

# Beginning C# 2008 Databases

From Novice  
to Professional



Vidya Vrat Agarwal and James Huddleston

Ranga Raghuram, Syed Fahad Gilani,  
Jacob Hammer Pedersen, and Jon Reid

## **Beginning C# 2008 Databases: From Novice to Professional**

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*In loving memory of James E. Huddleston  
(June 7, 1951–February 25, 2007)*

*&*

*To my sweet little daughter, Pearly,  
and beloved wife, Rupali*

*—Vidya Vrat Agarwal*



# Contents at a Glance

About the Authors .....	xxi
About the Technical Reviewer .....	xxiii
Acknowledgments .....	xxv
Introduction .....	xxvii
■ CHAPTER 1    Getting Your Tools .....	1
■ CHAPTER 2    Getting to Know Your Tools .....	15
■ CHAPTER 3    Getting to Know Relational Databases .....	27
■ CHAPTER 4    Writing Database Queries .....	39
■ CHAPTER 5    Manipulating Database Data .....	73
■ CHAPTER 6    Using Stored Procedures .....	95
■ CHAPTER 7    Using XML .....	119
■ CHAPTER 8    Understanding Transactions .....	135
■ CHAPTER 9    Getting to Know ADO.NET .....	157
■ CHAPTER 10   Making Connections .....	189
■ CHAPTER 11   Executing Commands .....	209
■ CHAPTER 12   Using Data Readers .....	235
■ CHAPTER 13   Using Datasets and Data Adapters .....	265
■ CHAPTER 14   Building Windows Forms Applications .....	321
■ CHAPTER 15   Building ASP.NET Applications .....	349
■ CHAPTER 16   Handling Exceptions .....	369
■ CHAPTER 17   Working with Events .....	391
■ CHAPTER 18   Working with Text and Binary Data .....	403
■ CHAPTER 19   Using LINQ .....	431
■ CHAPTER 20   Using ADO.NET 3.5 .....	449
■ INDEX .....	467



# Contents

About the Authors .....	xxi
About the Technical Reviewer .....	xxiii
Acknowledgments .....	xxv
Introduction .....	xxvii
<b>CHAPTER 1    Getting Your Tools .....</b>	<b>1</b>
Obtaining Visual Studio 2008 .....	2
Installing SQL Server Management Studio Express .....	3
Installing the Northwind Sample Database .....	4
Installing the Northwind Creation Script .....	5
Creating the Northwind Sample Database .....	6
Installing the AdventureWorks Sample Database .....	9
Installing the AdventureWorks Creation Script .....	9
Creating the AdventureWorks Sample Database .....	10
Summary .....	13
<b>CHAPTER 2    Getting to Know Your Tools .....</b>	<b>15</b>
Microsoft .NET Framework Versions and the Green Bit and Red Bit Assembly Model .....	15
Using Microsoft Visual Studio 2008 .....	16
Try It Out: Creating a Simple Console Application Project Using Visual Studio 2008 .....	19
How It Works .....	21
Using SQL Server Management Studio Express .....	22
Summary .....	26

<b>CHAPTER 3</b>	<b>Getting to Know Relational Databases</b>	27
	What Is a Database?	27
	Choosing Between a Spreadsheet and a Database.	28
	Why Use a Database?	28
	Benefits of Using a Relational Database Management System.	29
	Comparing Desktop and Server RDBMS Systems.	29
	Desktop Databases	30
	Server Databases.	30
	The Database Life Cycle.	31
	Mapping Cardinalities.	32
	Understanding Keys	34
	Primary Keys.	35
	Foreign Keys	35
	Understanding Data Integrity.	36
	Entity Integrity	36
	Referential Integrity.	36
	Normalization Concepts	36
	Drawbacks of Normalization	38
	Summary.	38
<b>CHAPTER 4</b>	<b>Writing Database Queries</b>	39
	Comparing QBE and SQL	40
	Beginning with Queries	41
	Try It Out: Running a Simple Query	41
	How It Works	42
	Common Table Expressions	42
	Try It Out: Creating a CTE.	43
	How It Works	44
	GROUP BY Clause	44
	Try It Out: Using the GROUP BY Clause	44
	How It Works.	45



