

# Intro to JavaScript

# Use the `<script>` tag to tell the browser you are writing JavaScript

```
<html>
  <head>
    <title>House Finder</title>
    <script type="text/javascript">
      function validateNumber(value) {
        // Validate the number
        // if (!isNumber(value))
        alert("Please enter a number.");
      }
    </script>
  </head>
  <body>
    <!-- All the rest of your HTML -->
  </body>
</html>
```

You can put the script tag into a normal HTML page, usually in the head section.

This script tag says that anything after it is a scripting language... --and in this case, the type of the scripting language is JavaScript

Everything between the opening and closing script tags is JavaScript.. the browser knows to treat this as a scripting language, and not HTML.

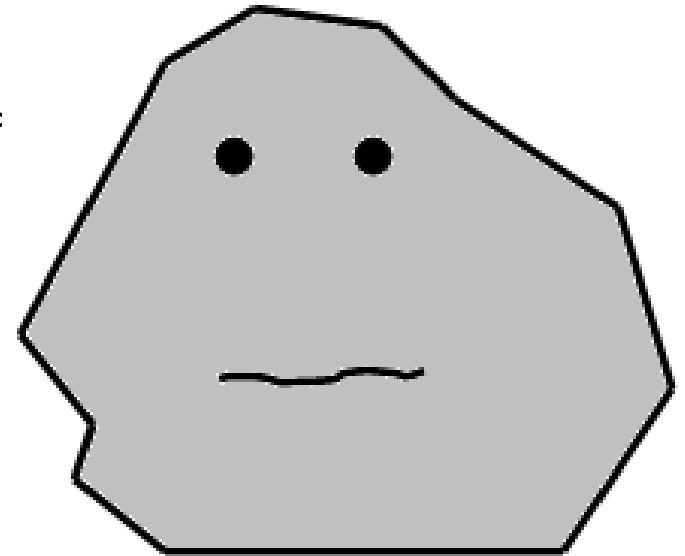
The closing script tag tells the browser that normal HTML is continuing now.

# Making iRock interactive

## 1. Create the iRock webpage

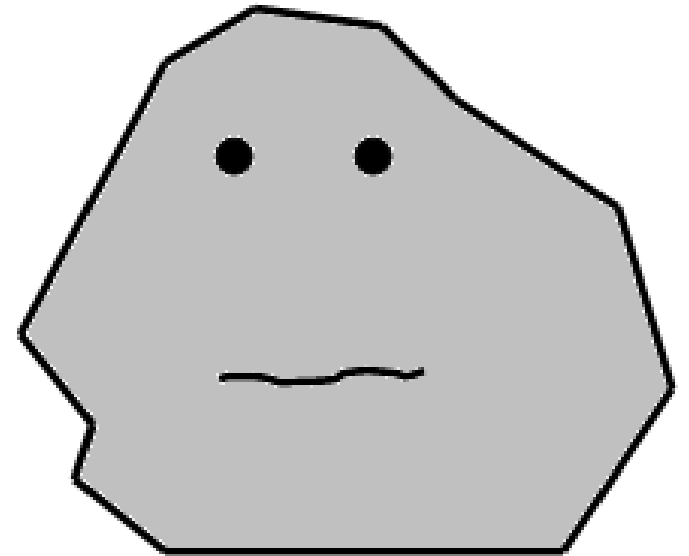
### **irock.html**

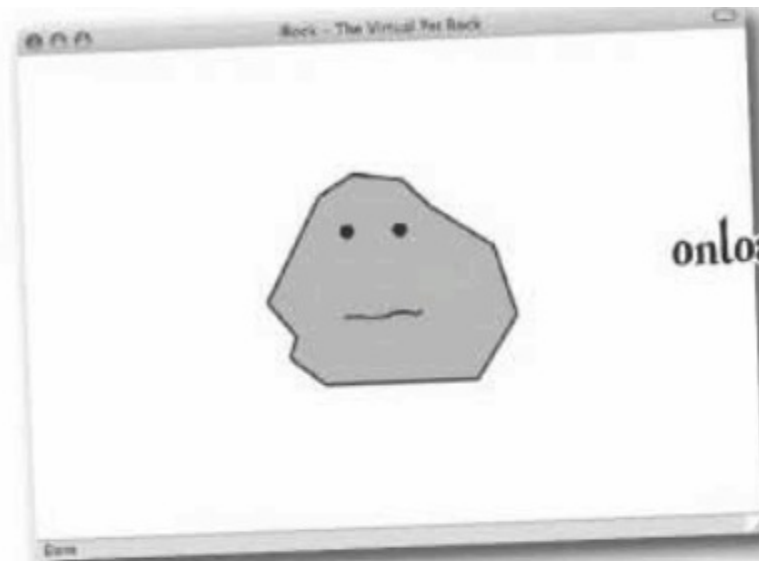
```
<html>
  <head>
    <title>iRock - The Virtual Pet Rock</title>
  </head>
  <body>
    <div style="margin-top:100px; text-align:center">
      
    </div>
  </body>
</html>
```



