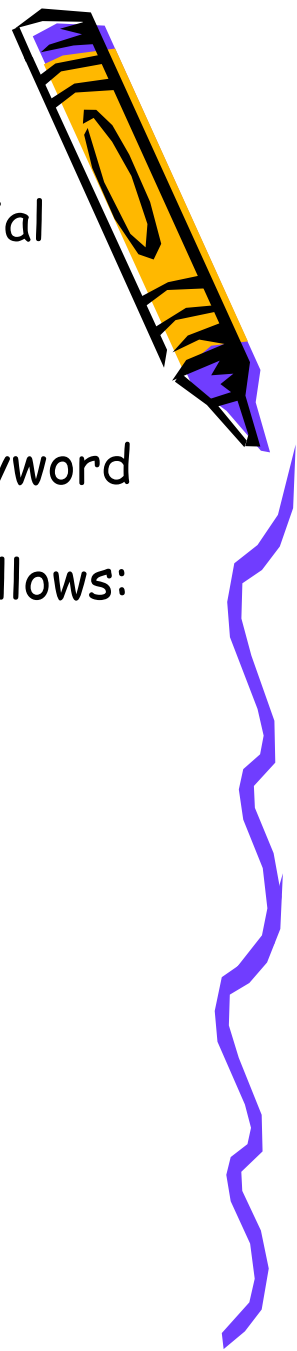
Arrays in JS

- In JavaScript, arrays are objects that have some special functionality.
- JavaScript arrays have dynamic length.
- **Defining an Array in JavaScript:**

  Array is defined in JavaScript by making use of the keyword *new.*
- General format of defining array in JavaScript is as follows:

  v**ar** varaiblename = new **Array**( )

  eg. Var your_list=new Array(100);

- Short form of declaring array

  var Exforsys=**new Array**(1,2,"three","four")

  (Note:The elements of an array need not have the same type)

Array Example

```
<html>
<head><title>My Java Script-page</title></head>
<script type="text/javascript">
 var num = new Array(10)  // definition
  var i;
     for (i=0; i<5; i++)
   {
           number=prompt("Enter a number : ","0");
           num[i]=number;
   }
document.writeln("The numbers are : ");
    for (i=0; i<5; i++)
    {
           document.writeln(num[i]);
    }
/script>
<body>
</body>
</html>
```
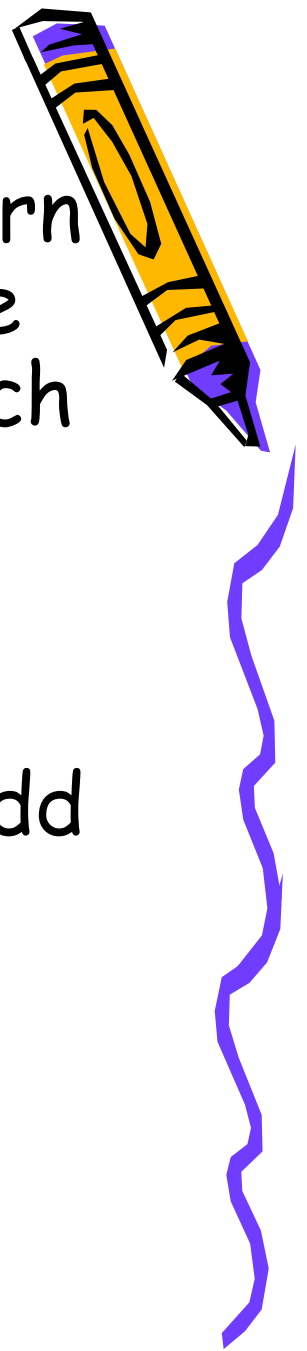
This example takes the value from key board store it in an array and display from the array

Exercise (45 minutes)

- Write a function counter() to return number of negative, zeros, positive values in the given array. Use switch statement

- Write a function to print first 20 Fibonacci numbers.

- Write a function add_digits() to add the digits of a number

  (Eg. 1234(i/p)->1+2+3+4=10(o/p))