Instructor's Summary for Murach's SQL Server 2019 for Developers

The instructor's materials for *Murach's SQL Server 2019 for Developers* will help any college instructor or corporate trainer run an effective course based on the book. This summary introduces you to these materials and helps you get started using them.

At the least, 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. Then, the section entitled *How to get started with our materials* provides the installation details and gives you charts that summarize the components at a glance.

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What's included in the student download

To help your students get the most from our book, our retail website (www.murach.com) 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 your students how to download and install these files on their own systems.

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 Community, 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, though, that this makes it difficult for you to use the book exercises to test or grade your students. That's why the instructor's materials include two additional sets of exercises and their solutions that can be used for testing.

What's included in the instructor's materials

The instructor's materials are designed to save you time in preparing and running an effective course based on the text so that your students gain the programming skills they'll need on the job. So besides the materials in the student download, we provide instructional objectives, test banks, PowerPoint slides, and two additional sets 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 you can easily demonstrate and review the book examples and exercise solutions in class, without having to download them yourself.

Objectives

We believe that instructional objectives should be the start of any educational methodology, so we provide a set of objectives for each chapter in the book. We prepared these 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 have when they complete a chapter, and you should be able to test whether they have those skills.

Beyond that, we've tried to make sure that each objective describes a skill that a professional programmer should have. This gives our objectives a real-world context that you usually won't find in the objectives for other books. So, if your students or trainees 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 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 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 have 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 multiple formats, including those that can be used in various LMSs (like Blackboard, D2L, and Canvas), as well as Rich Text Format (for Microsoft Word).

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 have 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.

Two additional sets of exercises and solutions

Because we provide the solutions for the book exercises in the student download, the instructor's materials include two additional sets of exercises and solutions. These are analogous to the book exercises and solutions, but this time the students work with either a database for an online music store called My Guitar Shop or a database for a college called Murach College. (We thank Jim Rhodes, a Computer Science professor at Florida State College at Jacksonville, for his contributions that provided the basis for the Murach College exercise set.)

These exercises are provided in Word documents so you can modify them if you want, as well as PDF documents that you can distribute to your students if you don't want to make any changes. 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.

All of the exercises—the book exercises, the My Guitar Shop exercises, and the Murach College exercises—force the students to use all of the critical SQL Server skills that are covered in the book. So you can assign any of them 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 and Murach College exercises provide slightly less guidance than the book exercises.
- 3. The My Guitar Shop and Murach College exercises require you to distribute the exercise specifications and any starting files that are needed (including the database creation scripts).
- 4. There aren't any My Guitar Shop or Murach College exercises for chapter 19.

Because the book exercises are so easy to use, we suggest that you start by assigning them to your students for practice. That will give them a chance to try out what they've been learning and build their confidence. Then, you can use either the My Guitar Shop or Murach College exercises...or both!...to reinforce or test their skills.

PowerPoint slides

The PowerPoint slides present all of the critical information from the figures in the 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.

How to get started with our materials

You can request the instructor's materials for our book from our instructor website (www.murachforinstructors.com) and download them from your account page there. The download is available as an executable file or as a zip file. Then, you can install the materials on your computer.

- When you double-click on the executable file, it will install the directories and files onto your C drive in a file structure that starts with
 - C:\Murach\SQL Server 2019
- When you use the zip file, you'll want to make sure you have a directory named *Murach* on your C drive and unzip into that. Again, the file structure will start with C:\Murach\SQL Server 2019.

The tables that follow show all the components and where to find them in the file structure.

Once the installation is done, you can do a thorough review of all of the materials. In particular, you'll want to run some of the book examples and exercise solutions to see the level of competence that our book develops. You'll also want to click through some of the PowerPoint slides to see how they can help you review and reinforce the information that's presented in the book. And you'll want to take a look at the objectives to see all the skills that this book covers.

The student download directories that are installed

C:\Murach\SQL Server 2019\ 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's materials that are installed

C:\Murach\SQL Server 2019\ Instructors\	Contents
Instructor's summary.pdf	This document in PDF.
Objectives.docx Objectives.pdf	The instructional objectives for all chapters, in both Word and PDF. These objectives are also at the start of the PowerPoint slides for each chapter.
My Guitar Shop exercises\	
My Guitar Shop exercises.docx My Guitar Shop exercises.pdf	A document that gives the specifications for the My Guitar Shop exercises, in both Word and PDF.
MGS Exercise starts	A directory that includes: (1) the script file for creating the My Guitar 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.
MGS Exercise solutions	A directory with the solutions for the My Guitar Shop exercises, organized by chapter.
Murach College exercises\	
Murach College exercises.docx Murach College exercises.pdf	A document that gives the specifications for the Murach College exercises, in both Word and PDF.
MC Exercise starts	A directory that includes: (1) the script file for creating the College database; (2) starting script files for some of the College exercises; and (3) XML files for the College exercises for chapter 18.
MC Exercise solutions	A directory with the solutions for the College exercises, organized by chapter.
Slides	One set of PowerPoint slides for each chapter.
Test banks	One test bank per chapter, organized by format: ExamView, RTF (Word), Blackboard (which can be imported into Canvas and D2L), Respondus, and IMS QTI (the standard test bank format).

Any comments?

If you have any comments or suggestions for us on *Murach's SQL Server 2019 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. 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 email us at the addresses below. But whether or not we hear from you, we thank you for your interest in our SQL Server 2019 book.

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