

Concepts of Database Management Eighth Edition

Chapter 1

Introduction to Database Management

TAL Distributors Background

- TAL Distributors
 - Wholesaler of wooden toys, games, puzzles
 - Uses spreadsheet software to maintain important data
 - Recent growth has made spreadsheet approach problematic

TAL Distributors Background (continued)

Orders requiring more than one spreadsheet row

Customer Number	Customer Name	Order Number	Order Date	Item Number	Description	Number Ordered	Quoted Price	Store house	Rep Number
126	Toys Galore	51608	10/12/2015	CD33	Wood Block Set (48 piece)	5	\$86.99	1	15
126	Toys Galore	51619	10/15/2015	FD11	Rocking Horse	2	\$121.95	3	15
260	Brookings Direct	51614	10/13/2015	FD11	Rocking Horse	1	\$124.95	3	30
334	The Everything Shop	51610	10/12/2015	KL78	Pick Up Sticks	25	\$10.95	1	45
334	The Everything Shop	51610	10/12/2015	TR40	Tic Tac Toe	10	\$13.99	2	45
386	Johnson's Department Store	51613	10/13/2015	DL51	Classic Railway Set	5	\$104.95	3	30
586	Almondton General Store	51617	10/15/2015	NL89	Wood Block Set (62 piece)	4	\$115.99	3	45
586	Almondton General Store	51617	10/15/2015	TW35	Fire Engine	3	\$116.95	2	45
586	Almondton General Store	51623	10/15/2015	DR67	Giant Star Brain Teaser	5	\$29.95	2	45
586	Almondton General Store	51623	10/15/2015	FH24	Puzzle Gift Set	12	\$36.95	1	45
586	Almondton General Store	51623	10/15/2015	KD34	Pentominoes Brain Teaser	10	\$13.10	2	45
796	Unique Gifts	51625	10/16/2015	MT03	Zauberkasten Brain Teaser	8	\$45.79	1	45

FIGURE 1-1: Sample orders spreadsheet

TAL Distributors Background (continued)

- Problems using spreadsheet
 - **Redundancy**
 - Duplication of data or the storing of the same data in more than one place
 - Difficulty accessing related data
 - Limited security
 - Size limitations

TAL Distributors Background (continued)

- Information TAL Distributors needs to maintain
 - Sales Reps
 - Sales rep number, last name, first name, address, total commission, commission rate
 - Customers
 - Customer number, name, address, current balance, credit limit, number of customer's sales rep
 - Items Inventory
 - Item number, description, number units on hand, item category, storehouse number, unit price

TAL Distributors Background (continued)

ITEM NUMBER	DESCRIPTION	NUMBER ORDERED	PRICE	TOTAL
KL78	Pick Up Sticks	25	10.95	273.75
TR40	Tic Tac Toe	10	13.99	139.90
TOTAL				413.65

TAL Distributors
 555 Main Street
 San Rita, TX 78364
 Phone (512-555-0190 Fax (512-555-0191))

INVOICE
 ORDER: 51610
 DATE: October 12, 2015

TO:
 CUSTOMER: 334
 The Everything Shop
 342 Magee St.
 Congaree, CA 90097

SALES REP: 45
 Hui Tian

Extensions: 273.75 + 139.90 = 413.65

Make all checks payable to TAL Distributors
 Total due in 15 days. Overdue accounts subject to a service charge of 1% per month.

Thank you for your business!

FIGURE 1-2: Sample order

TAL Distributors Background (continued)

- Items for each customer's order
 - Order
 - Order number, order date, customer number
 - Order line
 - Order number, item number, number of units ordered, quoted price
 - Overall order total
 - Not stored because it can be calculated

Database Background

- Database
 - Structure that can store information about:
 - Different categories of information
 - Relationships between those categories of information
- **Entity**
 - Person, place, object, event, or idea
 - Entities for TAL Distributors: sales reps, customers, orders, and items

Database Background (continued)

- **Attribute**
 - Characteristic or property of an entity
 - Example: Customer has name, street, city, etc.
 - May also be called a **field** or **column**
- **Relationship**
 - Association between entities
 - **One-to-many relationship**
 - Each rep is associated with many customers
 - Each customer is associated with a single rep

Database Background (continued)