# Making iRock interactive

2. Add a JavaScript alert to make iRock greet users





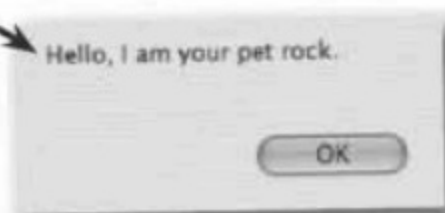
The onload event is triggered when the iRock page finishes loading in the browser.

The code for the onload event is set using the onload attribute of the <body> tag in the iRock web page.

```
<body onload="alert('Hello, I am your pet rock.');">
```

**Events are notifications that you can respond to with JavaScript code.**

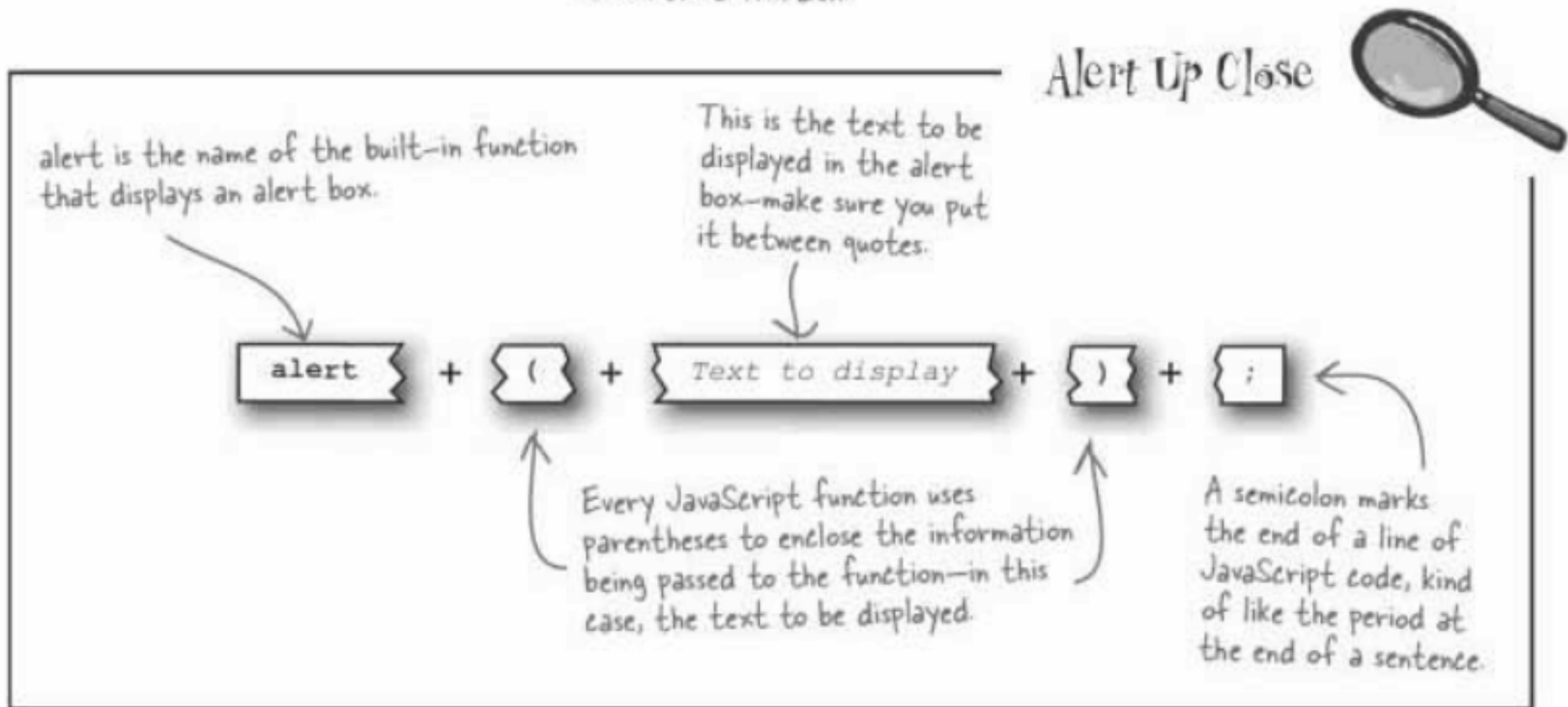
The alert() function tells the browser to display an alert box that greets the user.



