

Praise for
DB2 10.1/10.5 for Linux, UNIX, and Windows
Database Administration: Certification Study Guide

This book is far more than a typical certification and study guide. The authors go out of their way to ensure the various topics tested in the certification exam are not simply covered, but rather well understood by the reader. That is to say this book serves as an excellent guide to understanding DB2's various features and functionalities, and more importantly, under what circumstances they should be used.

Hamdi Roumani
DB2 Developer
IBM Toronto Software Lab

Mohan and Kent's updates have taken what was already a great book to a new level. In the book, you'll find all you need to know about most new features in V10.1/10.5. There is also additional information on V9.x functionality that will help new and experienced DBAs alike. I particularly enjoyed the sample questions, which are cleverly designed to make the reader think and have detailed explanations behind the correct and incorrect answers.

Colin A. Chapman
DB2 DBA Lead
IBM UK

This book is a terrific piece of work. I've worked with many DBAs over the years, and Mohan/Kent are the best—here, they have distilled years of DBA experience into a comprehensive tome that goes beyond passing certification exams. Whether you are a new DBA, an experienced DBA looking at DB2, or an experienced DBA needing to deepen or extend your skills, this book is for you.

Simon Woodcock
Data Warehouse Consultant
IBM Information Management

This book isn't just a valuable study guide, but also an excellent reference that you will likely refer to frequently. The command examples are very helpful, and the study flash cards are brilliant. You will not only find sample certification questions, but also answers to the questions with explanations. Mohan won the worldwide DB2's GOT TALENT contest in 2013, and Kent has appeared as a guest on The DB2Night Show™ talking about his early and successful experiences with IBM BLU and pureScale. It is absolutely refreshing to have such a helpful book authored by real people with abundant hands-on experience.

*Scott Hayes
President and Founder, DBI Software
IBM DB2 GOLD Consultant and IBM Champion
Creator and Host of The DB2Night Show*

Takes you from the basics all the way to the advanced concepts used to optimize real-world production systems. This guide will be useful to everyone from neophytes who are setting up their first system to longtime DB2 DBAs who are catching up on the latest and greatest tools and tricks. And the self-guided exams in each chapter make sure you've gotten it right before you touch production.

*Andrew Buckler
IBM, Information Management Cloud Go-To-Market*

I have had the extremely good fortune to work with Mohan over the past several years and have come to rely on his DB2 knowledge and expertise to design, implement, as well as keep many of our highly available, business critical systems operating at optimal performance. As you are no doubt aware, the range of material covered on certification exams is quite broad. This resource is designed to give the DB2 professional the information required in order to successfully obtain certification, or even to simply enhance their existing scope of DB2 knowledge.

Mohan and Kent have done an excellent job of distilling their many years of experience, both within the lab environment and within the live production environment of a large global consumer goods company, into a logical, well-organized reference. Each section contains the fundamentals, plus valuable insights from the authors, and is backed up with sample exam questions, as well as detailed answers, which I found very useful in reinforcing the material. I am confident that with this guide, your certification will not be far away!

Enjoy and best of luck on your certification!

*Eric Sheley
Global IT Director
FTSE 100 Global Consumer Goods Company*

About the Authors

Mohankumar (Mohan) Saraswatipura works as a database solutions architect at Kronsys, Inc., focusing on IBM DB2, Linux, UNIX, and Windows solutions. Prior to his current position, he worked as a database solutions architect at Reckitt Benckiser Group, plc (UK), focusing on IBM Smart Analytics System 5600, Siebel, SQL Server, and SAP HANA solutions. Mohan is an IBM Champion (2010-2015) and a DB2's Got Talent 2013 winner. He has written dozens of technical papers for IBM developerWorks and *IBM Data Magazine*. He is an IBM Certified DB2 Advanced Database Administrator, DB2 Application Developer, and DB2 Problem Determination Master. Mohan holds a Master's of Technology (M Tech) degree in computer science and an Executive MBA (IT). He lives in the Washington, D.C., area with his wife, Dr. Nirmala; they have one child.

Robert (Kent) Collins, founder of Shiloh Consulting, Inc., is currently a Database Solutions Architect with BNSF Railway. He is an IBM Champion (2010–2015) and a frequent speaker at the DB2Night Show and IDUG and IOD (IBM Insight) conferences. Kent has worked continually with DB2 from its introduction to the market in 1984, amassing a wealth of knowledge and experience. He graduated from the University of Texas at Dallas with majors in mathematics and computer science. He is an IBM Certified Solutions Expert and also holds certifications in DB2, AIX, Linux, .NET, Oracle, SQL Server, Windows, and z/OS. Kent is proficient in many programming languages and, as a Java Architect, specializes in Enterprise HA/Performance systems. He lives in Dallas with his wife, Vicki; together, they have three children and one grandchild.