PIVOT Operator . . . . .	46
Try It Out: Using the PIVOT Operator . . . . .	46
How It Works . . . . .	47
ROW_NUMBER() Function . . . . .	48
Try It Out: Using the ROW_NUMBER() Function . . . . .	48
How It Works . . . . .	49
PARTITION BY Clause . . . . .	49
Try It Out: Using the PARTITION BY Clause . . . . .	49
How It Works . . . . .	50
Pattern Matching . . . . .	50
Try It Out: Using the % Character . . . . .	51
How It Works . . . . .	52
Try It Out: Using the _ (Underscore) Character . . . . .	52
How It Works . . . . .	53
Try It Out: Using the [ ] (Square Bracket) Characters . . . . .	54
How It Works . . . . .	54
Try It Out: Using the [^] (Square Bracket and Caret)	
Characters . . . . .	55
How It Works . . . . .	56
Aggregate Functions . . . . .	56
Try It Out: Using the MIN, MAX, SUM, and AVG Functions . . . . .	56
How It Works . . . . .	57
Try It Out: Using the COUNT Function . . . . .	57
How It Works . . . . .	58
DATETIME Functions . . . . .	59
Try It Out: Using T-SQL Date and Time Functions . . . . .	59
How It Works . . . . .	60
Joins . . . . .	61
Inner Joins . . . . .	61
Outer Joins . . . . .	67
Other Joins . . . . .	71
Summary . . . . .	72

<b>CHAPTER 5</b>	<b>Manipulating Database Data</b>	73
	Retrieving Data	73
	Try It Out: Running a Simple Query	74
	How It Works	75
	Using the WHERE Clause	76
	Sorting Data	80
	Using SELECT INTO Statements	83
	Try It Out: Creating a New Table	83
	How It Works	84
	Try It Out: Using SELECT INTO to Copy Table Structure	86
	How It Works	86
	Inserting Data	88
	Try It Out: Inserting a New Row	88
	How It Works	89
	Updating Data	91
	Try It Out: Updating a Row	91
	How It Works	91
	Deleting Data	93
	Summary	94
<b>CHAPTER 6</b>	<b>Using Stored Procedures</b>	95
	Creating Stored Procedures	95
	Try It Out: Working with a Stored Procedure in SQL Server	96
	How It Works	97
	Try It Out: Creating a Stored Procedure with an Input Parameter	99
	How It Works	100
	Try It Out: Creating a Stored Procedure with an Output Parameter	100
	How It Works	102
	Modifying Stored Procedures	103
	Try It Out: Modifying the Stored Procedure	103
	How It Works	105

Displaying Definitions of Stored Procedures . . . . .	106
Try It Out: Viewing the Definition of Your Stored Procedure . . . . .	106
How It Works . . . . .	107
Renaming Stored Procedures . . . . .	107
Try It Out: Renaming a Stored Procedure . . . . .	107
How It Works . . . . .	108
Working with Stored Procedures in C# . . . . .	108
Try It Out: Executing a Stored Procedure with No Input Parameters . . . . .	109
How It Works . . . . .	111
Try It Out: Executing a Stored Procedure with Parameters . . . . .	111
How It Works . . . . .	114
Deleting Stored Procedures . . . . .	115
Try It Out: Deleting a Stored Procedure . . . . .	115
How It Works . . . . .	116
Summary . . . . .	117

<b>CHAPTER 7 Using XML . . . . .</b>	<b>119</b>
Defining XML . . . . .	119
Why XML? . . . . .	120
Benefits of Storing Data As XML . . . . .	120
Understanding XML Documents . . . . .	121
Understanding the XML Declaration . . . . .	123
Converting Relational Data to XML . . . . .	123
Using FOR XML RAW . . . . .	124
Using FOR XML AUTO . . . . .	128
Using the xml Data Type . . . . .	130
Try It Out: Creating a Table to Store XML . . . . .	130
How It Works . . . . .	131
Try It Out: Storing and Retrieving XML Documents . . . . .	131
How It Works . . . . .	133
Summary . . . . .	133

