

Instructor's Summary for *Murach's JavaScript and jQuery*

This summary is intended to introduce you to the components of our Instructor's CD and to help you get started using them. At the least, we recommend that you read the topics under "What's on the Instructor's CD," because they not only describe the components but also our underlying instructional philosophy.

But first, some thoughts about the modular structure of this book that you should be aware of. That's important because it gives you some instructional options that you don't have with other books.

About the modular structure of the book	2
Section 1: JavaScript essentials	2
Section 2: jQuery essentials.....	2
Section 3: jQuery UI essentials.....	2
Section 4: Ajax, JSON, and API essentials.....	3
Section 5: jQuery Mobile essentials	3
About the student download for this book.....	3
Book applications	3
Exercise starts	3
Exercise solutions	4
What's on the Instructor's CD	4
Book applications, exercises, and solutions.....	4
Objectives	4
Test banks	5
Extra exercises and solutions.....	5
Short exercises for quizzes or tests	5
PowerPoint slides	6
How to get started with the Instructor's CD	6
How to install the folders and files on a Windows system	6
How to install the folders and files on a Mac	6
The folders and files that get installed on your computer	7
The four folders that are subordinate to the jquery folder	7
The files that are in the jquery\instructors folder.....	7
The folders that are subordinate to the jquery\instructors folder	8
Any comments?	8



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About the modular structure of the book

After your students complete the first two sections of this book, you can continue with any of the other sections of the book. In other words, sections 3, 4, and 5 are written as independent modules that require only sections 1 and 2 as prerequisites. That's what we mean by *modularity*, and that lets you choose the subjects that you want to teach as well as the sequence in which you teach them.

Beyond that, you have some options as to which chapters you assign for each section of the book. Those options are described in the topics that follow. Once you understand your options, you should have no problem selecting the chapters and teaching sequence that's best for your course.

Section 1: JavaScript essentials

The six chapters of section 1 present the JavaScript that your students need to know for the effective use of jQuery. Note, however, that the last chapter shows how to script the DOM with JavaScript, which is easier to do with jQuery. As a result, you can just focus on the concepts of that chapter rather than asking your students to apply the skills that they learn for that chapter.

If your students already know JavaScript, you can probably skip most of this section. But you should probably assign chapter 4 on debugging and 6 on DOM scripting because your students aren't likely to have all of those skills, even if they have already taken a JavaScript course. Another alternative is to use the test banks for chapters 1-6 to pretest the JavaScript skills that your students have and assign the JavaScript chapters based on the test results.

Section 2: jQuery essentials

The five chapters of section 2 present the core jQuery concepts and skills. After chapter 7 presents a substantial subset of jQuery, the next five chapters expand upon those skills. Note, however, that you don't have to teach all of those chapters and you don't have to teach them in sequence.

If, for example, you want to teach the use of plugins right after chapter 7 and then go back to chapter 8, you can do that. Or, if you want to skip chapter 9 on DOM manipulation and traversal or chapter 10 on forms and data validation, you can do that. You should, however, teach chapters 7 (core skills), 8 (effects), and 11 (plugins) before you go on to another section.

Section 3: jQuery UI essentials

The two chapters of section 3 show how to use jQuery UI to enhance a web page. Although these chapters should be taught in sequence, remember that you can skip this section if you want to go to section 4 or 5 next. Another option is to assign chapter 12 on jQuery UI themes and widgets and skip chapter 13 on interactions and effects.

Section 4: Ajax, JSON, and API essentials

The three chapters in this section show how to use Ajax and JSON to update a web page without reloading the page. They also show how to use Ajax and JSON with the APIs for popular web sites like Google Blogger, YouTube, Twitter, Flickr, and Google Maps. Using APIs like those is a common use of Ajax and JSON, and this is powerful material for enhancing a web site.

But here again, you have some options. In particular, you can teach just the first chapter in this section (chapter 14), just the first two chapters, or all three chapters.

