

Making Everything Easier!™

Coding with JavaScript

FOR
DUMMIES®
A Wiley Brand

Learn to:

- Go from no coding experience to being handy with JavaScript
- Add interactive elements to a web page or site
- Develop simple apps built on JavaScript

**Chris Minnick
Eva Holland**





Coding with JavaScript

FOR
DUMMIES[®]
A Wiley Brand

by Chris Minnick and Eva Holland

FOR
DUMMIES[®]
A Wiley Brand



Coding with JavaScript For Dummies®

Published by: **John Wiley & Sons, Inc.**, 111 River Street, Hoboken, NJ 07030-5774, www.wiley.com

Copyright © 2015 by John Wiley & Sons, Inc., Hoboken, New Jersey

Media and software compilation copyright © 2015 by John Wiley & Sons, Inc. All rights reserved.

Published simultaneously in Canada

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as permitted under Sections 107 or 108 of the 1976 United States Copyright Act, without the prior written permission of the Publisher. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, (201) 748-6011, fax (201) 748-6008, or online at <http://www.wiley.com/go/permissions>.

Trademarks: Wiley, For Dummies, the Dummies Man logo, Dummies.com, Making Everything Easier, and related trade dress are trademarks or registered trademarks of John Wiley & Sons, Inc. and may not be used without written permission. All other trademarks are the property of their respective owners. John Wiley & Sons, Inc. is not associated with any product or vendor mentioned in this book.

LIMIT OF LIABILITY/DISCLAIMER OF WARRANTY: THE PUBLISHER AND THE AUTHOR MAKE NO REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE ACCURACY OR COMPLETENESS OF THE CONTENTS OF THIS WORK AND SPECIFICALLY DISCLAIM ALL WARRANTIES, INCLUDING WITHOUT LIMITATION WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE. NO WARRANTY MAY BE CREATED OR EXTENDED BY SALES OR PROMOTIONAL MATERIALS. THE ADVICE AND STRATEGIES CONTAINED HEREIN MAY NOT BE SUITABLE FOR EVERY SITUATION. THIS WORK IS SOLD WITH THE UNDERSTANDING THAT THE PUBLISHER IS NOT ENGAGED IN RENDERING LEGAL, ACCOUNTING, OR OTHER PROFESSIONAL SERVICES. IF PROFESSIONAL ASSISTANCE IS REQUIRED, THE SERVICES OF A COMPETENT PROFESSIONAL PERSON SHOULD BE SOUGHT. NEITHER THE PUBLISHER NOR THE AUTHOR SHALL BE LIABLE FOR DAMAGES ARISING HEREFROM. THE FACT THAT AN ORGANIZATION OR WEBSITE IS REFERRED TO IN THIS WORK AS A CITATION AND/OR A POTENTIAL SOURCE OF FURTHER INFORMATION DOES NOT MEAN THAT THE AUTHOR OR THE PUBLISHER ENDORSES THE INFORMATION THE ORGANIZATION OR WEBSITE MAY PROVIDE OR RECOMMENDATIONS IT MAY MAKE. FURTHER, READERS SHOULD BE AWARE THAT INTERNET WEBSITES LISTED IN THIS WORK MAY HAVE CHANGED OR DISAPPEARED BETWEEN WHEN THIS WORK WAS WRITTEN AND WHEN IT IS READ.

For general information on our other products and services, please contact our Customer Care Department within the U.S. at 877-762-2974, outside the U.S. at 317-572-3993, or fax 317-572-4002. For technical support, please visit www.wiley.com/techsupport.

Wiley publishes in a variety of print and electronic formats and by print-on-demand. Some material included with standard print versions of this book may not be included in e-books or in print-on-demand. If this book refers to media such as a CD or DVD that is not included in the version you purchased, you may download this material at <http://booksupport.wiley.com>. For more information about Wiley products, visit www.wiley.com.

