
SNS COLLEGE OF ENGINEERING
COIMBATORE-107


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INSTITUTIONS

CSS3.0

CSS3.0

- CSS is used to control the style and layout of Web pages.
- CSS3 is completely backwards compatible, so we will not have to change existing designs. Browsers will always support CSS2.
- CSS3 is split up into "modules". The old specification has been split into smaller pieces, and new ones are also added.
- Some of the most important CSS3 modules are:
  - Selectors
  - Box Model
  - Backgrounds and Borders – Text Effects
  - 2D/3D Transformations
  - Animations
  - Multiple Column Layout – User Interface

CSS3 Borders

- With CSS3, we can create rounded borders, add shadow to boxes, and use an image as a border - without using a design program, like Photoshop.
- Border properties:

  border-radius

  box-shadow

  border-image
- In CSS3, the border-radius property is used to create rounded corners:

```
div {
    border: 2px solid;
    border-radius: 25px;
    }
```

CSS3.0

- In CSS3, the box-shadow property is used to add shadow to boxes:

```
div {
box-shadow: 10px 10px 5px #888888;
}
```

Text-Effects:

- CSS3 contains several new text features.
  Text properties:

  text-shadow
  word-wrap

- Text-shadow: H1 {text-shadow: 5px 5px 5px #FF0000; }
- word-wrap: H1 { word-wrap: break-word; }

CSS3 Transforms

- In CSS3 transform, we can move, scale, turn, spin, and stretch elements.
- A transformation is an effect that lets an element change shape, size and position.
- translate() • rotate() • scale() • skew()
- div {

```
transform: rotate(30deg);
transform: translate(50px,100px);
transform: scale(2,4);
transform: skew(30deg,20deg);
}
```

CSS3 Transitions

- In CSS3, we can add an effect when changing from one style to another, without using Flash animations or Java Scripts.
- CSS3 transitions are effects that let an element gradually change from one style to another.
- div {
  transition-delay: 2s;
  }
  div.hover {
  width: 300px;
  }

Multiple Column Layout

- With CSS3, you can create multiple columns for laying out text - like in newspapers!
- multiple column properties:

  column-count

  column-gap

  column-rule

```
div {
    column-count: 3;
    column-gap: 40px;
    column-rule: 3px outset #ff00ff; }
```

- Animation – In CSS3, we can create animations, which can replace animated images, Flash animations, and JavaScripts in many web pages.

CSS3 User Interface

- In CSS3, some of the new user interface features are resizing elements, box sizing, and outlining.
- In CSS3 following user interface properties:
    - resize
    - box-sizing
    - outline-offset
- In CSS3, the resize property specifies whether or not an element should be resizable by the user.
- The outline-offset property offsets an outline, and draws it beyond the border edge.

```
div {    border: 2px solid black;
outline: 2px solid red;
outline-offset: 15px; }
```

Run on the client's machine not on the server

Client-Side Programming: the JavaScript Language

History and Version of javascript

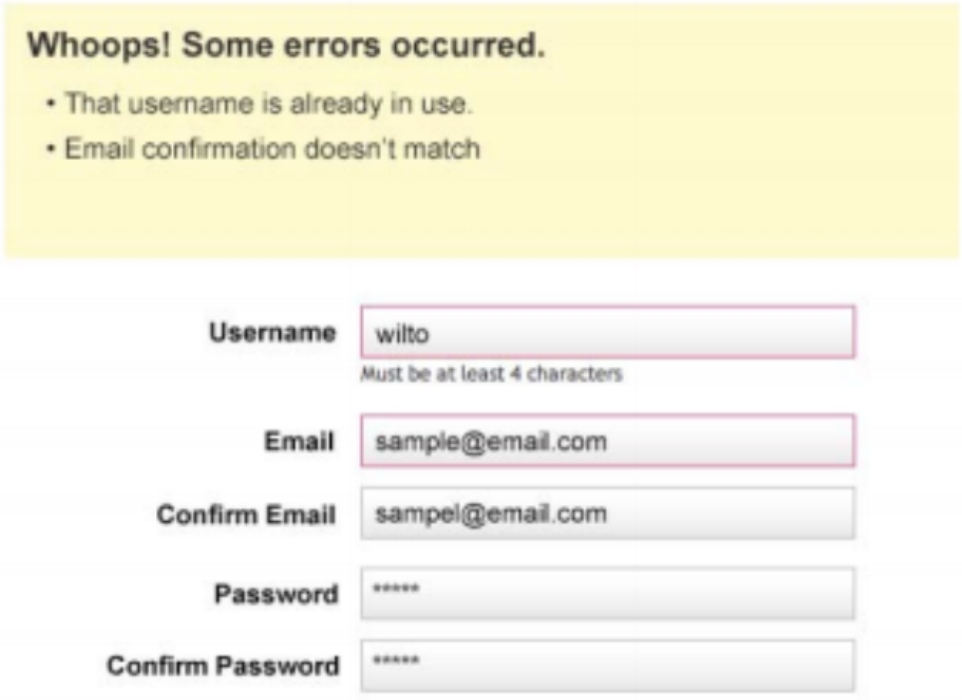
- JavaScript was initially developed by Brendan Eich as part of Netscape
- The language was called LiveScript for a while.
- Netscape navigator, the web browser, wanted a “glue language”, to use images etc. with HTML.
- JavaScript’s original name was Mocha.
- JavaScript has nothing to do with Java.
- Java was famous at that time, hence the name “JavaScript” was chosen, to ride on Java’s success.
- Microsoft created a reverse-engineered version of JavaScript, know as JScript.