<b>CHAPTER 8</b>	<b>Understanding Transactions</b>	135
	What Is a Transaction?	135
	When to Use Transactions	136
	Understanding ACID Properties	137
	Transaction Design	138
	Transaction State	138
	Specifying Transaction Boundaries	139
	T-SQL Statements Allowed in a Transaction	139
	Local Transactions in SQL Server 2005	139
	Distributed Transactions in SQL Server 2005	141
	Guidelines to Code Efficient Transactions	142
	How to Code Transactions	143
	Coding Transactions in T-SQL	143
	Coding Transactions in ADO.NET	151
	Summary	156
 <b>CHAPTER 9</b>	 <b>Getting to Know ADO.NET</b>	 157
	Understanding ADO.NET	157
	The Motivation Behind ADO.NET	158
	Moving from ADO to ADO.NET	159
	ADO.NET Isn't a New Version of ADO	159
	ADO.NET and the .NET Base Class Library	160
	Understanding ADO.NET Architecture	162
	Working with the SQL Server Data Provider	164
	Try It Out: Creating a Simple Console Application	
	Using the SQL Server Data Provider	165
	How It Works	168
	Working with the OLE DB Data Provider	171
	Try It Out: Creating a Simple Console Application	
	Using the OLE DB Data Provider	172
	How It Works	176

Working with the ODBC Data Provider . . . . .	177
Creating an ODBC Data Source . . . . .	178
Try It Out: Creating a Simple Console Application	
Using the ODBC Data Provider . . . . .	184
How It Works . . . . .	186
Data Providers Are APIs . . . . .	187
Summary . . . . .	188
 <b>CHAPTER 10 Making Connections . . . . .</b>	 189
Introducing the Data Provider Connection Classes . . . . .	189
Connecting to SQL Server Express with SqlConnection . . . . .	190
Try It Out: Using SqlConnection . . . . .	190
How It Works . . . . .	192
Debugging Connections to SQL Server . . . . .	195
Security and Passwords in SqlConnection . . . . .	196
How to Use SQL Server Security . . . . .	197
Connection String Parameters for SqlConnection . . . . .	197
Connection Pooling . . . . .	199
Improving Your Use of Connection Objects . . . . .	199
Using the Connection String in the Connection Constructor . . . . .	199
Displaying Connection Information . . . . .	199
Connecting to SQL Server Express with OleDbConnection . . . . .	205
Try It Out: Connecting to SQL Server Express with the	
OLE DB Data Provider . . . . .	206
How It Works . . . . .	208
Summary . . . . .	208
 <b>CHAPTER 11 Executing Commands . . . . .</b>	 209
Creating a Command . . . . .	209
Try It Out: Creating a Command with a Constructor . . . . .	210
How It Works . . . . .	211
Associating a Command with a Connection . . . . .	211
Assigning Text to a Command . . . . .	213

Executing Commands . . . . .	215
Try It Out: Using the ExecuteScalar Method . . . . .	216
How It Works . . . . .	218
Executing Commands with Multiple Results . . . . .	219
Try It Out: Using the ExecuteReader Method . . . . .	219
How It Works . . . . .	221
Executing Statements . . . . .	222
Try It Out: Using the ExecuteNonQuery Method . . . . .	222
How It Works . . . . .	225
Command Parameters . . . . .	227
Try It Out: Using Command Parameters . . . . .	228
How It Works . . . . .	232
Summary . . . . .	233

## ■ CHAPTER 12 Using Data Readers . . . . . 235

Understanding Data Readers in General . . . . .	235
Try It Out: Looping Through a Result Set . . . . .	236
How It Works . . . . .	238
Using Ordinal Indexers . . . . .	239
Using Column Name Indexers . . . . .	243
Using Typed Accessor Methods . . . . .	244
Getting Data About Data . . . . .	251
Try It Out: Getting Information About a Result Set with a Data Reader . . . . .	251
How It Works . . . . .	255
Getting Data About Tables . . . . .	256
Try It Out: Getting Schema Information . . . . .	256
How It Works . . . . .	258
Using Multiple Result Sets with a Data Reader . . . . .	259
Try It Out: Handling Multiple Result Sets . . . . .	260
How It Works . . . . .	262
Summary . . . . .	264