Library of Congress Control Number: 2015938674

ISBN: 978-1-119-05607-2

ISBN 978-1-119-05607-2 (pbk); ISBN 978-1-119-05605-8 (ePDF); ISBN 978-1-119-05606-5 (ePub)

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2 1

Contents at a Glance

<i>Introduction</i>	1
<i>Part I: Getting Started with JavaScript</i>	5
Chapter 1: The World's Most Misunderstood Programming Language	7
Chapter 2: Writing Your First JavaScript Program	19
Chapter 3: Working with Variables	39
Chapter 4: Understanding Arrays	55
Chapter 5: Working with Operators, Expressions, and Statements	67
Chapter 6: Getting into the Flow with Loops and Branches	81
<i>Part II: Organizing Your JavaScript</i>	95
Chapter 7: Getting Functional	97
Chapter 8: Making and Using Objects	117
<i>Part III: JavaScript on the Web</i>	131
Chapter 9: Controlling the Browser with the Window Object	133
Chapter 10: Manipulating Documents with the DOM	147
Chapter 11: Using Events in JavaScript	169
Chapter 12: Integrating Input and Output	181
Chapter 13: Working with CSS and Graphics	195
<i>Part IV: Beyond the Basics</i>	211
Chapter 14: Searching with Regular Expressions	213
Chapter 15: Understanding Callbacks and Closures	225
Chapter 16: Embracing AJAX and JSON	237
<i>Part V: JavaScript and HTML5</i>	253
Chapter 17: HTML5 APIs	255
Chapter 18: jQuery	271
<i>Part VI: The Part of Tens</i>	289
Chapter 19: Ten JavaScript Frameworks and Libraries to Learn Next	291
Chapter 20: Ten Common JavaScript Bugs and How to Avoid Them	303
Chapter 21: Ten Online Tools to Help You Write Better JavaScript	313
<i>Index</i>	325



Table of Contents

<i>Introduction</i>	1
About This Book	1
Foolish Assumptions	2
Icons Used In This Book	3
Beyond the Book	4
Where to Go from Here	4
<i>Part 1: Getting Started with JavaScript</i>	5
Chapter 1: The World's Most Misunderstood Programming Language	7
What Is JavaScript?	8
The Eich-man cometh.....	8
Mocha-licious	9
We need more effects!.....	9
JavaScript grows up	9
Dynamic scripting language	10
What Does JavaScript Do?.....	12
Why JavaScript?.....	13
JavaScript is easy to learn	13
Where is JavaScript? JavaScript is everywhere!	14
JavaScript is powerful!	18
JavaScript is in demand	18
Chapter 2: Writing Your First JavaScript Program	19
Setting Up Your Development Environment	19
Downloading and installing Chrome	20
Downloading and installing a code editor	21
Reading JavaScript Code	29
Running JavaScript in the Browser Window	29
Using JavaScript in an HTML event attribute.....	30
Using JavaScript in a script element	31
Including external JavaScript files	33
Using the JavaScript Developer Console.....	36
Commenting your code.....	37



Chapter 3: Working with Variables	39
Understanding Variables	39
Declaring Variables	41
Understanding Global and Local Scope.....	42
Naming Variables.....	44
Creating Constants Using the const Keyword	46
Working with Data Types	46
Number data type	47
String data type.....	49
Boolean data type	52
NaN data type.....	53
undefined data type.....	53
Chapter 4: Understanding Arrays	55
Making a List	55
Array Fundamentals	57
Arrays are zero indexed.....	57
Arrays can store any type of data.....	58
Creating Arrays.....	59
Using the new keyword method	59
Array literal.....	59
Populating Arrays	60
Understanding Multidimensional Arrays	60
Accessing Array Elements	62
Looping through arrays	63
Array properties	63
Array methods	64
Using array methods	64
Chapter 5: Working with Operators, Expressions, and Statements	67
Express Yourself	68
Hello, Operator	68
Operator precedence	68
Types of Operators	72
Assignment operators	72
Comparison operators	73
Arithmetic operators.....	73
String operator	75
Bitwise operators.....	75
Logical operators.....	77
Special operators	78
Combining operators.....	80

