Instructor's Summary for
Murach's SQL Server 2016 for Developers

This summary introduces you to the instructor's materials 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 instructor resources 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 our book, our website lets them download (1) SQL scripts that create the three databases that are used throughout the book, (2) SQL scripts that contain the SQL statements for the book examples, (3) the .NET projects presented in chapter 19 of the book in both C# and Visual Basic, and (4) the solutions to the exercises that are at the end of each chapter in the book.

Appendix A in the book shows how to download and install these files. However, you don't have to download these items because they're included with the instructor's materials.

The database creation scripts and book examples

Once your students have run the SQL scripts that create the databases, they can start experimenting with the SQL scripts for the book examples to see how they work. They can run them as is to get the results shown in the book. But they can also start experimenting with the code to see how various changes affect the results. What's more, they can copy and paste code from these scripts as a starting point for their own SQL script files.

If your students have Visual Studio on their systems, they can also open and run the projects for chapter 19 to see how they work. Here again, appendix A describes how they can install Visual Studio Express, a version of Visual Studio that can be downloaded for free from the Microsoft website.

Solutions to the exercises in the book

To help students get over any learning obstacles when they're working on their own, the download also provides the solutions to the chapter exercises in the book. That way, the students can check the solutions to see how something is done whenever they get stuck on an exercise. 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 materials include a second set of exercises and their solutions that can be used for testing the competency of students.

What's included in the instructor's materials

The instructor's materials for *Murach's SQL Server 2016 for Developers* will help any corporate trainer or college instructor run a highly effective course. Besides the materials in the student download, these resources include instructional objectives, test banks, PowerPoint slides, and a second set of exercises that are analogous to the book exercises.

The student download:
DB creation scripts, book examples, and exercise 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 examples 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 trainees or students should be able to do when they complete a chapter, and you should be able to test whether they can do those skills.

Beyond that, we've tried to make sure that each objective describes a skill that a professional programmer should be able to do. This gives our objectives a real-world context that you usually won't find in the objectives for other books. So, if your trainees or students can do what the objectives state when the course is over, you can be sure that they have learned the skills that they will actually need on the job.

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 SQL scripts. These of course are the critical objectives of a programming course, and they are best tested by having the trainees or students 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 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 perform the skills that are described by the objectives, their study becomes more focused and efficient.

Test banks

To test comprehension, the instructor's materials include one test bank for each chapter in the book. We developed these test banks in ExamView, and we provide them in several formats, including those that will work for Blackboard, Canvas, and Microsoft Word. (If you need a format that we don't provide, please let us know, and we'll do our best to get you what you need.)

Each test bank provides multiple-choice 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 a single objective. This keeps the promise to the students that they will only be expected to do the skills that are described by the objectives.

Besides matching our questions to the objectives, we use this guideline to check the validity of each question: *A professional in the field should be able to get the right answer.* This guideline eliminates questions that test the knowledge of trivial details that no one should be expected to remember. This guideline also forces us to focus on questions that test the concepts and skills that are required on the job.

A second set of exercises and solutions

Because we provide the solutions for the book exercises in the student download, the instructor's materials include a second set of exercises and solutions. These are analogous to the book exercises and solutions, but this time the students work with a database for an online music store called My Guitar Shop.

These exercises are provided in a Word document so you can modify them if you want, as well as a PDF document that you can distribute to your students if you don't want to make any modifications. Some additional files that your students will need for these exercises are also in the instructor's materials so you can distribute them. And the solutions are provided so you can demonstrate and review them in class.

Since both the book exercises and the My Guitar Shop exercises force the students to use all of the critical SQL Server skills, you can assign either set…or both…to your students. The only significant differences are these:

1. The students will have the solutions for the book exercises.

2. The My Guitar Shop exercises provide slightly less guidance than the book exercises.

3. The My Guitar Shop exercises require you to distribute the exercises and any starting files for the exercises (including the database creation script).

4. There aren't any My Guitar Shop exercises for chapters 19 and 20.

Because the book exercises are so easy to use, we suggest that you start by assigning them to your students. Then, you can use the My Guitar Shop exercises to reinforce or test their skills.

PowerPoint slides

The PowerPoint slides present all of the critical information that's presented in the figures of our book. That includes the diagrams, screens, tables, syntax, 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 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 (1) double-click on the text for a slide to open it up in Word, (2) make modifications to the text in Word, and (3) 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

You can get the instructor's materials for our book as a download from our website or on an Instructor's CD. If you download the materials, you'll need to install them on your computer as described below. If you get the CD, you can do a preliminary review of our materials by opening and reviewing the files on it. But if you decide to adopt the book, you'll want to install them on your computer as described below. Once the installation is done, you can do a thorough review of all of the materials that are provided.

In particular, you'll want to run the book examples and exercise solutions to see 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 directories and files

1. Find the .exe file that you downloaded from our 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\SQL Server 2016
   ```

The student directories and files that are installed

C:\Murach\SQL Server 2016\ Student download\...	Contents
Databases	The script files for creating and restoring the three databases (AP, ProductOrders, and Examples) required by the book examples and exercises.
Exercises	The solutions for the book exercises, organized by chapter.
Images	The four image files that are used by the examples in chapter 19.
Projects	The source files for the C# and Visual Basic projects presented in chapter 19.
Scripts	The script files for the SQL examples presented throughout the book.

The instructor directories and files that are installed

C:\Murach\SQL Server 2016\ Instructors\...	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.
My Guitar Shop exercises.docx My Guitar Shop exercises.pdf	A document in both Word and PDF formats that contains the descriptions for a second set of exercises (apart from the ones in the book).
Exercise starts	(1) The script file for creating the MyGuitar Shop database, (2) starting script files for some of the My Guitar Shop exercises, and (3) XML files for the My Guitar Shop exercises for chapter 18.
Exercise solutions	The solutions for the My Guitar Shop exercises, organized by chapter.
Slides	One set of PowerPoint slides for each chapter.
Test banks	One test bank per chapter, organized by format (ExamView, Blackboard/Canvas, RTF, and Respondus).

Any comments?

If you have any comments about or suggestions for *Murach's SQL Server 2016 for Developers* or any of its student or instructor's materials, we would appreciate hearing from you. We'll also be glad to answer any questions that you have. The easiest way to reach us is to send us an email. And thanks for reviewing our book and course materials.

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