# Alerting the user with a function

`alert()`

When you see parentheses immediately next to a name in JavaScript code, it's often a function.



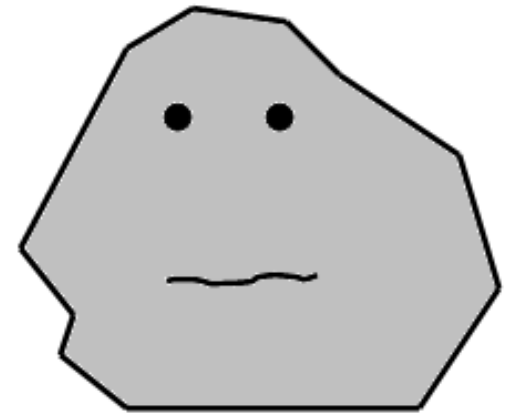
Functions are reusable pieces of code that perform common task

# Add the iRock greeting

```
<html>
  <head>
    <title>iRock - The Virtual Pet Rock</title>
  </head>
  <body onload="alert('Hello, I am your pet rock.');"
  >
    <div style="margin-top:100px; text-align:center">
      
    </div>
  </body>
</html>
```

The *onload* event is triggered when a page finishes loading.

The *alert()* function is a built-in JavaScript function that display a text message in a small pop-up window.



# Who Does What?

Match each piece of JavaScript code to what it does.

`onload`

`()`

`alert`

`;`

Display a text message in a pop-up window

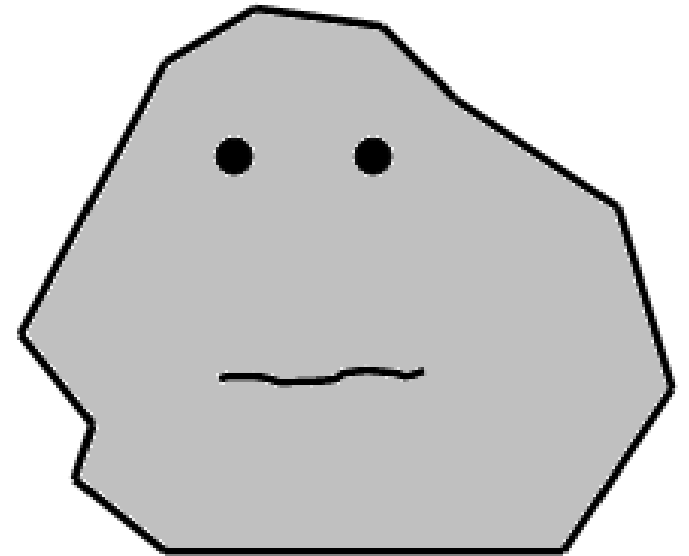
Terminate a line of JavaScript code

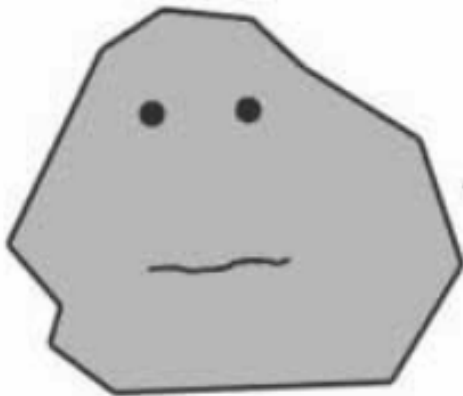
Indicate that the web page has finished loading

Enclose the information passed into a function

# Making iRock interactive

3. Write JavaScript that makes iRock ask for the user's name, respond with a personal greeting and smile.





When users click the rock,  
it should ask them for  
their name.



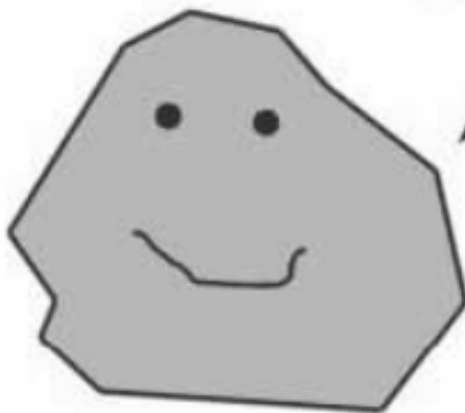
What is your name?

Cancel OK

Now the iRock  
can greet its user  
personally.



The iRock also should  
show emotion by smiling  
at the user.