Chapter 6: Getting into the Flow with Loops and Branches81

Branching Out	81
if . . . else.....	82
Switch	84
Here We Go: Loop De Loop	85
for.....	86
for . . . in	88
while loops.....	90
do . . . while	91
break and continue.....	92

Part II: Organizing Your JavaScript 95**Chapter 7: Getting Functional97**


Understanding the Function of Functions	97
Using Function Terminology	99
Define a function	99
Function head.....	99
Function body	99
Call a function.....	100
Defining parameters and passing arguments	100
Return a value	100
The Benefits of Using Functions	101
Writing Functions	104
Returning Values	105
Passing and Using Arguments.....	106
Passing arguments by value	107
Passing arguments by reference.....	109
Calling a function without all of the arguments	109
Setting default parameter values	109
Calling a function with more argument than parameters.....	110
Getting into arguments with the arguments object	110
Function Scope	111
Anonymous Function	111
Knowing the differences between anonymous and named functions.....	112
Self-executing anonymous functions.....	112
Do it Again with Recursion.....	113
Functions within Functions	114

Chapter 8: Making and Using Objects	117
Object of My Desire.....	117
Creating Objects	119
Defining objects with object literals.....	119
Defining objects with an Object constructor	120
Retrieving and Setting Object Properties.....	120
Dot notation.....	120
Square bracket notation	121
Deleting Properties.....	123
Working with Methods.....	123
Using this	124
An Object-Oriented Way to Become Wealthy: Inheritance.....	125
Constructing Objects with constructor functions.....	127
Modifying an object type	129
Creating Objects with Object.create	129

Part III: JavaScript on the Web **131**

Chapter 9: Controlling the Browser with the Window Object	133
Understanding the Browser Environment.....	133
The user interface.....	134
Loader	134
HTML parsing.....	136
CSS parsing	136
JavaScript parsing.....	136
Layout and rendering.....	137
Igniting the BOM	137
The Navigator object.....	137
The Window object.....	140
Using the Window object's methods	145
Chapter 10: Manipulating Documents with the DOM	147
Understanding the DOM.....	147
Node Relationships	149
Using the Document Object's Properties and Methods	153
Using the Element Object's Properties and Methods	155
Working with the Contents of Elements	159
innerHTML.....	160
Setting attributes	161
Getting Elements by ID, Tag Name, or Class.....	161
getElementById	161
getElementsByTagName	162
getElementsByTagName	163

Using the Attribute Object's Properties	165
Creating and appending elements	165
Removing elements	166
Chapter 11: Using Events in JavaScript	169
Knowing Your Events.....	169
Handling Events	171
Using inline event handlers	172
Event handling using element properties.....	173
Event handling using addEventListener	174
Stopping propagation.....	179
Chapter 12: Integrating Input and Output	181
Understanding HTML Forms.....	181
The form element.....	181
The label element	183
The input element.....	184
The select element.....	185
The textarea element.....	186
The button element	186
Working with the Form Object.....	187
Using Form properties	187
Using the Form object's methods.....	188
Accessing form elements	190
Getting and setting form element values	191
Validating user input	192
Chapter 13: Working with CSS and Graphics	195
Using the Style Object.....	195
Getting the current style of an element	196
Setting style properties.....	199
Animating Elements with the Style Object	200
Working with Images	203
Using the Image object.....	203
Creating rollover buttons	203
Grow images on mouseover	205
Creating an image slideshow.....	206
Using the Style Object's Animation Properties	207
<i>Part IV: Beyond the Basics</i>	<i>211</i>
Chapter 14: Searching with Regular Expressions	213
Finding It Out with Regular Expressions	213
Writing Regular Expressions.....	215
Using the RegExp object	216





