
Contents at a Glance

Part I Getting Started

1	Quick Tour of Microsoft Office Access 2007	3
2	The World of Relational Databases	27
3	Creating a Database	41
4	Creating and Modifying Tables	57
5	Relating Tables	95
6	Entering and Editing Data	113

Part II Retrieving and Presenting Information

7	Sorting, Filtering, and Printing Records	163
8	Extracting Information with Queries	191
9	Creating Advanced Queries	241
10	Creating Form and Report Designs	269
11	Using the Form Tools	315
12	Customizing Forms	345
13	Using the Report Wizard	391
14	Customizing Reports	423
15	Creating Charts and Graphs	465

Part III Improving the Workplace

16	Customizing the Workplace	499
17	Improving Database Performance	531
18	Understanding Events and the Event Model	553
19	Automating with Macros	569
20	Customizing the User Interface	599
21	Customizing the Navigation Pane and Creating Switchboards	623

Part IV Exchange Data with Others

22	Exchange Database Objects and Text	655
23	Exchanging Data with Outside Sources	683
24	Sharing with Multiple Users	707

25	Secure a Database	719
A	Converting to Access 2007	733
B	What's on the CD	739
	Index	743

Contents

Acknowledgments	xix
Introduction	xxi

Part I Getting Started

1 Quick Tour of Microsoft Office Access 2007	3
Starting Access and Opening a Database	3
Touring the Access Window	4
Opening a Database	6
Touring the Navigation Pane and the Object Window	11
Looking at the Ribbon	13
Checking out the Galleries and the Mini Toolbars	14
Using Shortcut Menus	15
Looking at a Table	15
Touring the Datasheet View	16
Looking at a Subdatasheet	19
Looking at Data in a Form	20
Looking at the Wizards	22
Getting Help	23
Using the Microsoft Access Help Window	23
Asking What's This?	24
Getting Help with What You're Doing	24
Summary	26
2 The World of Relational Databases	27
What Is a Relational Database?	27
Purpose of Relationships	28
Types of Relationships	30
Referential Integrity	32
Defining Database Objects	32
Inspecting the Sample Database	33
Looking at the Data Distribution	34
Viewing Table Relationships	35
The Payoff	37
A Custom Form	37
A Custom Report	38
Summary	38

3	Creating a Database	41
	Designing the Database	41
	Introducing Home Tech Repair	42
	Determining the Goals of the Database	42
	Distributing the Data	42
	Specifying Key Fields and Relationships	46
	Completing the Database	46
	Creating a Database from a Template	48
	Running the New Application	53
	Starting with a Blank Database	54
	Summary	55
4	Creating and Modifying Tables	57
	Creating a New Table from a Template	57
	Creating a New Table in Datasheet View	58
	Adding Fields to the New Table	59
	Using a Field Template	60
	Adding Fields from an Existing Table	61
	Save the New Table	63
	Creating a New Table in Design View	63
	Touring the Table Design View	63
	Adding Fields	64
	Choosing a Primary Key	75
	Creating Other Indexes	77
	Saving the Table Design	78
	Modifying the Table Design	79
	Adding/Deleting Fields	79
	Changing the Field Order	81
	Changing a Field Name or Type	81
	Changing a Field Size	82
	Modifying or Deleting the Primary Key	82
	Ensuring Data Validity	84
	Defining Field Validation Rules	85
	Defining a Record Validation Rule	88
	Requiring an Entry and Preventing Duplicates	89
	Handling Blank Fields	89
	Assigning a Default Value	90
	Copying an Existing Table Structure	91
	Setting Table Properties	91
	How to Change the Default Table Design Properties	92
	Summary	93
5	Relating Tables	95
	Defining a Relationship	95
	Using the Relationships Window	96
	Using the Field List Pane	106

Viewing and Editing Relationships	107
Viewing Existing Relationships	107
Modifying or Deleting a Relationship	108
Changing a Table Design from the Relationships Window	109
Printing the Relationships	109
Summary	112
6 Entering and Editing Data	113
Entering New Data	113
Copying and Moving Data	114
Inserting Pictures	118
Inserting Hyperlinks	119
Attaching Files to a Table	125
Customizing Data Entry	127
Adding Input Masks	127
Creating Lookup Fields	132
Changing the Datasheet Appearance	140
Displaying Subdatasheets	141
Moving and Resizing Columns and Rows	142
Freezing and Hiding Columns	145
Changing the Font	146
Changing Gridlines and Cells	146
Setting Datasheet Default Options	147
Changing a Table Definition	149
Inserting a Subdatasheet	149
Inserting/Deleting a Column	149
Changing Field Names	150
Editing Record Data	150
Selecting Records and Fields	151
Locating Records	152
Finding and Replacing Data	156
Deleting Data	158
Using the Spelling Checker and AutoCorrect	158
Printing Table Data	160
Summary	160