Acknowledgments

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- Andrew Bucker (IBM, IM Cloud Go-To-Market), for reviewing the entire book and writing a testimonial.
- Eric Sheley (Global IT Director, FTSE 100 Global Consumer Goods Company), for reviewing the book from the customer standpoint and writing a testimonial.

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Finally, thanks to our MC Press Online editorial and production team, especially Cindy Bushong, Anne Grubb, and Katie Tipton, for their diligent work during the editing process.

Book Reviewers:

Hamdi Roumani

Hamdi has been a software developer within the DB2 data recovery services new development team for over five years. As such, he has been directly involved with many of the new functional

pieces and improvements introduced through the DB2 V10.1 and V10.5 releases, which are covered in this book. His passions include best practices in software development and designing features that are easily consumable by end users.

Colin A. Chapman

Colin has worked for over 30 years as an IT professional in a broad range of technical roles. His experience covers mainframe operations, application design and development, systems programming, and database design and administration.

More recently, Colin has specialized in DB2 on the Linux, UNIX, and Windows platforms. He has a broad range of in-depth DB2 skills, particularly in areas such as large partitioned databases, clustering and high availability, cross-platform replication, performance, recovery, security, and complex problem diagnostics.

Simon Woodcock

Simon Woodcock has 30 years' experience working in IBM, bringing his systems design skills to bear for many clients in the UK and across Europe. More than half this time has been spent on databases, mainly on large data warehouses, starting with DB2 and extending through Netezza and most recently, Hadoop big data systems.

Foreword

I remember the days when folks would ask me why I work on database software—to some, a relatively boring, commodity product area. In today’s era of computing, where greater business value is delivered through big data and analytics, that question has been well answered.

Polyglot. That’s the best word I can think of to characterize the approach needed to be successful in today’s analytics-driven data environments. These environments are made up of various data persistence technologies, such as NoSQL, Hadoop, and RDBMS, among others. To the pundits who decree “one size fits all,” there’s been a strong wake-up call. The point? The RDBMS isn’t dead, and investing in credentialed skills in this area will not only prove to be a wise investment of your time, but will deliver economies of scale and downstream benefits into other projects—the ones you might be working on now ... and the ones you don’t know about, yet.

This book was thoughtfully designed not only to prepare you for a credentialed DB2 career but to give you a strong basis in the knowledge domain around database management, no matter what the vendor. Think about it: Regardless of the database, implementation of business rules, mapping logical to physical design, high availability, security, and other topics detailed in this book are ubiquitous across data landscapes. To me, although a key instrument to the end goal of DB2 10.5 certification, this book is so much more. I enjoyed reading the book, and I realized there is always more to learn about database technology and DB2. Today, I feel fully prepared to write the latest DB2 certification test, but even better prepared to have a positive influence on the data environments I participate in.

I’ve personally written 15 books on DB2, including those aimed at certification. It is with gratitude that I see this book as betterment over what I could ever deliver in this space. This book was written by two of the more “brainiac” database practitioners I’ve ever come across—folks who get more enjoyment out of finding even higher performance levels on a late Friday night than catching an episode of *Homeland*. I’ve watched these individuals at work, and the breadth of knowledge is beyond impressive.

Finally, as DB2 practitioners watching the world of IT evolve, we are faced with a shift, lift, rift, or cliff. Those who embrace the concepts in this book set themselves up for a foundation that is ignited by a shift and lift, ability to bring together the rift, and avoid the cliff. As I mentioned earlier, RDBMS technologies are not going away—if anything, they are permeating. What is the hottest thing in NoSQL? SQL! When you compose a query over Hadoop using IBM’s BigSQL, that SQL API is

near fully DB2-compliant (DB2 SQL is in this book). When you leverage IBM's data warehouse as a service (DWaaS) platform dashDB, it's BLU Acceleration technology that's part of that solution (technology that first debuted in DB2 and is covered in Chapter 10). If you are composing applications on IBM Bluemix and storing data in the SQLDB database as a service (DBaaS), you will be right at home with the DB2 skills you learn in this book. There's more . . . but for now, just remember that as your data demands stretch you from ground to cloud, NoSQL to SQL, and all parts in between, the skills you learn here will be invaluable.

Best of luck on your journey.

Paul Zikopoulos
Vice President, Customer Success – IBM Analytics
Big Data, Competitive, and Technical Sales