Regular expression literals	217
Testing regular expressions	219
Special character in regular expressions	219
Using Modifiers	220
Coding with Regular Expressions	221
Chapter 15: Understanding Callbacks and Closures	225
What Are Callbacks?.....	225
Passing functions as arguments.....	226
Writing functions with callbacks	226
Using named callback functions	227
Understanding Closures	230
Using Closures	233
Chapter 16: Embracing AJAX and JSON	237
Working Behind the Scenes with AJAX.....	237
AJAX examples	238
Viewing AJAX in action	240
Using the XMLHttpRequest object.....	243
Working with the same-origin policy	245
Using CORS, the silver bullet for AJAX requests	247
Putting Objects in Motion with JSON.....	248
 Part V: JavaScript and HTML5	 253
Chapter 17: HTML5 APIs	255
Understanding How APIs Work.....	255
Checking HTML5 API browser support.....	256
Getting to know HTML5's APIs.....	257
Using Geolocation.....	259
What does geolocation do?	259
How does geolocation work?.....	260
How do you use geolocation	261
Combining geolocation with Google maps	263
Accessing Audio and Video.....	266
Chapter 18: jQuery	271
Writing More and Doing Less.....	271
Getting Started with jQuery	272
The jQuery Object	273
Is Your Document Ready?	274
Using jQuery Selectors.....	274
Changing Things with jQuery.....	275



Getting and setting attributes	276
Changing CSS.....	276
Manipulating elements in the DOM.....	277
Events.....	278
Using on() to attach events	279
Detaching with off().....	280
Binding to events that don't exist yet	281
Other event methods	281
Effects.....	282
Basic effects.....	282
Fading effects.....	282
Sliding effects	283
Setting arguments for animation methods.....	283
Custom effects with animate().....	283
Playing with jQuery animations	284
AJAX	285
Using the ajax() method.....	285
Shorthand AJAX methods.....	287

***Part VI: The Part of Tens* 289**

Chapter 19: Ten JavaScript Frameworks and Libraries to Learn Next 291

Angular JS.....	291
Backbone.js	293
Ember.js	294
Famo.us.....	295
Knockout.....	296
QUnit	297
underscore.js	297
Modernizr	298
Handlebars.js	299
jQuery.....	300

Chapter 20: Ten Common JavaScript Bugs and How to Avoid Them 303

Equality Confusion	304
Avoiding misuse of assignment.....	304
Dodging the equals pitfalls	304
Mismatched Brackets.....	305
Mismatched Quotes	306
Missing Parentheses	306
Missing Semicolon.....	307
Capitalization Errors	307

Referencing Code Before It's Loaded	307
Bad Variable Names	310
Scope Errors.....	310
Missing Parameters in Function Calls.....	310
Counting Errors: Forgetting That JavaScript Counts from 0.....	311

Chapter 21: Ten Online Tools to Help You Write Better**JavaScript 313**

JSLint.....	313
JSFiddle.net	314
JSBin.....	315
javascriptcompressor.com	316
jsbeautifier.org.....	317
JavaScript RegEx generator.....	318
JSONformatter.....	319
jshint.com.....	320
Mozilla Developer Network.....	321
Douglas Crockford.....	322

***Index* 325**

Introduction

JavaScript is hot! What started as a quick-and-dirty language created for one of the first web browsers has turned into the world's most popular programming language. Demand for JavaScript programmers is at an all-time high and only continues to grow.

This book is your key to becoming proficient in the core concepts of JavaScript. Whether your goal is to land a high-paying job as a programmer or to make your own personal website more interactive, you can be confident that the content and techniques presented in this book are fully up to date with the most current JavaScript standards and best practices.

Coupled with engaging and interactive online exercises, each chapter contains complete examples of real code that you can try and test in your own web browser at home.

Just as the only way to Carnegie Hall is to practice, practice, practice, the only way to become a better programmer is to code, code, code!

About This Book

This book is a friendly and approachable guide to getting started with writing JavaScript code. As programming languages go, JavaScript is fairly easy to pick up and start using. Because it's so accessible, many people who started as web page authors have found themselves in the position of being responsible for maintaining, modifying, and writing JavaScript code. If that describes you, this book will quickly and easily bring you up to speed.

Whether you know a little JavaScript or you've never seen it, this book shows you how to write JavaScript the right way.