Section 5: jQuery Mobile essentials

The two chapters in this section show how to use jQuery to build mobile web sites. Since these chapters don't directly use jQuery methods or event methods, these chapters are relatively easy. As a result, you may want to assign one or both of them when you think your students need a relaxing interlude.

About the student download for this book

To help your students get the most from our book, our web site lets your students download the files for the book applications, the files that are required for each exercise, and *the solutions to the exercises*. Appendix A in the book shows them how to do that. Please note, however, that you don't have to download these items because they will be installed along with the other materials on the Instructor's CD.

Book applications

All of the applications in this book and some of the extended examples are included in what we refer to as the "book applications." These are all stored in a folder named `book_apps` when they're downloaded. For a summary of the full applications, please refer to appendix B in the book.

Once these applications are downloaded, the students can run them to see how they work. They can review all of the code in any application when the book doesn't present it all. And they can copy and paste code from the book applications into their HTML, CSS, and JavaScript files.

Exercise starts

To help your students master the skills that are taught in each chapter, the book provides exercises at the end of each chapter. For each exercise, the students start from folders and files that contain some of the code that the exercise requires. That way, your students get the most practice in the least time. When downloaded, these files are stored in a top-level folder named `exercises`.

If you review the exercises, you'll see that they guide the students through the process of building several pages of a web site. These exercises force the students to use all of the critical skills that are needed for web site development. In fact, if your students can successfully do all of the exercises, they will be well on their way to a professional level of competence.

Exercise solutions

To help students get over any learning obstacles when they're working on their own, the download also provides the solutions to the exercises in a top-level folder named solutions. That way, the students can check the solutions to see how something is done whenever they're wasting time on what is likely to be a trivial coding mistake. We think that providing the solutions is the right approach didactically because it helps students learn faster and better.

We realize, however, that providing the solutions means that it's more difficult for an instructor to use the book exercises to test their students. That's why the Instructor's CD includes a second set of exercises as well as short exercises that can be used for testing the competency of students. The Instructor's CD also includes solutions for those exercises.

What's on the Instructor's CD

The Instructor's CD for *Murach's JavaScript and jQuery* contains a set of instructional materials that will help any corporate trainer or college instructor run a highly effective course. Those materials include instructional objectives, test banks, PowerPoint slides, a second set of exercises that are analogous to the book exercises, and short exercises for quizzes or tests in computer lab. A summary of these materials follows.

Book applications, exercises, and solutions

These are the same materials that your students can download from our web site. But you don't have to download them because we've put them on the Instructor's CD. This makes it easy for you to demonstrate and review the book applications and exercise solutions.

Objectives

Since we believe that instructional objectives should be the start of any educational methodology, we provide a set of objectives for each chapter in the book. We prepared these objectives based on the principles presented by Robert F. Mager in his classic book, *Preparing Instructional Objectives*. As a result, our objectives describe the skills that your students or trainees should be able to do when they complete a chapter, and you should be able to test whether they can do those skills.

If you review the objectives, you'll see that the first objectives for each chapter are what we refer to as *applied objectives*. These ask the students to apply what they've learned as they develop web pages and web sites. These of course are the critical objectives of a web development course, and they are best tested by having the students or trainees do exercises like the ones that we provide.

After the applied objectives for each chapter, you'll find what we refer to as *knowledge objectives*. These objectives define skills like identifying, describing, and explaining the required concepts, terms, and procedures. These objectives determine whether your students are able to talk intelligently about the topics that are presented. And these objectives can be tested by the test banks that we provide.

To help you get the most from the instructional objectives, we have included them at the start of the PowerPoint slides for each chapter. As we see it, if you can convince your students that they only need to be able to do the skills that are described by the objectives, their study becomes more focused and efficient.

Test banks

To test comprehension, the Instructor's CD includes one test bank for each chapter in the book. We developed these test banks in ExamView, and we provide them on the CD in several formats: ExamView, Rich Text (RTF), the current Blackboard formats, and Respondus.

