

# Introduction

**A** few months after the **IBM DB2 10.5 DBA for LUW Upgrade from DB2 10.1** certification exam (Exam 311) was announced (2014), I was contacted by Berni Schiefer and asked if I could develop and present training material on DB2 10.1 and 10.5 to a customer who was interested in moving their entire infrastructure to DB2 10.5 for Linux, UNIX, and Windows. My answer was “yes,” and I spent the next three weeks developing training material to cover the 311 certification exam. (I already had training material for DB2 10.1, which is why Berni contacted me to begin with.) And, I used the same technique to develop material for that course that I have used to develop all of my DB2 certification exam preparation courses and study guides—I carefully reviewed notes I had taken during the exam development process, as well as the questions I wrote for that test, and I made sure I covered, in detail, all the objectives that had been defined for that certification exam.

After presenting that material to the customer, I modified it to improve some of the areas I saw class participants struggling to understand, and then I used the updated material to teach a “*DB2 10.5 for Linux, UNIX, and Windows Database Administration Certification Upgrade Exam Preparation*” educational seminar at the 2015 International DB2 User’s Group (IDUG) North American Conference. Shortly afterwards, I began to receive emails from individuals seeking a copy of my training material. However, because that material is copyrighted (and is in fact, registered with

the U.S. Copyright Office), I don't distribute it freely. Consequently, I was unable to honor their requests.

In January 2016, I was invited to teach my DB2 10.5 DBA certification preparation course at the IDUG conference again. And because I was already working on a new book at the time (the *DB2 10.5 Fundamentals for LUW: Certification Study Guide*), I contacted my publisher and suggested that we make my training material for the 311 exam available, much like we had done before with my training material for the DB2 9.7 DBA certification exam. He agreed, and the result is this book.

If you've bought this book (or if you are thinking about buying this book), chances are you've already decided that you want to acquire the DB2 10.5 for Linux, UNIX, and Windows Database Administrator Certification that's available from IBM. As an individual who has helped develop 23 IBM DB2 certification exams, let me assure you that the exams you must pass in order to become a certified DB2 professional are not easy. IBM prides itself on designing comprehensive certification exams that are relevant to the work environment to which an individual holding a particular certification will be exposed. As a result, all of IBM's certification exams are designed with the following items in mind:

- What are the critical tasks that must be performed by an individual who holds a particular professional certification?
- What skills must an individual possess in order to perform each critical task identified?
- How frequently will an individual perform each critical task identified?

You will find that in order to pass a DB2 certification exam, you must possess a solid understanding of DB2; for some of the more advanced certifications (such as the Advanced DBA exam), you must understand many of DB2's nuances as well.

Now for the good news. You are holding in your hands the *only* material that has been developed specifically to help you prepare for the **DB2 10.5 DBA for LUW Upgrade from DB2 10.1** certification exam (Exam 311). When IBM began work on the 311 exam, I was invited to participate in the exam development process. In addition to helping define the exam objectives, I authored several exam questions, and I provided feedback on many more before the final exams went into production. Consequently, I have seen every exam question you are likely to encounter, and I know every concept you will be tested on when you take the 311 exam. Using this knowledge, I developed these study notes, which cover every concept you must know in order to pass the **DB2 10.5 DBA for LUW Upgrade from DB2 10.1** exam (Exam 311). In addition, you will find, at the end of the book, sample questions that are worded just like the questions on the actual exam. In short, if you see it in this book, count on seeing it on the exam; if you don't see it in this book, it won't be on the exam.

## **About the IBM Certified Database Administrator—DB2 10.5 DBA for LUW Upgrade from DB2 10.1 Certification**

The **IBM Certified Database Administrator—DB2 10.5 DBA for LUW Upgrade from DB2 10.1** certification is designed for experienced DB2 for LUW users who already possess **IBM Certified Database Administrator—DB2 10.1 DBA for Linux, UNIX, and Windows** certification, are knowledgeable about the new features and functions that were introduced with DB2 Version 10.5, and are capable of performing the tasks required to administer DB2 10.5 for LUW instances and databases.