Topics covered in this book include the following:

- ✓ Understanding the basic structures of JavaScript programs
- ✓ Integrating JavaScript with HTML5 and CSS3
- ✓ Structuring your programs with functions
- ✓ Working with JavaScript Objects

- ✔ Using advanced JavaScript techniques, such as AJAX, callbacks, and closures
- ✔ Getting started with jQuery

Learning JavaScript isn't only about learning the syntax of the language. It's also about accessing the tools and community that has been built around the language. Professional JavaScript programmers have greatly refined the tools and techniques used to write JavaScript over the language's long and exciting history. Throughout the book, we mention important best practices and tools for testing, documenting, and writing better code faster!

To make this book easier to read, keep in mind the following:

- ✔ As a convention for this book, all JavaScript code and all HTML and CSS markup appears in monospaced type like this:

```
document.write("Hi!");
```

- ✔ The margins on a book page don't have the same room as your monitor likely does. Therefore, long lines of HTML, CSS, and JavaScript may break across multiple lines. Remember that your computer sees such lines as single lines of HTML, CSS, or JavaScript. We indicate that everything should be on one line by breaking it at a punctuation character or space and then indenting any overage, like so:

```
document.getElementById("anElementInTheDocument").  
    addEventListener("click",doSomething,false);
```

- ✔ HTML and CSS don't care very much about whether you use uppercase or lowercase letters or a combination of the two, but JavaScript cares a lot! In order to make sure that you get the correct results from the code examples in the book, always stick to the same capitalizations that we use.

Foolish Assumptions

We have a policy at our company, WatzThis?, to never assume (but, frankly, Eva is better at following the policy than Chris is). If you were ever 12 years old, you've probably heard the saying about what happens when you assume. If you don't know, email us.

You don't need to be a programming ninja or a hacker to understand programming. You don't need to understand how the guts of your computer work. You don't even need to know how to count in binary.



However, we do need to make a couple of assumptions about you. We assume that you can turn your computer on, that you know how to use a mouse and a keyboard, and that you have a working Internet connection and web browser. If you already know something about how to make web pages (it doesn't take much!), you have a jump start on the material.

The other things you need to know to write and run JavaScript code are details we cover in this book. And the one thing you'll find to be true is that programming requires attention to details.

Icons Used In This Book

Here's a list of the icons we use in this book to flag text and information that's especially noteworthy:



This icon highlights helpful tips that show you easy ways or shortcuts that will save you time or effort.



Whenever you see this icon, pay special attention. You won't want to forget the information you're about to read.



Be careful — very careful. This icon warns you of pitfalls to avoid.



This icon highlights the great exercises you can find on the website. If you're interested in trying your hand at JavaScript, go online and visit www.dummies.com/go/codingwithjavascript.



This icon highlights technical details that you may or may not find interesting. Feel free to skip this information, but if you're the techie type, you might enjoy reading it.

Beyond the Book

Here's where you can find the online content for this book:

- ✔ **Exercises:** You can find all the exercises online by going to www.dummies.com/go/codingwithjavascript to access the exercises at Codeacademy.
- ✔ **Examples:** You can find all the examples in the chapters at www.dummies.com/go/codingwithjavascript. Here you will find a directory labeled by chapter. Within the chapter, you will find each example labeled by its listing number
- ✔ **Cheat Sheet:** You can find lists of useful information at www.dummies.com/cheatsheet/codingwithjavascript.
- ✔ **Extras:** You can even find additional articles related to each part of the book. You can access this extra content at www.dummies.com/extras/codingwithjavascript.
- ✔ **Updates:** From time to time, we will need to make updates to a book. Code and specifications are constantly changing, so the commands and syntax that work today may not work tomorrow. You can find this information at www.dummies.com/extras/codingwithjavascript.

Where to Go from Here

Coding with JavaScript is fun, and once you get a little knowledge under your belt, the world of interactive web applications is your oyster! So buckle up! We hope you enjoy the book and our occasional pearls of wisdom.



Part I

Getting Started with JavaScript



Visit <http://www.dummies.com> for great Dummies content online.



In this part . . .