<b>CHAPTER 13 Using Datasets and Data Adapters</b>	265
Understanding the Object Model	266
Datasets vs. Data Readers	266
A Brief Introduction to Datasets	266
A Brief Introduction to Data Adapters	268
A Brief Introduction to Data Tables, Data Columns, and Data Rows	269
Working with Datasets and Data Adapters	270
Try It Out: Populating a Dataset with a Data Adapter	270
How It Works	273
Filtering and Sorting in a Dataset	274
Comparing FilterSort to PopDataSet	280
Using Data Views	281
Modifying Data in a Dataset	285
Propagating Changes to a Data Source	289
UpdateCommand Property	289
InsertCommand Property	295
DeleteCommand Property	301
Command Builders	306
Concurrency	310
Using Datasets and XML	311
Try It Out: Extracting a Dataset to an XML File	312
How It Works	314
Using Data Tables Without Datasets	315
Try It Out: Populating a Data Table with a Data Adapter	315
How It Works	317
Understanding Typed and Untyped Datasets	318
Summary	319
<b>CHAPTER 14 Building Windows Forms Applications</b>	321
Understanding Windows Forms	321
User Interface Design Principles	322

Best Practices for User Interface Design . . . . .	322
Simplicity . . . . .	322
Position of Controls . . . . .	323
Consistency . . . . .	323
Aesthetics . . . . .	324
Color . . . . .	324
Fonts . . . . .	324
Images and Icons . . . . .	325
Working with Windows Forms . . . . .	325
Understanding the Design and Code Views . . . . .	327
Sorting Properties in the Properties Window . . . . .	328
Categorized View . . . . .	329
Alphabetical View . . . . .	330
Setting Properties of Solutions, Projects, and Windows Forms . . . . .	330
Working with Controls . . . . .	331
Try It Out: Working with the TextBox and Button Controls . . . . .	332
How It Works . . . . .	335
Setting Dock and Anchor Properties . . . . .	335
Dock Property . . . . .	336
Anchor Property . . . . .	336
Try It Out: Working with the Dock and Anchor Properties . . . . .	337
How It Works . . . . .	340
Adding a New Form to the Project . . . . .	340
Try It Out: Adding a New Form to the Windows Project . . . . .	340
Try It Out: Setting the Startup Form . . . . .	341
How It Works . . . . .	342
Implementing an MDI Form . . . . .	342
Try It Out: Creating an MDI Parent Form with a Menu Bar . . . . .	343
Try It Out: Creating an MDI Child Form and Running an MDI Application . . . . .	344
How It Works . . . . .	346
Summary . . . . .	347



<b>CHAPTER 15 Building ASP.NET Applications</b>	349
Understanding Web Functionality	349
The Web Server	350
The Web Browser and HTTP	350
Introduction to ASP.NET and Web Pages	351
Understanding the Visual Studio 2008 Web Site Types	351
File System Web Site	352
FTP Web Site	353
HTTP Web Site	353
Layout of an ASP.NET Web Site	354
Web Pages	355
Application Folders	357
The web.config File	357
Try It Out: Working with a Web Form	358
Try It Out: Working with Split View	359
Using Master Pages	362
Try It Out: Working with a Master Page	363
Summary	368
 <b>CHAPTER 16 Handling Exceptions</b>	 369
Handling ADO.NET Exceptions	369
Try It Out: Handling an ADO.NET Exception (Part 1)	369
How It Works	373
Try It Out: Handling an ADO.NET Exception (Part 2)	375
How It Works	378

Handling Database Exceptions .....	379
Try It Out: Handling a Database Exception (Part 1):	
RAISERROR .....	380
How It Works .....	383
Try It Out: Handling a Database Exception (Part 2):	
Stored Procedure Error .....	385
How It Works .....	387
Try It Out: Handling a Database Exception (Part 3):	
Errors Collection .....	388
How It Works .....	390
Summary .....	390

## ■ CHAPTER 17 Working with Events .....

Understanding Events .....	391
Properties of Events .....	392
Design of Events .....	392
Common Events Raised by Controls .....	393
Event Generator and Consumer .....	394
Try It Out: Creating an Event Handler .....	394
How It Works .....	396
Try It Out: Working with Mouse Movement Events .....	396
How It Works .....	400
Try It Out: Working with the Keyboard's KeyDown and	
KeyUp Events .....	400
How It Works .....	401
Try It Out: Working with the Keyboard's KeyPress Event .....	401
How It Works .....	402
Summary .....	402

