Instructor's Summary for *Murach's Android Programming* (2nd Edition)

This summary introduces you to the instructional materials that we've developed for this book and helps you get started using them. On page 5, you'll find a chart that summarizes these materials at a glance. But first, we recommend that you read the topics under "What's included in the instructor's materials," because they not only describe the materials but also our underlying instructional philosophy.

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What's included in the student download

To help your students get the most from this book, our retail website lets them download a file that includes (1) the book apps, (2) starting code for the chapter exercises in the book, and (3) the solutions to the book exercises. The appendixes in the book show them how to install these files on Windows, Mac OS X, and Linux.

Book apps

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The book apps are the full sample apps that are presented in the book. Once the students download these apps, they can run them to see how they work. They can review the source code for the apps. And they can copy code from the book apps to use in their own apps.

Exercise starts

To help your students master the skills that are taught in the book, each chapter ends with practice exercises. For each exercise, the students start from an Android project that contains some of the code that the exercise requires. Since the students don't have to start these exercises from scratch, they are able to practice the critical skills that are presented in the chapters without redoing trivial code. This means that they get more practice in less time.

Exercise solutions

The solutions to the exercises in the book are also included in the download. As a result, your students can get past the learning obstacles that can occur when they're working on their own, avoid getting hung up on trivial coding errors, and check their solutions against the author's solution to see what, if anything, they could have done better. We think this helps students learn faster and better.

We realize, however, that this makes it difficult for you to use the book exercises to test your students. That's why the instructor's materials include a second set of exercises as well as a set of projects that can be used for evaluation purposes, along with their solutions. We don't make these available to anyone other than instructors and trainers.

What's included in the instructor's materials

The instructor's materials for this book will help any college instructor or corporate trainer run an effective course based on the book. Besides the materials in the student download, these resources include instructional objectives, PowerPoint slides, tests, an extra set of exercises, solutions to those exercises, projects, and solutions to those projects.

The student download: Book apps, exercises, and solutions

These are the same materials that your students can download from our website. We've included them in the instructor's materials so that you can easily demonstrate and review the book apps and exercise solutions in class, without having to download them yourself.

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 should have when they complete a chapter, and you should be able to test whether they have 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 objectives ask the students to apply what they've learned as they develop apps. They are the critical objectives of a programming course, and they are best tested by having the students do exercises and projects 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 questions in our test banks.

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 learn the skills that are described by the objectives, their study becomes far more focused and efficient.

Note, however, that we also provide our objectives as a Word document so you can easily modify them to make them more appropriate for your class. For instance, you may want to delete some of our objectives or add some of your own. That's a good way to focus your students on the critical learning objectives for your particular course.

PowerPoint slides

The PowerPoint slides present abridged versions of all of the information that's presented in the figures of the book. That includes all of the diagrams, screens, tables, and code that you may want to review in class. As a result, these slides make it easy to review any of the skills that your students have difficulty with. In addition, the slides for each chapter start with the instructional objectives so you can review them in class.

If you want to modify any of the PowerPoint slides, you should know that we prepared them by copying the Word text from our figures into PowerPoint. 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 up 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 the slides.

Test banks

To test comprehension, you can use the test banks that we've created; there's one for each chapter in the book. We developed these test banks in ExamView, and we provide them in multiple formats: ExamView format, the current Blackboard formats, Respondus format, and Rich Text Format (RTF).

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 are only expected to have 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 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

In the document named *Extra exercises*, you'll find a second set of chapter exercises that aren't in the book. Since each of these exercises can be done in 15 to 45 minutes, they provide a quick way to test the progress of your students. Some of these exercises also give the students a chance to apply what they've learned in a new context.

We've provided these exercises as a Word document, as well as a PDF, so you can easily modify them if you want to customize them for your class. We've also provided the starting directories and files for these exercises so you can distribute them to your students, as well as the directories and files for the solutions so you can demonstrate and review them in class. And in contrast to the book exercises, the solutions to the extra exercises are provided *only* to instructors and trainers.

Projects and solutions

The best way to test your students' ability is to have them develop complete apps from scratch. To that end, we provide a document named *Projects*. In it, each project has the student create an app from scratch.

