

# INTRODUCTION

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Structured Query Language (SQL) is the standard language used with relational database management systems. Some common relational DBMSs that use SQL include DB2, Microsoft SQL Server, MySQL, and Oracle.

SQL can be used to perform tasks such as updating data in a database or retrieving data from a database. Although database systems use SQL, most of them also have their own additional proprietary extensions that are usually used only on their system. This book focuses on SQL for DB2. However, the standard SQL commands can be used across all SQL implementations to accomplish everything that needs to be done with a database.

This book provides that understanding to students and practicing developers. Once you master the topics covered in *Database Design and SQL for DB2*, you will be able to design and create *professional-level* databases for real applications. A professional developer requires skills in several areas, including modeling the system, designing the system implementation, and implementing the system's database and software. In other words, you need to understand a system from the user's point of view, design a suitable system conceptually, and then implement it. You cannot neglect any of these areas and expect much success. That is why this book gives developers extensive advice on database *design* as well as *programming*.

## INTENDED AUDIENCE

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This book is intended for readers with no previous database design or SQL experience as well as for professionals with background in the computing field. It has been specially designed for use in two- and four-year college and university courses on database design and SQL. It also works well for developers and can serve in place of IBM's database-related manuals. All the essential SQL and related DB2 topics are covered from an introductory to an advanced level.

## COMPANION WEBSITE

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The companion website for this book is [www.jcooperbooks.com](http://www.jcooperbooks.com). At this site, you will find many things that enhance the material in the book, including additional end-of-chapter exercises, assignments, and case studies. The companion website is updated continuously, so please check back often to see what is new.

## **INSTRUCTORS**

On the companion website, instructors will find end-of-chapter material for each chapter in the book. In addition, you will find Microsoft® PowerPoint® slides, assignments, projects, tests, and other material that can be used to enhance your course. Some material will require a user ID and password to access the content.

## **STUDENTS**

On the companion website, students will find the data files used in the book. In addition, the site provides links to important websites and numerous examples of RPG web applications.

## **CONTRIBUTORS**

Everyone has an opportunity to contribute to the companion website. If you wish to contribute presentation slides, tests, assignments, RPG web applications, or other material that would enhance the teaching and learning experience, locate the contributor section on the companion website and follow the instructions.

This book will be updated regularly so students and professionals are offered the most modern and up-to-date material on database design and SQL. Your comments and suggestions are welcome. Jim Cooper can be reached via e-mail at *Jim.Cooper@LambtonCollege.ca*.