Candidates who obtained **IBM Certified Database Administrator—DB2 10.1 for Linux, UNIX, and Windows** certification by taking (and passing) either the *DB2 9 Family Fundamentals exam* (Exam 730), the *DB2 10.1 Fundamentals exam* (Exam 610), or the *DB2 10.5 Fundamentals for LUW exam* (Exam

615) *and* the *DB2 10.1 DBA for Linux, UNIX, and Windows* exam (Exam 611) can acquire **IBM Certified Database Administrator—DB2 10.5 DBA for LUW Upgrade from DB2 10.1** certification by taking (and passing) the *DB2 10.5 DBA for LUW Upgrade from DB2 10.1* exam (Exam 311). Figure 1 displays the road map for acquiring **IBM Certified Database Administrator—DB2 10.5 DBA for LUW Upgrade from DB2 10.1** certification.

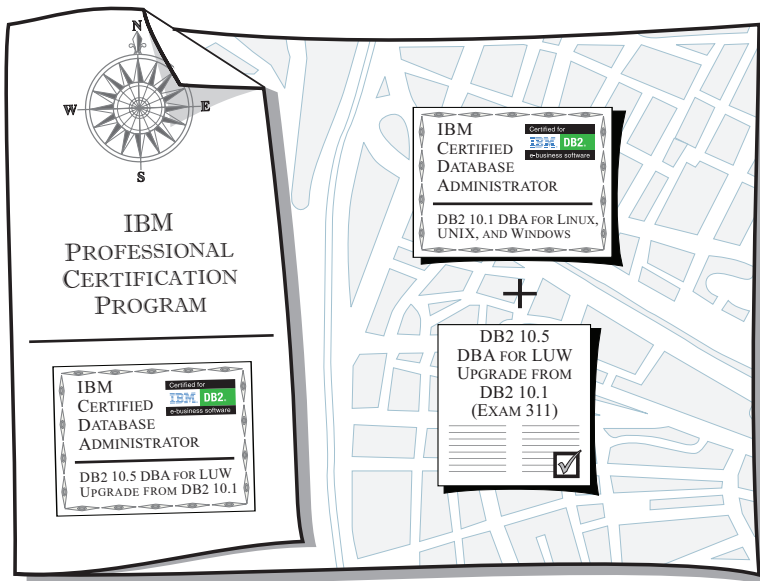


Figure 1: IBM Certified Database Administrator—DB2 10.5 DBA for LUW Upgrade from DB2 10.1 certification road map

## Conventions Used

Many examples of DB2 administrative commands and SQL statements can be found throughout this book. The following conventions are used whenever a DB2 command or SQL statement is presented:

- [ ] Parameters or items shown inside of brackets are required and must be provided.
- < > Parameters or items shown inside of angle brackets are optional and do not have to be provided.
- | Vertical bars are used to indicate that one (and only one) item in the list of items presented can be specified
- ,... A comma followed by three periods (ellipsis) indicate that multiple instances of the preceding parameter or item can be included in the DB2 command or SQL statement

The following example illustrates each of these conventions:

### **Example**

```
UPDATE [DATABASE | DB]
[CONFIGURATION | CONFIG | CFG]
FOR [DatabaseAlias]
USING [[Keyword] [Value] ,... ]
<IMMEDIATE | DEFERRED>
```

In this example, DATABASE or DB is required, as is CONFIGURATION, CONFIG, or CFG, a *DatabaseAlias* value, and a *Keyword-Value* pair, as indicated by the brackets ([ ]). In the case of DATABASE or DB, only one option can be specified, as indicated by the vertical bar (|). The same is true for CONFIGURATION, CONFIG, or CFG. More than one *Keyword-Value* pair can be provided, as indicated by the comma-ellipsis (,...) characters that follow the *Value* parameter. IMMEDIATE and DEFERRED are optional, as indicated by the angle brackets (<>), and either one or the other can be specified, but not both, as indicated by the vertical bar (|).

SQL is not a case-sensitive language, but for clarity, the examples provided are shown in mixed case—command syntax is presented

in upper case while user-supplied elements such as table names and column names are presented in lower case. However, the examples shown can be entered in any case.



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**Note:** Although basic syntax is presented for most of the SQL statements covered in this book, the actual syntax supported can be much more complex. To view the complete syntax for a specific DB2 command or SQL statement or to obtain more information about a particular command or statement, refer to the *IBM DB2 10.5 Knowledge Center*.

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