It is good to meet you, Paul.

OK

# Add a function to get the user's name

```
<script type="text/javascript">
  function touchRock() {
    var userName = prompt("What is your name?", "Enter your name here.");
    if (userName) {
      alert("It is good to meet you, " + userName + ".");
      document.getElementById("rockImg").src = "rock_happy.png";
    }
  }
</script>
```

# Add a function to get the user's name

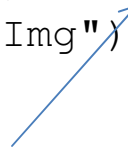
prompt() is a function to pop up a box and get a value from the user

```
<script type="text/javascript">
  function touchRock() {
    var userName = prompt("What is your name?", "Enter your name here.");
    if (userName) {
      alert("It is good to meet you, " + userName + ".");
      document.getElementById("rockImg").src = "rock_happy.png";
    }
  }
</script>
```

# Add a function to get the user's name

```
<script type="text/javascript">
  function touchRock() {
    var userName = prompt("What is your name?", "Enter your name here.");
    if (userName) {
      alert("It is good to meet you, " + userName + ".");
      document.getElementById("rockImg").src = "rock_happy.png";
    }
  }
</script>
```


Once we have a name, we greet the user personally...



# Add a function to get the user's name

```
<script type="text/javascript">
  function touchRock() {
    var userName = prompt("What is your name?", "Enter your name here.");
    if (userName) {
      alert("It is good to meet you, " + userName + ".");
      document.getElementById("rockImg").src = "rock_happy.png";
    }
  }
</script>
```

...and change the rock image to a smiling rock



# Add a function to get the user's name

prompt() is a function to pop up a box and get a value from the user

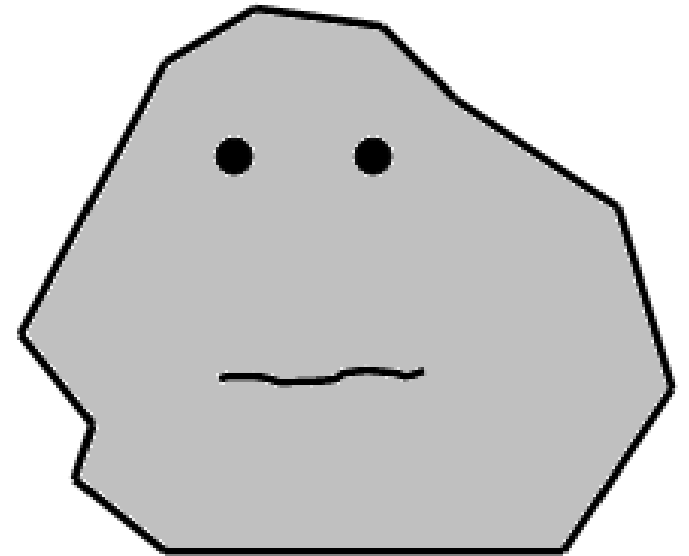
```
<script type="text/javascript">
  function touchRock() {
    var userName = prompt("What is your name?", "Enter your name here.");
    if (userName) {
      alert("It is good to meet you, " + userName + ".");
      document.getElementById("rockImg").src = "rock_happy.png";
    }
  }
</script>
```

Once we have a name, we greet the user personally...

...and change the rock image to a smiling rock

# Making iRock interactive

4. Add an event handler so that when a user clicks on the rock, the code in step 3 runs.



# Make iRock ask for the user name

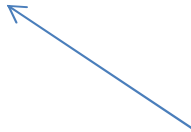
```
<div style="margin-top:100px; text-align:center">  
      
</div>
```



Change the mouse cursor to a hand when hovering over the rock.

# Make iRock ask for the user name

```
<div style="margin-top:100px; text-align:center">  
      
</div>
```



The *onclick* event attribute of the rock image causes the *touchRock()* function to get called when the rock is clicked.

# Make iRock ask for the user name

```
<div style="margin-top:100px; text-align:center">  
      
</div>
```

Change the mouse cursor to a hand when hovering over the rock.

The *onclick* event attribute of the rock image causes the *touchRock()* function to get called when the rock is clicked.

# All together

```
<html>
  <head>
    <title>iRock - The Virtual Pet Rock</title>

<script type="text/javascript">
  function touchRock() {
    var userName = prompt("What is your name?", "Enter your name here.");
    if (userName) { alert("It is good to meet you, " + userName + ".");
    document.getElementById("rockImg").src = "rock_happy.png";
    }
  }
</script>
  </head>
<body onload="alert('Hello, I am your pet rock.');" >

  <div style="margin-top:100px; text-align:center">
    
  </div>

</body>
</html>
```