Part II Retrieving and Presenting Information

7 Sorting, Filtering, and Printing Records	163
Sorting Records	163
Sorting on a Single Field	164
Sorting by Two or More Fields	164
Saving the Sort Order	165

Filtering Records	165
Filtering by Context	168
Using the Filter Command	171
Filter By Selection	172
Filter By Form	175
Optimizing Filter By Form	182
Filtering with Advanced Filter/Sort	183
Modifying a Filter	185
Saving a Filter	185
Removing and Clearing Filters	187
Printing Table Data	187
Summary	189
8 Extracting Information with Queries	191
How Do Queries Work?	191
Access Query Categories	192
When to Use a Filter and When to Use a Query	192
Creating Select Queries	194
Using the Simple Query Wizard	194
Touring the Query Design Window	197
Creating a Query without the Wizard	199
Relating Multiple Tables in a Query	201
Adding/Removing Fields	202
Running and Saving the Query	206
Hiding/Showing Fields	209
Specifying the Record Order	209
Showing Highest or Lowest Values	209
Adding Selection Criteria	211
Using Wildcards and Operators	212
Using a Single Criterion	214
Using Multiple Criteria	215
Getting Help from the Expression Builder	218
Handling Blank Fields	220
Setting Query Properties	221
Modifying a Query	221
Inserting a Field and Changing the Field Order	222
Changing Field Properties	222
Performing Calculations in a Query	224
Adding a Calculated Field	224
Summarizing with the Wizard	227
Summarizing with Aggregate Functions	228
Summarizing in Datasheet View	233
Creating Special Queries with the Query Wizard	234
Creating a Find Duplicates Query	234
Creating a Find Unmatched Query	235
Creating a Crosstab Query	236

Printing the Query Results	240
Deleting a Query	240
Summary	240
9 Creating Advanced Queries	241
Creating Special Purpose Queries	241
Parameter Queries	241
AutoLookup Queries	246
Designing Action Queries	248
Update Query	248
Make-Table Query	253
Append Query	255
Delete Query	257
Introducing Structured Query Language	260
Looking at SQL Statements	260
SQL Conventions and Syntax	262
Creating a Subquery	264
Defining a Criterion	264
Defining a New Field	266
Summary	267
10 Creating Form and Report Designs	269
Deciding the Database Object Type	269
Common Design Elements	270
Choosing a Record Source	270
Understanding Controls	270
Form and Report Design Properties	273
Working in the Design Window	273
Touring the Form Design Window	274
Starting a New Design	279
Adding Controls	280
Starting a New Form in Layout View	287
Modifying Form Sections and Controls	288
Selecting Controls and Other Objects	288
Moving and Resizing Controls	292
Aligning and Spacing Controls	295
Using Property Sheets	296
Using the Font Group	301
Formatting Conditionally	301
Changing a Control Type	304
Deleting Controls	304
Adding Other Objects and Special Effects	304
Linking vs. Inserting Objects	305
Adding Bound Objects	305
Adding an Unbound Object	306
Adding a Picture	307

Changing Form and Report Properties	309
Changing the Record Source	310
Applying Filters and Sort Orders	311
Resizing a Form or Report	312
Using AutoFormat	312
Summary	313
11 Using the Form Tools	315
Creating a New Form Design	315
Designing the Form	315
Starting a New Form	316
Choosing a Form Design Structure	316
Using the Form Wizard	321
Selecting the Form Data	321
Choosing the Form Layout and Style	323
Modifying the Form Design	325
Examining Form Properties	325
Changing Form Sections	327
Moving and Adding Controls	329
Sorting and Filtering Data in a Form	333
Using the Form for Data Entry	335
Navigating in the Form	335
Changing the Tab Order	336
Finding Records	338
Viewing Multiple Records	339
Printing the Form	339
Looking at the Other Wizards	340
Creating a Hierarchical Form from Related Tables	341
Summary	344
12 Customizing Forms	345
Starting a New Custom Form	345
Placing and Customizing Data-Related Controls	345
Adding Yes/No Controls	354
Adding User-Interactive Controls	357
Creating a Multiple-Page Form	364
Using the Page Break Control	364
Adding a Tab Control	364
Adding Special Controls	368
Adding Calculated Controls	368
ActiveX Controls	372
Introducing the Police Database	375
Adding a Subform	378
With the Subform Wizard	378
Without the Subform Wizard	380
Using the Hierarchical Form	381