History and Version of javascript

- In 1996 - 1997 JavaScript was taken to ECMA(European Computer Manufacturers Association) to carve out a standard specification.
- ECMAScript is the name of the official standard, with JavaScript being the most well known of the implementations. Other implementation includes ActionScript 3.
- ECMAScript 2 was released in 1998, ECMAScript 3 (baseline for modern day JS) was released in 1999, ECMAScript 5 was released in december 2009.
- ECMAScript 4 never happened.
- ECMAScript 6 (Officially: ECMAScript 2015), also know as ES6.
- ECMAScript simply call as javascript

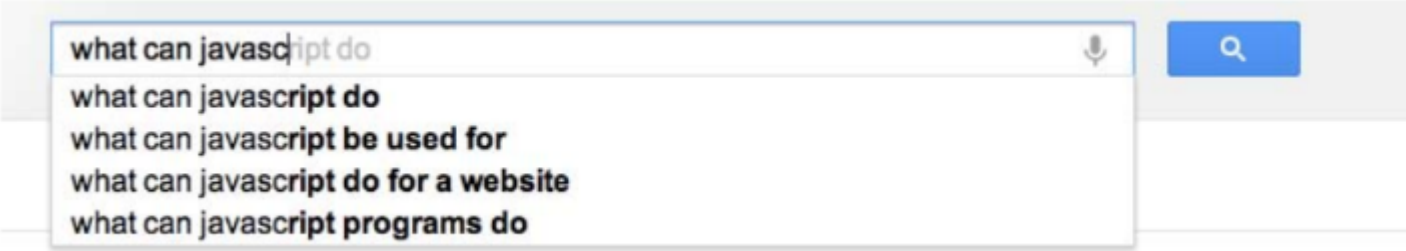
JavaScript Introduction

If you've ever attempted to register for a website, entered a username, and immediately received feedback that the username you've entered is already taken by someone else.



JavaScript Introduction

Suggest the complete term a user might be entering in a search box as he types. You can see this in action on Google.com