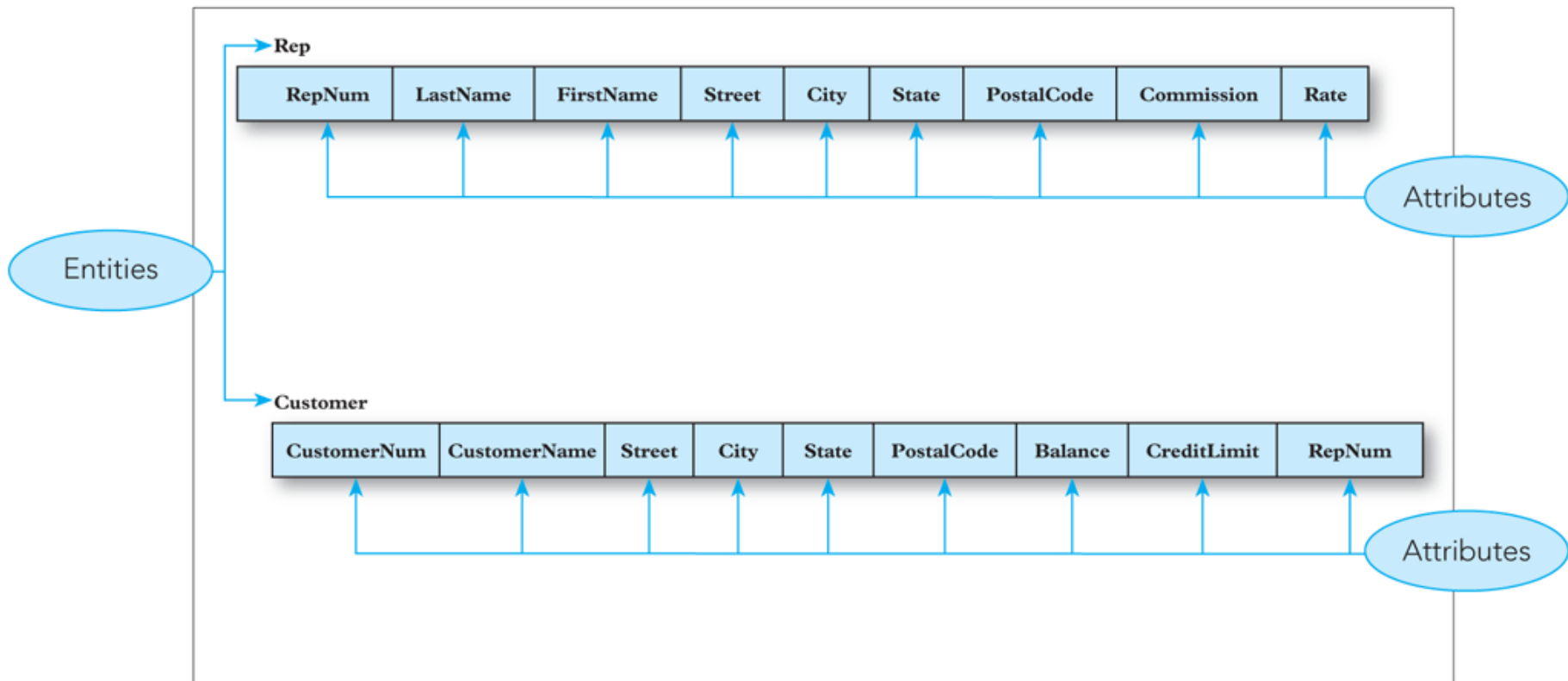


FIGURE 1-3: Entities and attributes

Database Background (continued)

