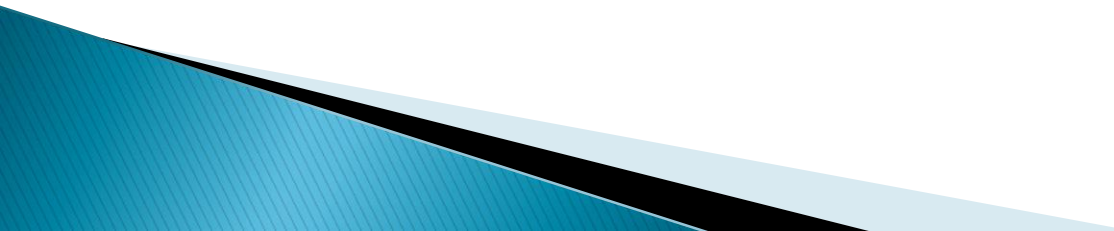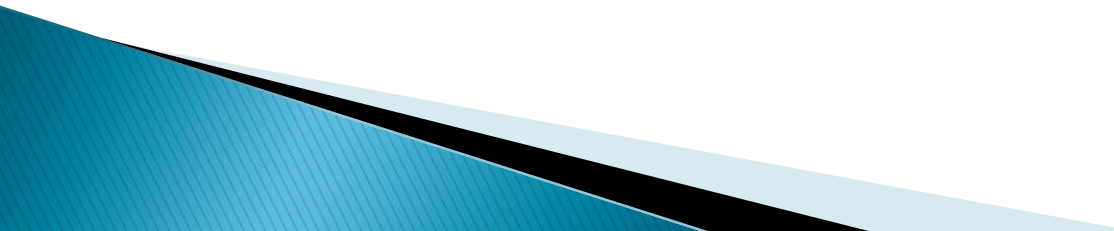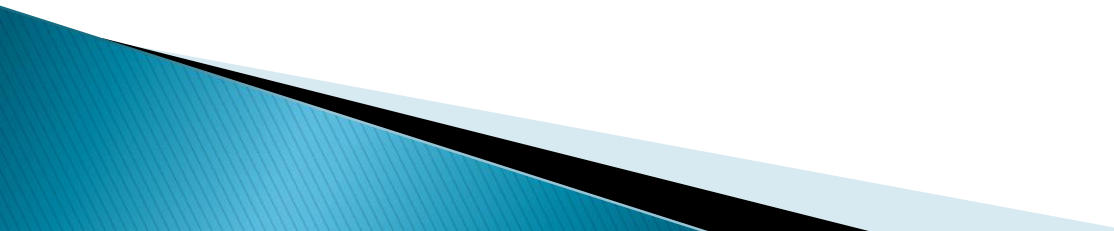# Javascript

What is JavaScript

- It is a programming language.
- It is an interpreted language.
- It is object-based programming.
- It is widely used and supported
- It is accessible to the beginner.

How can it be used?

- Use it to add multimedia elements
- With JavaScript you can show, hide, change, resize images, and create image rollovers.
- You can create scrolling text across the status bar.
- Create pages dynamically
- Based on the user's choices, the date, or other external data, JavaScript can produce pages that are customized to the user.
- Interact with the user
- It can do some processing of forms and can validate user input when the user submits the form.

Writing JavaScript

- JavaScript code is typically embedded in the HTML, to be interpreted and run by the client's browser. Here are some tips to remember when writing JavaScript commands.
- JavaScript code is case sensitive
- White space between words and tabs are ignored
- Line breaks are ignored except within a statement
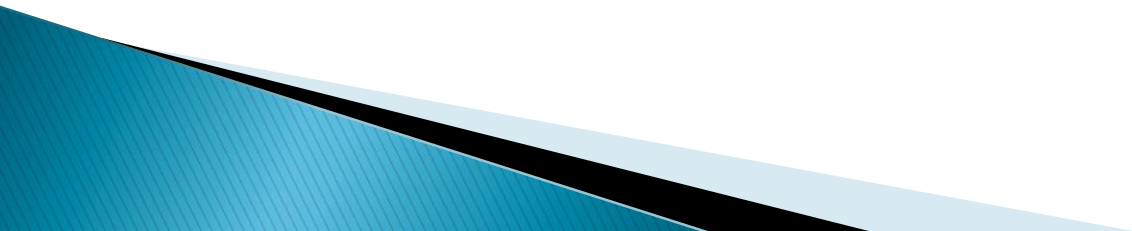- JavaScript statements end with a semi- colon ;

The SCRIPT Tag

The <SCRIPT> tag alerts a browser that JavaScript code follows. It is typically embedded in the HTML.

<SCRIPT language = "JavaScript">
statements
</SCRIPT>

Example 1

```html
<html>
<body>
<script type="text/JavaScript">
   document.write("Hello World!")
</script>
</body>
</html>
```

Example 2 - Function

- `<html>`
- `<head>`
- `<script type="text/JavaScript">`
- `<!--`
- `function popup() {`
- `alert("Hello World")`
- `}`
- `//-->`
- `</script>`
- `</head>`
- `<body>`
- `<input type="button" onclick="popup()" value="popup">`
- `</body>`
- `</html>`

Variable Names

- ・The variable name must start with a letter or an underscore.
- firstName or _myName
- ・You can use numbers in a variable name, but not as the first
- character.
- name01 or tuition$
- ・You can't use space to separate characters.
- userName not user Name
- ・Capitalize the first letter of every word except the first
- salesTax or userFirstName

Example 3

```
<HTML>
<HEAD>
<TITLE>Test Input</TITLE>
<SCRIPT LANGUAGE="JavaScript">
function testResults (form) {
    var TestVar = form.inputbox.value;
    alert ("You typed: " + TestVar);
}
</SCRIPT>
</HEAD>
<BODY>
<FORM NAME="myform" ACTION="" METHOD="GET">Enter something in the box: <BR>
<INPUT TYPE="text" NAME="inputbox" VALUE=""><P>
<INPUT TYPE="button" NAME="button" Value="Click" onClick="testResults(this.form)">
</FORM>
</BODY>
</HTML>
```

Example 4

```html
<html>
<head><title>Displaying Times and Dates</title></head>
<body>
<h1>Current Date and Time</h1>
<p>
<script language="JavaScript">
<!--
now = new Date();
localtime = now.toString();
utctime = now.toGMTString();
document.write("<b>Local time:</b> " + localtime + "<BR>");
document.write("<b>UTC time:</b> " + utctime + "</p>");
// -->
</script>
</body>
</html>
```