Instructor's Summary for
Murach's MySQL
(4th Edition)

The instructor's materials for *Murach's MySQL (4th Edition)* will help you run an effective course based on the book. We recommend that you begin by reading the section entitled *What's included in the instructor's materials* because it not only describes the instructor resources but also our underlying instructional philosophy. Then, the section entitled *How to get started with our materials* describes how to get the instructor's materials and gives you tables that summarize the components at a glance.

In addition to the instructor's materials described in this document, we provide a downloadable Canvas course file that you can import into the Canvas LMS. This course file includes most of the materials described in this document after they have been imported into Canvas and organized into modules. So, if you use Canvas, this file makes it easy to start a new course based on our book. Like the instructor's materials themselves, you can download the Canvas course file from our instructor's website.

What's included in the student download

To help your students get the most from our book, our website lets them download (1) a SQL script that creates the three databases that are used throughout the book, (2) SQL scripts that contain the SQL statements for the book examples, and (3) the solutions to the exercises that are at the end of each chapter in the book.

Our book includes two appendixes that show how to download these files using Windows or macOS. These files are also included with the instructor's materials, so you don't have to download them separately.

The script that creates the databases

Before your students begin working with this book, they should run the script that creates the following databases:

Database	Description
AP	An Accounts Payable (AP) database that's used for most of the examples.
OM	An Order Management (OM) database that's used by a few examples.
EX	A database that contains many tables that are used by some examples.

The scripts for the 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, and they can 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.

Solutions to the exercises in the book

To help students get over any learning obstacles when they're working on their own, the student download also provides the solutions to the exercises that are at the end of each chapter. That way, your 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 because it makes these exercises optimal for self-study and helps students learn faster and better.

However, we realize that you may not always want your students to have solutions to exercises you give them. That's why the instructor's materials include an additional set of exercises. You can assign these exercises to challenge and test your students. We only provide solutions to these exercises in the instructor's materials. As a result, they are not available to your students unless you decide to make them available.

What's in the instructor's materials

The instructor's materials for our book are designed to save you time in preparing and running an effective course based on the text. So besides the materials in the student download, we provide you with instructional objectives, test banks, PowerPoint slides, a set of chapter exercises that aren't in the book, and solutions to those exercises.

The student download

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 separately.

Objectives

We believe that instructional objectives should be the start of any educational methodology, so we provide objectives for each chapter in the book. We developed these based on the principles presented in Robert F. Mager's 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.

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. So, if your 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 for one of the chapters, you'll see that they begin with *applied objectives* that ask the students to apply what they've learned. These are the critical objectives of a programming course, and they are best tested by having the students do exercises like the ones that we provide.

After the applied objectives, you'll find *knowledge objectives* that define skills like identifying, describing, and explaining concepts, terms, and procedures. These objectives determine whether your students are able to talk intelligently about the topics that are presented, and they are best tested by the questions in our test banks.

Test banks

To provide a way for you to test comprehension, we have created one test bank for each chapter. We provide these test banks in multiple formats, and they can be imported into in most learning management systems including Canvas, Blackboard, and D2L.

Each test bank provides questions that are designed to test the skills 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 have the skills that are described by the objectives.

In our test banks, we use only multiple-choice test questions because they are the easiest to score and 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. By contrast, matching and true/false questions have low validity, so we don't use them.

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 exercises 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. The starting scripts are also in the instructor's materials so you can distribute them to your students. 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 require the students to use all of the critical MySQL skills, 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 My Guitar Shop exercises require you to distribute the exercise specifications and any starting files.

Because the book exercises are so easy to use, we suggest that you assign them first, to give your students some hands-on practice in what they've just learned. Then, you can use the My Guitar Shop exercises for testing.

PowerPoint slides

The PowerPoint slides present all of the critical information from the figures of the book. That includes all of the screenshots, 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.

How to get started with our materials

Once you have an instructor account at www.murachforinstructors.com, you can request the instructor's materials for this book and download its zip file from your account page. Then, you can unzip the materials and store them on your computer as described below.

Once you've unzipped the instructor's materials, you can review them. In particular, we recommend running some of the book scripts, as well as some of the solutions for the exercises to see the level of competence that our book develops. We also recommend clicking through some of the PowerPoint slides to see how they can help you review and reinforce the information that's presented in the book. To help you find what you're looking for, the entire file structure for the instructor's materials is shown on the next page.

How to use the zip file

1. Download the zip file for the instructor's materials from your Murach instructor's account page.

2. Double-click on the zip file to unzip it. This creates the mysql directory and its subdirectories.

3. Create a directory named murach.

4. Move the mysql directory into the murach directory so all the files are in a directory that starts with:

   `/murach/mysql`

The student download files

murach\mysql\student_download\	Contents
db_setup\	A SQL script for creating the three databases used by the book.
book_scripts\	The SQL scripts for the examples presented in the book.
ex_solutions\	The solutions to the exercises that are at the end of each chapter.
diagrams\	The MySQL Workbench files for the diagrams presented in chapter 10.

The instructor's files

murach\mysql\instructors\	Contents
Instructor's summary.pdf	A PDF file for this instructor's summary.
Objectives.docx Objectives.pdf	Word and PDF files for the instructional objectives for all chapters.
My Guitar Shop exercises.docx My Guitar Shop exercises.pdf	Word and PDF files for additional exercises that are similar to those in the book.
mgs_ex_starts\	A SQL script for creating the My Guitar Shop database, along with a few starting script files for some of the exercises.
mgs_ex_solutions\	The solutions to the My Guitar Shop exercises.
slides\	PowerPoint slides for each chapter.
test_banks\	One test bank of multiple-choice questions for each chapter, in various formats.

About the modularity of the book

Murach's MySQL (4th Edition) presents more concepts and skills than you can cover in a single course. That's why this book has a modular design. You don't have to teach the chapters in sequence, and you can choose which ones to cover in your course. With that in mind, we offer these thoughts on how you can use this book:

- When your students complete section 1, they will have a solid foundation for learning additional MySQL skills.

- In section 2, you can teach the chapters in any sequence you prefer.

- After you complete section 1 plus chapters 8 and 9, you can continue to section 3 or skip to section 4 or 5.

- In section 3, you should teach the chapters in sequence.

- In section 4, you should teach chapters 13 and 14 before chapters 15 or 16.

- In section 5, you should teach chapter 17 before chapters 18, 19, or 20.

So, if your students are completely new to programming, you can focus on sections 1 and 2, teaching them at a pace that won't leave anyone behind. But if they're able to move more quickly through those sections, you have a number of options as to what to cover next, depending on your own interests and those of your students.

Beyond that, instructors often tell us that their students keep our books for reference on the job later on. So don't worry if you don't have the time to teach all the chapters.

Any comments?

If you have any comments about or suggestions for *Murach's MySQL (4th Edition)* or any of its 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. Thanks for reviewing our book and its instructor's materials!

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