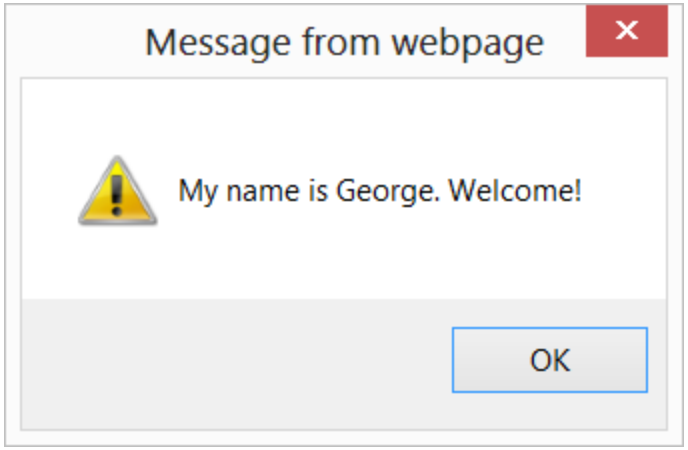
JavaScript Introduction

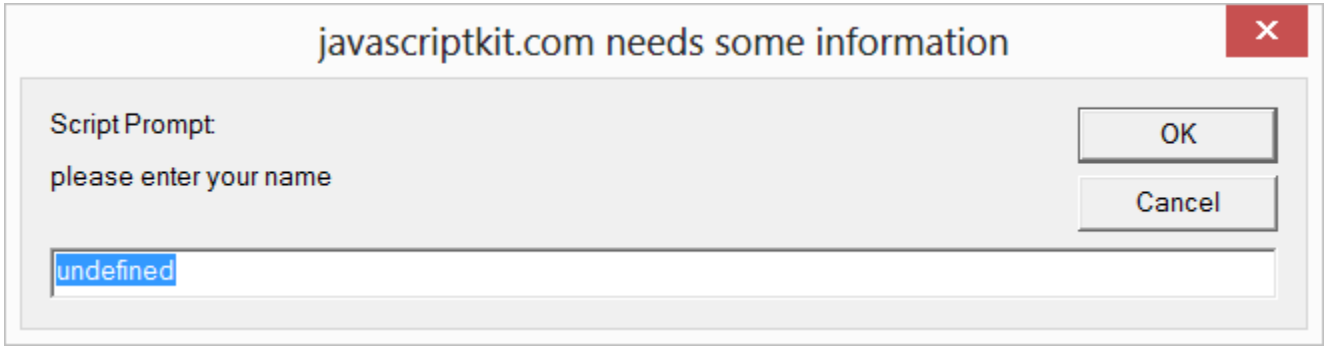
- **JavaScript** often abbreviated as **JS**, is a high-level, interpreted scripting language that conforms to the ECMAScript specification.
- Alongside HTML and CSS, JavaScript is one of the core technologies of the World Wide Web. JavaScript enables interactive Web pages and is an essential part of web applications.
- It can be written right in a web page's HTML and run automatically as the page loads.
- Scripts are provided and executed as plain text. They don't need special preparation or compilation to run.
- Today, JavaScript can execute not only in the browser, but also on the server, or actually on any device that has a special program called the JavaScript engine.
- The vast majority of websites use it, and major web browsers have a dedicated javascript engine to execute it.

JavaScript Introduction

- Let's write a "Hello World!" JavaScript program
- **Problem**: the JavaScript language itself has no input/output statements(!)
- **Solution**: Most browsers provide standard I/O methods
  - alert: pops up alert box containing text
  - prompt: pops up window where user can enter text

JavaScript Introduction





JavaScript Introduction

- File `JSHelloWorld.js`:

```
window.alert("Hello World!");
```

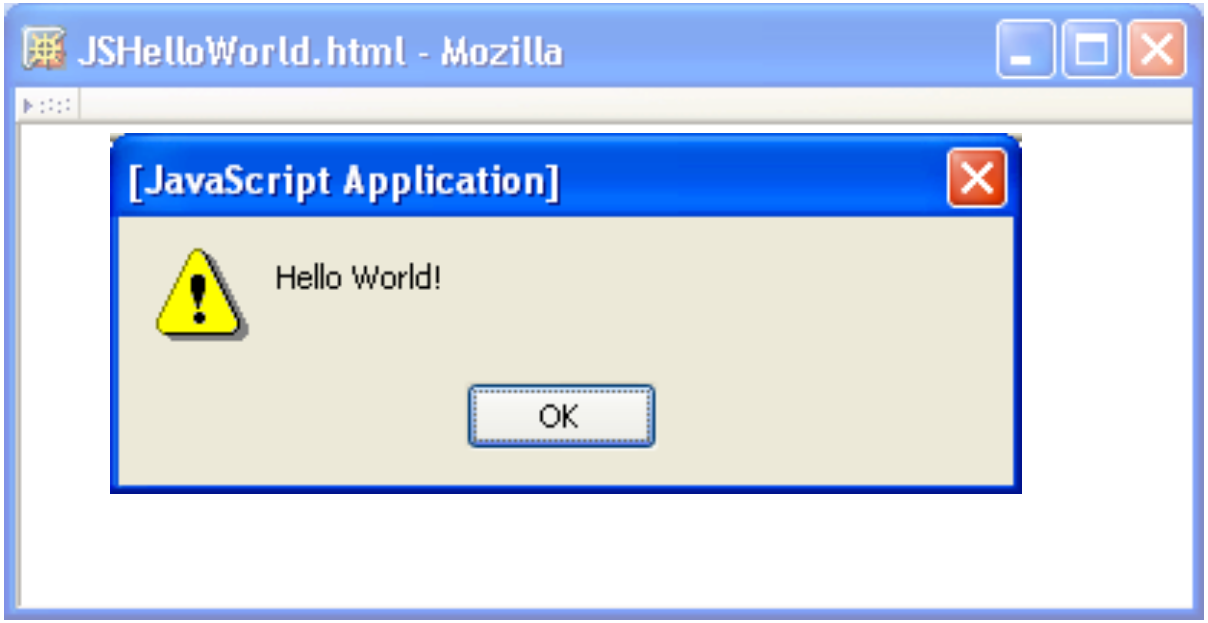
- HTML document executing this code:

```
<!DOCTYPE html
        PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
        "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>
      JSHelloWorld.html
    </title>
    <script type="text/javascript" src="JSHelloWorld.js">
    </script>
  </head>
  <body>
  </body>
</html>
```