- ✔ Find out how to write your first JavaScript program.
- ✔ Get the inside scoop on how to work with variables and arrays.
- ✔ Discover how to work with operators, expressions, and statements.
- ✔ Use loops and branches in your JavaScript coding.
- ✔ Visit <http://www.dummies.com> for great Dummies content online.

Chapter 1

The World's Most Misunderstood Programming Language

In This Chapter

- ▶ Getting to know JavaScript
 - ▶ Figuring out what JavaScript does
 - ▶ Understanding why you need JavaScript
-

“People understand me so poorly that they don’t even understand my complaint about them not understanding me.”

— Søren Kierkegaard

JavaScript hasn't always been as highly regarded as it is today. Some people have called it the best and worst programming language in the world. Over the last few years, there have been a great number of improvements made to the way programmers write JavaScript and to JavaScript interpreters. These improvements have made JavaScript a much better language today than it's been in the past.

In this chapter, you discover what JavaScript is and a little bit of the history of the language. You also find out what JavaScript does and why you need to know it.



Don't forget to visit the website to check out the online exercises relevant to this chapter!



What Is JavaScript?

Back in the very early days of the web, browsers were simple readers for web pages (see Figure 1-1). They had virtually no capabilities themselves, except for the ability to display text in various sized fonts. As soon as Microsoft released its Internet Explorer browser, the browser wars were on, and the features started flying! One browser introduced the ability to display images, then another introduced the capability to have different fonts, and then blinking text, moving text, and all sorts of other wacky capabilities were introduced!

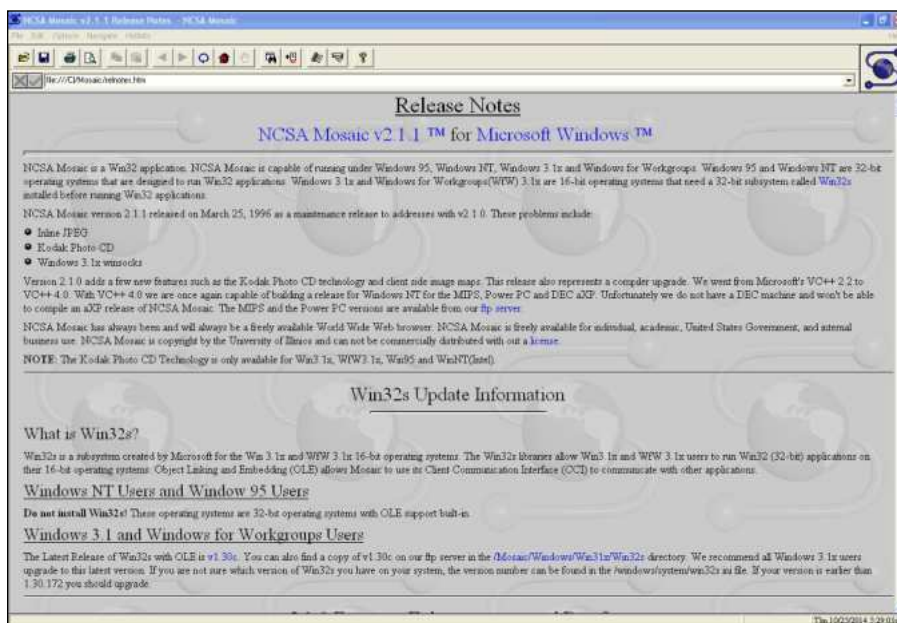


Figure 1-1:
The first
web browsers
weren't
much to
look at.

It wasn't long before someone got the idea that browsers could actually do useful things themselves, rather than just acting as fancy document display programs.

The Eich-man cometh

JavaScript got its start back in 1995 at Netscape. The creator of JavaScript, Brandon Eich, wrote JavaScript in record time (some say in as few as ten days!) by borrowing many of the best features from various other programming languages. The rush to market also created some interesting quirks (or, less politely described, mistakes) in the design of the language. The result is a sort of Esperanto-like language that looks deceptively familiar to people who are experienced with other programming languages.