Each test bank provides questions that are designed to test the skills that are described by the objectives for that chapter, and each test question is designed to test the skill described by one objective. This keeps the promise to the students that they will only be expected to do the skills that are described by the objectives.

In our test banks, we use only completion and multiple-choice test questions because they have the highest validity. To us, that means that the students or trainees who get the best scores are also the ones with the best knowledge and skills. In contrast, matching and true/false questions have low validity, so we don't use them.

Extra exercises and solutions

Because we provide the solutions for the book exercises in the download for this book, the Instructor's CD includes a second set of exercises. These exercises are provided in a Word document so you can modify them if you want to, as well as a PDF document that you can distribute to your students if you don't want to make any modifications. The starting folders and files are also on the Instructor's CD so you can distribute them to your students. And the folders and files for the solutions are provided on the CD so you can demonstrate and review them in class.

Since both the book exercises and the extra exercises force the students to use all of the critical skills for web development, you can assign either set of exercises to your students. The only significant differences are (1) the students will have the solutions for the book exercises, and (2) the extra exercises provide less guidance than the book exercises (which you may prefer). Of course, the advantages of using the book exercises are (1) they are included in the book, and (2) the folders and files for the exercises are part of the download. As a result, you don't have to distribute anything.

Another use of the extra exercises is to show the use of jQuery in applications that go beyond what's shown in the book. For instance, extra exercise 9-2 shows how to use the DOM manipulation methods to pull and display quotations from an article, and extra exercise 9-3 shows how use the tree traversal methods to navigate with links in a new way. So, even if you don't assign any of the extra exercises, you might want to demonstrate some of them and present their code in class.

Short exercises for quizzes or tests

No matter which set of exercises you assign, be sure to review the short exercises that are provided on the Instructor's CD. Each of these exercises is designed to test just one or two web development skills, and each is designed so it can be done in from 5 to 45 minutes. These exercises are presented in both Word and PDF documents, and their screenshots are presented at the end of the PowerPoint slides for each chapter.

One way to use these exercises is to provide quick reinforcement for something that you've just presented. For instance, short exercise 7-1 asks the students to redo one of the JavaScript exercises of section 1 with jQuery. But you can also use these exercises as quizzes or tests. For instance, short exercise 8-2 asks the students to debug a slide show application. If they understand the concepts, they should be able to do that in 5 or 10 minutes. If they don't, this will help them realize what they need to know. Call it

reinforcement, call it classroom stimulation, call it a quiz, or call it a test: We think the short exercises will help make any class more effective.

PowerPoint slides

The PowerPoint slides on the CD present all of the critical information that's presented in the figures of the book. That includes all of the screen shots, diagrams, tables, and code that you may want to review in class. As a result, these slides make it easy for you to review any of the skills that your students have difficulty with.

Beyond the book information, the slides for each chapter start with the instructional objectives, so you can review them in class. The slides for each chapter also end with the screen shots for the book exercises, the extra exercises, and the short exercises. That makes it easy for you to answer questions and provide additional information about these exercises.

If you want to modify any of the PowerPoint slides, you should know that we prepared them by abridging and editing the Word text for each figure and copying it into PowerPoint slides. As a result, you can't use PowerPoint to modify the text in the normal way. Instead, you need to double-click on the text for a slide to open it in Word, make modifications to the text in Word, and click outside the text to return to PowerPoint. You can also use PowerPoint in the normal way to add slides, delete slides, or add your own presentation notes to our slides.

How to get started with the Instructor's CD

To take a quick look at our instructional materials, you can open the files that are on the CD. But if you think you might want to adopt the book, you'll want to install the CD folders and files on your PC or Mac. That way, you can do a thorough review of all of the materials that the CD provides.