Modifying a Subform	382
Linking and Synchronizing Forms	383
Adding Custom Help	386
Custom Control Tips	387
Status Bar Messages	387
Validating or Restricting Data in Forms	388
Validating with Properties	388
Validating with Events	389
Summary	390
13 Using the Report Wizard	391
Creating a New Report Design	391
What Is the Purpose of the Report?	391
Selecting, Sorting, and Grouping the Data	392
Starting a Report	394
Using the Report Tool	394
Using the Report Wizard	395
Previewing the Report	405
Working in the Print Preview Window	405
Printing the Report	408
Changing the Page Settings	409
Modifying the Report Design	410
Touring the Report Design Window	411
Examining Report Sections	411
Setting Report and Section Properties	412
Placing and Adjusting Controls	413
Changing the Report Style	413
Adding Page Numbers and Date/Time	415
Adding Page Breaks	417
Saving the Report Design	417
Using Report Snapshots	418
Creating a Report Snapshot	419
Viewing the Report Snapshot	420
Sending the Report Snapshot	421
Summary	422
14 Customizing Reports	423
Creating a New Report Design	423
Adding Headers and Footers	427
Customizing with Special Controls	429
Basing a Report on a Parameter Query	433
Filtering, Sorting, and Grouping Records in Layout View	437
Filtering Records in Layout View	438
Changing the Sort Order	439
Adding Group Sections	441
Modifying and Adding Groups	447

Adding a Subreport	450
Creating a Subreport Control	452
Inserting an Existing Subreport	454
Linking the Report and Subreport	454
Modifying a Subreport Control	456
Designing a Multiple-Column Report	457
Grouping Records in a Multiple-Column Report	459
Printing Mailing Labels and Envelopes	460
Using the Label Wizard	460
Manipulating Text Data	462
Printing Addresses on Envelopes	464
Summary	464
15 Creating Charts and Graphs	465
Creating a New Chart	465
The Anatomy of a Chart	466
Selecting the Data for the Chart	470
Using the Access Chart Wizard	470
Printing and Saving the Chart	474
Linking to Record Data	474
Adding an Existing Chart	476
Modifying the Chart	477
Modifying with Access	477
Editing with Microsoft Graph	484
Summary	495

Part III Improving the Workplace

16 Customizing the Workplace	499
Personalizing the Workplace	499
Working with Objects in the Navigation Pane	499
Using the Ribbon	503
Creating a Shortcut	503
Setting Access Options	504
Setting Popular Options	505
Setting Options for the Current Database	506
Setting Datasheet Options	511
Object Designers Options	513
Proofing Options	516
Advanced Options	518
Customizing the Toolbar	525
Viewing and Managing Add-Ins	525
Choosing Trust Center Options	527
Searching Additional Resources	529
Customizing the Status Bar	530

17	Improving Database Performance	531
	Optimizing a Database	531
	Using the Analyzer Wizards	531
	Optimizing Tables and Queries	537
	Working with Linked Tables	539
	Optimizing Filter By Form	539
	Optimizing Forms and Reports	540
	Optimizing Controls	541
	Avoiding Errors	542
	Backing Up and Restoring a Database	544
	Compacting and Repairing a Database	546
	Documenting a Database	548
	Summary	550
18	Understanding Events and the Event Model	553
	What Are Events?	553
	Types of Events	554
	Understanding the Sequence of Events	559
	Form Control Events	559
	Form Record Events	560
	Form and Subform Events	561
	Keystrokes and Mouse Events	563
	Report and Report Section Events	564
	Setting Event Properties	565
	Summary	567
19	Automating with Macros	569
	How Macros Work	569
	Standalone vs. Embedded Macros	570
	Creating a Macro	570
	Touring the Macro Design Window	571
	Creating a Simple Macro	573
	Choosing Actions	575
	Setting Action Arguments	576
	Testing and Debugging a Macro	576
	Starting the Macro	577
	Stepping through a Macro	577
	Modifying a Macro	578
	Adding Conditions to a Macro	579
	Running a Macro with a Condition	580
	Choosing between Two Actions	580
	Assigning a Macro to an Event Property	581
	Deciding Which Event to Use	582
	Some Common Uses for Macros	583
	Displaying a Message Box	583
	Validating Data	584