- **External Script**
<script> element used to load and execute JavaScript code

JavaScript Introduction

- Web page and alert box generated by `JSHelloWorld.html` document and `JSHelloWorld.js` code:



JavaScript Introduction:
Adding JS to a Page

- Adding JS to your page:
  1. **Embedded Script:**

```
<script>
   … JavaScript code goes here
</script>
```

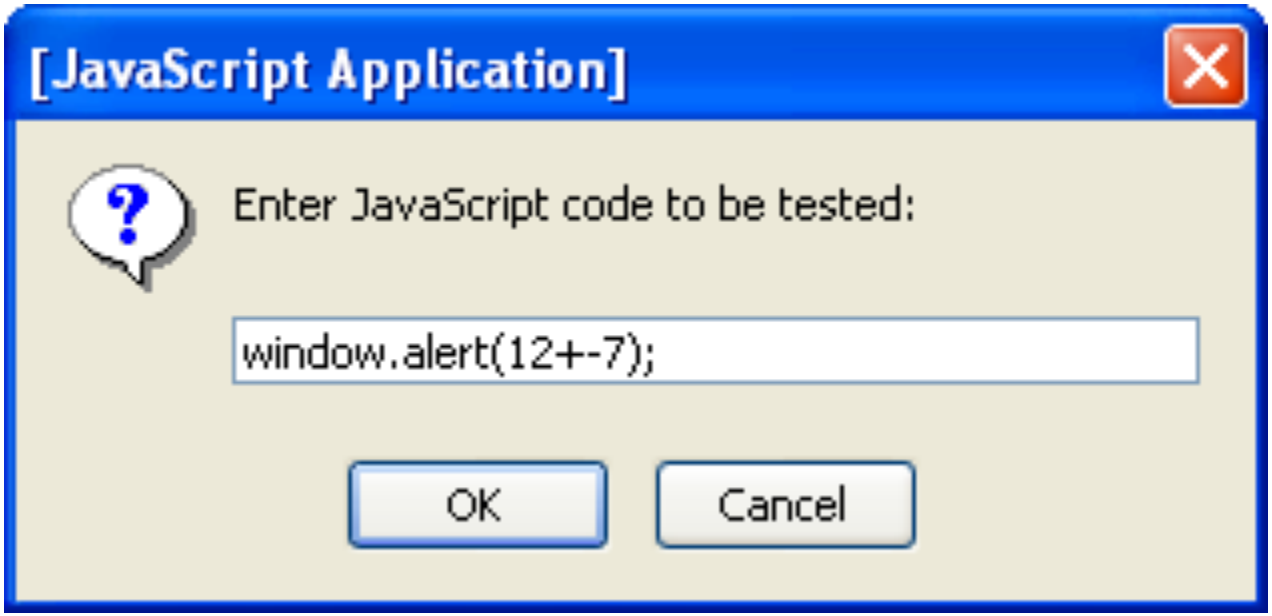
  2. **I**

```
<script src="my_script.js"></script>
```

JavaScript Introduction

- Prompt window example:

```
var inString = window.prompt("Enter JavaScript code to be tested:",
                             "");
```

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Thank You