Mocha-licious

The original name of JavaScript was Mocha. It was renamed LiveScript with the first beta deployment of Netscape Navigator and was then changed to JavaScript when it was built into the Netscape 2 browser in 1995. Microsoft very quickly reverse-engineered JavaScript and introduced an exact clone of it in Internet Explorer, calling it Jscript in order to get around trademark issues.

Netscape submitted JavaScript to the standards organization known as Ecma International, and it was adopted and standardized as ECMAScript in 1997.



Brandon Eich, the creator of JavaScript, famously commented about the name of the standardized language; stating that ECMAScript was an “unwanted trade name that sounds like a skin disease.”



Not only is ECMAScript an unappealing name for a programming language, the name given to the language by Netscape and which most people refer to it as, is rather unfortunate as well. If you already know how to program in Java or if you learn how to at some point, it's a very good idea to keep in mind that the two languages may have some similarities, but they are, in fact, quite different animals.

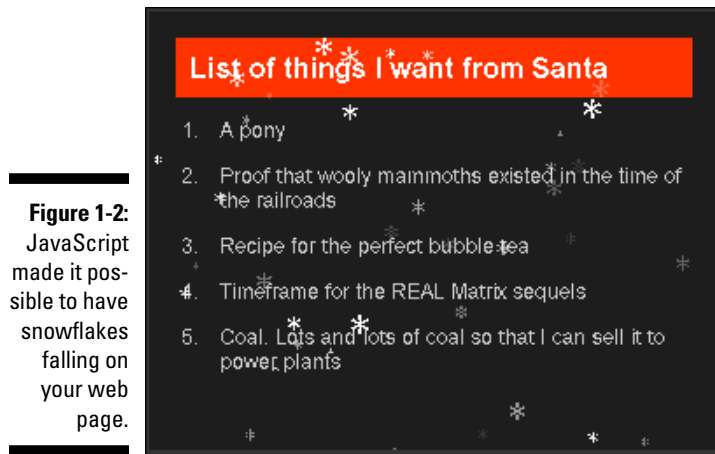
We need more effects!

When JavaScript debuted, it quickly became very popular as a way to make web pages more dynamic. So-called Dynamic HTML (DHTML) was an early result of JavaScript being built into web browsers, and it enabled all sorts of fun effects, like the falling snowflake effect (see Figure 1-2), pop-up windows, and curling web page corners, but also more useful things like drop-down menus and form validation.

JavaScript grows up

Now entering its third decade, JavaScript has become the world's most widely used programming language and virtually every personal computer in the world has at least one browser on it that can run JavaScript code.

JavaScript is flexible enough that it can be used and learned by nonprogrammers, but powerful enough that it can (and is) used by professional programmers to enable functionality on nearly every website on the Internet today, ranging from single-page sites to gigantic sites like Google, Amazon, Facebook, and many, many others!



Dynamic scripting language

JavaScript is often described as a *dynamic scripting language*. In order to understand what this means, we need to first define a couple of terms and provide some context.

Common misconceptions about JavaScript

Over the years, JavaScript has had some pretty nasty things said about it. While sometimes rumors are interesting, they aren't always true. The following list explains some common misconceptions about JavaScript:

- ✓ **Myth:** JavaScript is not a real programming language. **Reality:** JavaScript is often used for trivial tasks in web browsers, but that doesn't make it any less of a programming language. In fact, JavaScript has many advanced features that have raised the bar for programming languages and are now being imitated in languages such as PHP, C++, and even Java.
- ✓ **Myth:** JavaScript is related to Java. **Reality:** Nope. The name JavaScript was invented

purely as a marketing strategy because Java was incredibly popular at the time JavaScript came out.

- ✓ **Myth:** JavaScript is new. **Reality:** JavaScript has been around for over 20 years! Some of the professional JavaScript programmers we know weren't even born when JavaScript was created.
- ✓ **Myth:** JavaScript is buggy and runs differently in different browsers. **Reality:** While this used to be true in some cases, browser makers decided to support the standardized version of JavaScript long ago. Every browser will run JavaScript the same today.



- Lituz.com

Elektron kitoblar

**To'liq qismini Shu tugmani
bosish orqali sotib oling!**