	Filtering Records	586
	Setting Values and Properties	586
	Changing the Flow of Operations	589
	Nesting Macros	592
	Create a Macro Group	593
	Assigning AutoKeys	594
	Documenting Macros	596
	Creating an AutoExec Macro	596
	Summary	597
20	Customizing the User Interface	599
	Working with the Ribbon	599
	Resizing the Ribbon	599
	Hiding and Restoring the Ribbon	600
	Using Keyboard Shortcuts for Ribbon Commands	601
	Customizing the Quick Access Toolbar	601
	Moving the Quick Access Toolbar	601
	Adding Commands to the Toolbar	602
	Removing Commands from the Toolbar	606
	Using Existing Customization	607
	Showing a Startup Switchboard	607
	Using Custom Menus and Toolbars	608
	Creating a Custom Dialog Box	610
	Designing the Form	610
	Creating and Attaching the Macros	613
	Creating a Dialog Box for User Input	619
	Setting the Input Form Properties	620
	Creating the Macros	620
	Modifying the Query	621
	Summary	621
21	Customizing the Navigation Pane and Creating Switchboards	623
	Viewing Objects in the Navigation Pane	623
	Changing Categories and Groups	623
	Hiding and Restoring Groups and Objects	629
	Searching for an Object	631
	Customizing the Navigation Pane	633
	Planning the Custom Groups	633
	Hiding/Restoring Custom Groups and Objects	638
	Creating Switchboards	639
	Using the Switchboard Manager to Create Switchboards	640
	Modifying the Switchboard	647
	Creating a Switchboard without the Manager	650
	Summary	651

Part IV Exchange Data with Others

22	Exchange Database Objects and Text	655
	Copying Objects among Access Databases	656
	Copy-and-Paste	656
	Drag-and-Drop	657
	Importing or Linking Access Data	657
	Importing Objects	658
	Setting Import Options	661
	Linking Access Tables	662
	Importing from or Linking to Other Data Sources	664
	Using Data from dBASE or Paradox	665
	Using Linked or Imported Tables	667
	Renaming a Linked Table in Access	667
	Changing Linked Table Properties	667
	Updating Links with the Linked Table Manager	667
	Unlinking Tables	669
	Importing and Linking Text Files	669
	Using Delimited Text Files	669
	Using Fixed-Width Text Files	672
	Changing Import Specifications	673
	Exporting to an Existing Access Database	675
	Exporting to Another Database Format	677
	Exporting to Text Files	678
	Summary	681
23	Exchanging Data with Outside Sources	683
	Copying or Moving Records	683
	Copying or Moving Data from a Word Processor	684
	Copying or Moving Data from a Spreadsheet	686
	Copying or Moving Records from Access to Another Application	686
	Saving Access Output as an External File	687
	Working with Word	689
	Saving in Rich Text Format	689
	Using Merge It with Microsoft Office Word	689
	Working with Excel	693
	Importing from and Linking to Excel Spreadsheets	693
	Exporting a Table or Query to Excel	697
	Working with HTML Documents	698
	Importing Data from HTML Documents	699
	Exporting Data to HTML Documents	699
	Using Outlook to Get Data	700
	Getting Contacts from Outlook into Access	700
	Using E-mail to Collect Data	700

Managing Links and Saved Import/Export Definitions	703
Using Saved Definitions	704
Managing Links	704
Mailing Access Objects	704
Summary	705
24 Sharing with Multiple Users	707
Sharing a Database on a Network	707
Sharing an Entire Database	707
Splitting the Database	708
Preventing Exclusive Access	712
Managing the Database in a Multiuser Environment	713
Controlling Data Editing	713
Minimizing Conflicts	716
Updating Records with Refresh and Requery	716
Editing Shared Database Objects	718
Summary	718
25 Secure a Database	719
New Security Measures	719
Enabling/Disabling Database Content	720
Encrypting the Database	720
Encrypting with a Password	721
Using the Trust Center	722
Creating a Trusted Environment	722
Trusting Macros	725
Trusting Add-Ins	727
Security with Earlier Version Databases	728
Creating a Certificate	729
Code-Signing the Database	730
Summary	731
A Converting to Access 2007	733
Deciding on a Conversion Strategy	733
Converting a Database to Access 2007	734
Converting a Workgroup Information File (.mdw)	735
Converting a Secured Database	736
Converting a Replicated Database	736
Converting to an Earlier Version	737
Opening an Earlier Database	737
Sharing a Database across Several Access Versions	738
B What's on the CD	739
Using the Access Quick Reference	739
Using the Access Database Files	741
Index	743