To make the projects as useful as possible, we've tried to provide a range of difficulty levels. Your students should be able to finish some in an hour or two. As a result, you can use these projects as tests that can be done in computer lab. That's the only sure way to see whether your students have the skills described by the applied objectives for this book. Other projects may take several days to finish. As a result, you can assign these projects as midterm or final projects.

As with the extra exercises, we provide these project descriptions in a Word document, as well as a PDF, so it's easy for you to modify them. That way, you can make them easier or harder so they're more appropriate for your class.

How to get started

You can request the instructor's materials as a download from our instructor website (<u>www.murachforinstructors.com</u>) or on an Instructor's CD. If you download the materials, you'll need to install them on your computer as described on the following page. If you get the CD, you can do a preliminary review of our materials by opening the CD files. But if you adopt the book, you'll want to install them on your computer.

The directories and files that are installed

The table that follows presents the directories and files that get installed on your computer, all in the murach\android directory.

Three of the subdirectories (book_apps, ex_starts, and ex_solutions) are the same as the directories that are installed on your students' computers when they download the source code for this book from our retail website. However, the instructors subdirectory and its subordinates are available only to instructors.

	\murach\android\	Contents
Student download	book_apps\	The source code for the apps that are presented in the book.
	ex_starts\	The starting code for the exercises presented at the end of each chapter.
	ex_solutions\	The source code for the solutions to the exercises presented at the end of each chapter.
Instructors only	instructors\Instructor's summary.pdf	This instructor's summary in PDF format.
	instructors\Objectives.docx instructors\Objectives.pdf	A document in both Word and PDF formats that contains the instructional objectives for all chapters.
	instructors\Extra exercises.docx instructors\Extra exercises.pdf	A document in both Word and PDF formats with additional exercises that are similar to those in the book. (The exercise starts and solutions are in subdirectories, as detailed below.)
	instructors\Projects.docx instructors\Projects.pdf	A document in both Word and PDF formats with descriptions of projects that are done from scratch. (The solutions are in a subdirectory, as detailed below.)
	instructors\more_ex_starts\	The starting code for the exercises in the <i>Extra exercises</i> document described above.
	instructors\more_ex_solutions\	The source code for the solutions to the exercises in the <i>Extra exercises</i> document described above.
	instructors\projects\	The source code for the solutions to the projects in the <i>Projects</i> document described above.
	instructors\slides\	One PowerPoint file for each chapter.
	instructors\test_banks\	ExamView, RTF, Blackboard, and Respondus directories that contain one test bank for each chapter in the book.

How to install on Windows

- 1. Find the .exe file that you downloaded from your account page at our instructor website *or* the file named Install.exe that's in the root of the Instructor's CD.
- 2. Double-click on the .exe file and respond to the dialog boxes that follow. This will install the directories and files onto your C drive in a directory structure that starts with:

C:\murach\android

How to install on Mac OS X

- 1. Create a directory named murach directly on your hard drive.
- 2. Find the .zip file that you downloaded from your account page at our instructor website *or* the file named Install.zip that's in the root of the Instructor's CD.
- 3. Drag the .zip file to the murach directory on your Mac.
- 4. Double-click on the .zip file, and it will unzip the directories and files into a directory structure that starts with

/murach/android

How to install on Linux

- 1. Download the .zip file for the instructor's materials from your account page at our instructor website. Or, if you have an Instructor's CD, copy the Install.zip file from the CD to the Downloads directory on your computer.
- 2. Enter the following commands to unarchive the .zip file. Note that you must include the period at the end of the first command. Note also that you need to change the name of the .zip file to Install.zip if you're using an Instructor's CD.

```
mv Downloads/murach_android_programming_2e_ig.zip .
unzip murach_android_programming_2e_ig.zip
```

This will unzip the directories and files into a directory structure that starts with

```
/home/username/murach/android/
```

Need anything else?

If you have any comments about or suggestions for our book or its instructional materials, we would be delighted to hear from you. We'll also be glad to answer any questions that you have. Thanks for reviewing our book and course materials!

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