<b>CHAPTER 18</b>	<b>Working with Text and Binary Data</b>	403
	Understanding SQL Server Text and Binary Data Types	403
	Storing Images in a Database	404
	Try It Out: Loading Image Binary Data from Files	405
	How It Works	410
	Rerunning the Program	413
	Retrieving Images from a Database	413
	Try It Out: Displaying Stored Images	413
	How It Works	417
	Working with Text Data	419
	Try It Out: Loading Text Data from a File	419
	How It Works	424
	Retrieving Data from Text Columns	425
	Summary	430
<b>CHAPTER 19</b>	<b>Using LINQ</b>	431
	Introduction to LINQ	432
	Architecture of LINQ	433
	LINQ Project Structure	435
	Using LINQ to Objects	437
	Try It Out: Coding a Simple LINQ to Objects Query	437
	How It Works	439
	Using LINQ to SQL	439
	Try It Out: Coding a Simple LINQ to SQL Query	439
	How It Works	442
	Try It Out: Using the where Clause	444
	How It Works	445
	Using LINQ to XML	445
	Try It Out: Coding a Simple LINQ to XML Query	445
	How It Works	447
	Summary	447

CHAPTER 20

Using ADO.NET 3.5

449

Understanding ADO.NET 3.5 Entity Framework

449

Understanding the Entity Data Model

450

Working with the Entity Data Model

451

Try It Out: Creating an Entity Data Model

453

How It Works

461

Try It Out: Schema Abstraction Using an Entity Data Model

462

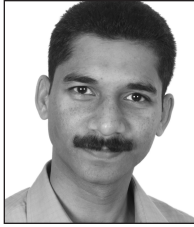
Summary

465

INDEX

467

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He lives with his beloved wife, Rupali, and lovely daughter, Vamika (“Pearly”). He believes that nothing will turn into a reality without them. He is the follower of the concept No Pain, No Gain and believes that his wife is his greatest strength. He is a bibliophile; when he is not working on technical stuff, he likes to be with his family and also likes reading spiritual and occult science books. He blogs at <http://dotnetpassion.blogspot.com>. You can reach him at [Vidya\\_mct@yahoo.com](mailto:Vidya_mct@yahoo.com).



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His translations of Homer’s *Odyssey* and the pseudo-Hesiodic *Shield of Heracles* are available at The Chicago Homer (<http://www.library.northwestern.edu/homer/>). You can remember Jim via his classical blog, <http://onamissionunaccomplished.blogspot.com/>.



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Also big, big thanks to God and to my late grandparents for showering their blessings on me. I promise to be your best kid.

Vidya Vrat Agarwal

# Introduction

**B**ecause most real-world applications interact with data stored in relational databases, every C# programmer needs to know how to access that data. This book specifically covers how to interact with the SQL Server 2005 database using C# 2008. This book also covers LINQ and ADO.NET 3.5, the most exciting features of .NET Framework 3.5. The chapters that shed light on database concepts will help you understand those concepts better than you would have learning them from a pure database concepts book. We also cover many new features of T-SQL, which SQL Server 2005 now incorporates.

This book has been written in such a way that beginners will easily understand the text and even professionals will benefit from the instruction within. If you want to use Visual Studio 2008 to build database applications, this is the right book for you; the text will not only walk you through all the concepts that an application developer may have to use, but also explain each piece of code you will write for example applications.

The chapters in this book are organized in such a manner that you will build a strong foundation before moving on to more advanced techniques.

## Who This Book Is For

If you are an application developer who likes to interact with databases using C#, this book is for you, as it covers programming SQL Server 2005 using C# 2008.

This book does not require or even assume that you have sound knowledge of C# 2.0 and SQL Server 2000 and database concepts. We have covered all the fundamentals that other books assume a reader must have before moving on with the chapters.

This book is a must for any application developer who intends to interact with databases using C# 2008 as the development tool; if this is you, then this book is a must.

## What This Book Covers

This book covers Visual Studio 2008, SQL Server 2005, C# 2008, LINQ, and ADO.NET 3.5. All these topics are covered in the form of chapters that explain these tools and technologies using various concepts and code examples. We also modeled the applications used in this book on real-life applications, so you can utilize the concepts that you will learn throughout this book in your professional life.

## How This Book Is Organized

This book is organized in such a way that concepts in each chapter are built upon in subsequent chapters. We also tried to make chapters self-contained, so the reader can concentrate on the chapter at hand rather than switching focus among the chapters to understand the concepts.

The concepts explained in each chapter are demonstrated with code examples in the “Try It Out” sections, which are usually followed by “How It Works” sections that will help you understand each code statement and its purpose.

## How to Download the Sample Code

All the source code is available in the Source Code/Download section at <http://www.apress.com>. You will need to answer questions pertaining to this book in order to successfully download the code.