

Chapter 1: Introduction

UDB Tools	1
DB2 Supported Programming Interfaces	2
Programming Issues	3
DB2 Application Programming Interfaces	4
Host Language and Embedded SQL	5
Embedded SQL	6
DB2 Call Level Interface	7
JDBC: Java Database Connectivity	8
JDBC Drivers	9
Embedded SQL for Java (SQLJ)	10
XML Extender	11
DB2 Programming Features	12
DB2 Stored Procedures	13
DB2 User-Defined Functions and Methods	14

Chapter 2: Coding a DB2 Application in Java

Programming Considerations for Java	1
Advantages of Java over Other Languages	2
Connection Resource Management in Java	3
Source and Output Files for Java	4
Java Class Libraries	5
Java Packages	6
Supported SQL Data Types in Java	7
Coding JDBC Applications and Applets	9
Example: JDBC Program	10-11
SQLJ Programming	12
DB2 Support for SQLJ	13

Chapter 3: JDBC API

JDBC API	1
What the JDBC 2.0 API Includes	2
What is the JDBC API?	3
What Does the JDBC API Do?	4
JDBC Driver Types	5
Connection Overview	6
Opening a Connection	7
JDBC URLs	8
JDBC URL Syntax	9
Sending SQL Statements	10
Transactions	11
Transaction Isolation Levels	12
Freeing DBMS Resources	13

Chapter 7: DB2 Application Techniques

Remote Unit of Work	1
Multisite Update	2
SQL Statements in Multisite Update Applications	3
Multisite Error Codes	4
Concurrent Transactions	5
Potential Problems with Concurrent Transactions	6
Deadlock Prevention for Concurrent Transactions	7
Generated Columns	8
Identity Columns	9
Declared Temporary Tables and Application Performance	10
Transaction Management with Savepoints	12
SQL Statements for Creating and Controlling Savepoints	13

Chapter 8: DB2 Visual EXPLAIN

DB2 Visual Explain: Purpose and Function	1
Explain Snapshot Creation	2
Explain Table - Creation	3
Explain Snapshots	4
Creating Explain Snapshots for Dynamic SQL Statements	6
Explain Snapshots: Creating for Static SQL Statements	7
Displaying and Using Access Plan Graph	8
Reading the Symbols in an Access Plan Graph	9
Zoom Slider to Magnify Part of a Graph	10
Getting More Details about the Objects in a Graph	11
Getting Statistics	12
Improving an Access plan	14
Getting Information About Configuration Parameters and Bind Options	13
Running a Query with No Indexes and No Statistics	15
Collecting Current Statistics for the Tables and Indexes using RUNSTATS	16
Creating Indexes on Columns used to Join Tables in a Query	17
Creating Additional Indexes on Table Columns	18

Chapter 4: JDBC Programming

DriverManager Overview	1
Available Drivers: Keeping Track	2
Statement	3
Executing Statements Using Statement Objects	4
Statement Completion	5
SQL Escape Syntax in Statements	6
Sending Batch Updates	7-8
ResultSet	9
Retrieving Multiple Rows and Update a Single Row	10
Rows and Columns	12
Cursors	13
Cursor Movement Examples	14
Determining the Number of Rows in a Result Set	15
Retrieving Column Values	16
Which getXXX Method to Use	17

Chapter 5: JDBC Programming: Advanced

Types of Result Sets	1
Concurrency Types	2
Providing Performance Hints	3
Row Direction Performance Hint	4
Result Sets: Creating Different Types	5
Prepared Statement: Create Result Sets	6
Prepare Statement Example	7
updateXXX Methods	9
Deleting a Row	11
Inserting Rows	12
Queries that Produce Updatable Result Sets	13
NULL Result Values	14

Chapter 6: Prepared and Stored Procedures

PreparedStatement	1
PreparedStatement Objects - Creation	2
Dynamic SQL	3
Passing IN Parameters	5
setObject	6
Very Large IN Parameters - Sending	7
PreparedStatement Objects in Batch Updates	8
Stored Procedure Example	9
CallableStatement - Creation	11
CallableStatement Object	12
Batch Updates	13
OUT Parameters	14
INOUT Parameters	15