

# Contents

About the Authors .....	v
Introduction <i>by Surekha Parekh</i> .....	xiii

## **DB2 for z/OS and Cloud Computing**

<i>by Surekha Parekh and Maryela Wehrauch</i> .....	1
Highlights .....	1
Introduction	
What Is Cloud Computing, and What Is Driving This Market Trend? .....	1
IBM Cloud Computing Is Designed for Business .....	2
What Is Data as a Service, and What Are the Drivers? .....	2
DB2 for z/OS .....	2
Cloud Configurations .....	4
DB2 for z/OS Cloud Provisioning .....	4
Cloud Infrastructure in IBM z Systems .....	4
IBM z/OS Management Facility .....	5
DB2 and z/OS Management Facility .....	6
Additional Benefits and Features .....	6
Why IBM? .....	7
For More Information .....	7
Notes .....	7

## **Could Your Analytics Strategy Cost Your Business \$100M? Learn How New Technologies Can Help Protect Your Analytics, Data, and Your Bottom Line**

<i>by Shantan Kethireddy</i> .....	9
Introduction: Your Data Is Not Safe .....	9
The Data Origination Challenge .....	10
System Costs .....	11
System Cost Solutions .....	13
Data Security .....	15
Example Healthcare Company Analysis .....	16
Data Security Solutions .....	17
System Performance .....	18

System Performance Solutions .....	19
Data Archiving .....	19
Data Archiving Solutions .....	20
Performance, Security, and Savings .....	21
How IBM Can Help Your Bottom Line .....	21
For More Information .....	22
Notes .....	23

**Predictive Analytics Using IBM SPSS Modeler in DB2 for z/OS**

<i>by Jane Man, Lei Tian, and Liang Wang</i> .....	25
Introduction .....	25
Why DB2 for z/OS Customers May Want to Use SPSS and the Business Value .....	25
Setup and Configuration .....	26
Building a Simple Model Using Data Stored in DB2 for z/OS .....	27
Step 1: Configure the ODBC DSN. ....	27
Step 2: Build a simple model using data from DB2 for z/OS. ....	30
Scoring Inside DB2 for z/OS via Modeler UDF (Server Scoring Adapter) .....	38
Scoring Inside DB2 for z/OS via SQL Pushback .....	41
Publishing the Model into DB2 for z/OS .....	44
Creating an SQL Statement to Perform In-Database Real-time Scoring .....	48
Summary .....	51
Acknowledgments .....	51
Appendix: Load/Insert Data into DB2 for z/OS .....	52
Resources .....	54

**Maximizing Mobile Initiatives with IBM DB2 for z/OS**

<i>by Surekha Parekh and Mark Simmonds</i> .....	55
Introduction .....	55
The Need for Banks to Become Customer Centric .....	55
The Mobile Tipping Point .....	57
Mobile Redefines the Business and Responsibilities .....	58

Banking Your Business on a Mobile Strategy— the DB2 for z/OS Advantage .....	58
Case study: Reducing costs and accelerating time to value with analytics and mobile on the mainframe .....	59
The Need for Speed, Data Currency, and Security.....	60
Under the Hood of a Secure and Fraud-Resistant Mobile Transaction.....	61
Reuse Services and Data to Build Portable Mobile Apps .....	63
Reducing the Complexity of Multiple Mobile Platform Support.....	63
IBM z Systems—Designed for the Mobile Era.....	65
Case study: Growing the business with a secure multi-channel business.....	66
Conclusion.....	67
For More Information.....	67
Notes .....	68

**DB2 for z/OS and Spark Integration**

*DB2 and Spark—the Perfect Partner for Big Data*

<i>by Pallavi Priyadarshini</i> .....	69
Introduction: What Is Spark? .....	69
IBM and Apache Spark: The Start of Something Big in Data and Design.....	69
Apache Spark and DB2 for z/OS .....	69
Blog 1: Using Spark’s Interactive Scala Shell for Accessing DB2 Data Using JDBC Driver and Spark’s New DataFrames API.....	72
Blog 2: Accessing DB2 Data from Spark via Standalone Scala/ Java Programs in Eclipse .....	77
Blog 3: Simplify Joining DB2 Data and JSON Data with Spark .....	88
Blog 4: Persisting Spark DataFrames into DB2 .....	92
Conclusion.....	95