In particular, you'll want to run the book applications along with the solutions for the book exercises, and maybe the solutions for the extra exercises and short exercises too. That will show you the level of competence that our book develops. You'll also want to click through the PowerPoint slides to see how they can help you review and reinforce the information that's presented in the book.

How to install the folders and files on a Windows system

From the root folder of the Instructor's CD, double-click on the file named `Install.exe` and respond to the dialog boxes that follow. This will install the folders and files of the Instructor's CD onto your C drive in a folder structure that starts with

```
c:\murach\jquery
```

How to install the folders and files on a Mac

From the root folder of the Instructor's CD, drag the file named `MacInstall.zip` to wherever you want to store it on your Mac. Then, double-click on the file and it will unzip the files and folders into a folder structure that starts with

```
jquery
```

The folders and files that get installed on your computer

The tables that follow present the folders and files that get installed from the Instructor's CD. The first table presents the four top-level folders. Of these, the first three can also be downloaded from our web site and installed on the students' systems.

The four folders that are subordinate to the jquery folder

Folder name	Contents
book_apps	One folder for each chapter that contains the folders and files for the application or applications that the chapter presents.
exercises	One folder for each chapter that contains the folders and files that are needed for starting each exercise for that chapter.
solutions	One folder for each chapter that contains the folders and files that provide the solutions for the chapter exercises. The folder structure for the solutions is the same as it is for the exercises.
instructors	The top-level folder for the instructor's materials.

The second table presents the files that can only be installed from the Instructor's CD. These are the files that present the objectives, extra exercises, and short exercises. Some of these files are presented in both Word and PDF formats. Then, if you want to modify them, you can use the Word format. But if you want to distribute them to your students without any changes, you can use the PDF format. Note that all of these files are in the instructors subfolder of the jquery folder.

The files that are in the jquery\instructors folder

File name	Contents
Instructor's summary.pdf	This document in PDF format.
Objectives.docx Objectives.pdf	A document in both Word and PDF formats that contains the instructional objectives for all chapters. These objectives are also presented at the start of the PowerPoint slides for each chapter.
Extra exercises.docx Extra exercises.pdf	A document in both Word and PDF formats that presents a complete set of extra exercises that are similar to the book exercises.
Short exercises.docx Short exercises.pdf	A document in both Word and PDF formats that presents short exercises that take from 5 to 45 minutes each. These can be used in computer lab for concept reinforcement, quizzes, or tests.

The third table presents the folders that can only be installed from the Instructor's CD. These folders contain the materials that the students need for the extra exercises and the short exercises, as well as the solutions to the extra exercises and the short exercises. These folders also contain the slides and test banks. Here again, all of these folders are in the instructors subfolder of the jquery folder.

The folders that are subordinate to the jquery\instructors folder

Folder name	Contents
exercises_extra	One folder for each chapter that contains the subfolders and files that the students need for doing the extra exercises for that chapter. If you are going to assign these exercises, you need to distribute this folder to your students.
exercises_short	One folder for each chapter that contains the subfolders and files that the students need for doing the short exercises for that chapter. Then, you decide which of these you want to distribute to your students.
slides	One PowerPoint file for each chapter that starts with the instructional objectives and ends with the screen shots for the book exercises, extra exercises, and short exercises.
solutions_extra	One folder for each chapter that contains the subfolders and files that present the solutions to the extra exercises for that chapter.
solutions_short	One folder for each chapter that contains the subfolders and files that present the solutions to the short exercises for that chapter.
test_banks	ExamView, RTF, Blackboard, and Respondus folders that contain one test bank for each chapter in the book in their respective formats.

Any comments?

If you have any comments about our book or its instructional materials, we would be delighted to hear from you. If you discover any errors in our applications or solutions, we would appreciate hearing about them. And if you want to let us know that you're going to adopt our book for your course, that would make our day.

Just e-mail us at the addresses below. But whether or not we hear from you, we want to thank you for your interest in our JavaScript and jQuery book.

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