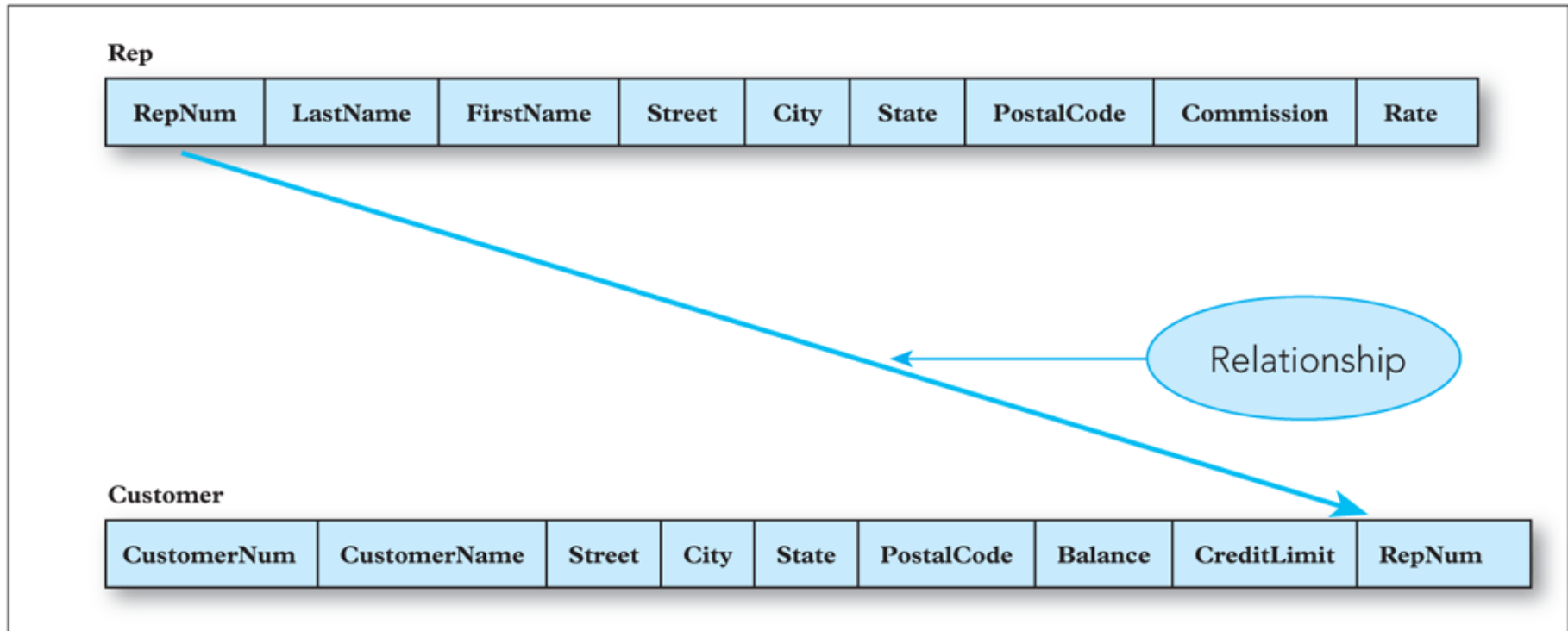


FIGURE 1-4: One-to-many relationship

Database Background (continued)

Database Background (continued)

Rep

RepNum	LastName	FirstName	Street	City	State	PostalCode	Commission	Rate
15	Campos	Rafael	724 Vinca Dr.	Grove	CA	90092	\$23,457.50	0.06
30	Gradey	Megan	632 Liatris St.	Fullton	CA	90085	\$41,317.00	0.08
45	Tian	Hui	1785 Tyler Ave.	Northfield	CA	90098	\$27,789.25	0.06
60	Sefton	Janet	267 Oakley St.	Congaree	CA	90097	\$0.00	0.06

Customer

CustomerNum	CustomerName	Street	City	State	PostalCode	Balance	CreditLimit	RepNum
126	Toys Galore	28 Laketon St.	Fullton	CA	90085	\$1,210.25	\$7,500.00	15
260	Brookings Direct	452 Columbus Dr.	Grove	CA	90092	\$575.00	\$10,000.00	30
334	The Everything Shop	342 Magee St.	Congaree	CA	90097	\$2,345.75	\$7,500.00	45
386	Johnson's Department Store	124 Main St.	Northfield	CA	90098	\$879.25	\$7,500.00	30
440	Grove Historical Museum Store	3456 Central Ave.	Fullton	CA	90085	\$345.00	\$5,000.00	45
502	Cards and More	167 Hale St.	Mesa	CA	90104	\$5,025.75	\$5,000.00	15
586	Almondton General Store	3345 Devon Ave.	Almondton	CA	90125	\$3,456.75	\$15,000.00	45
665	Cricket Gift Shop	372 Oxford St.	Grove	CA	90092	\$678.90	\$7,500.00	30
713	Cress Store	12 Rising Sun Ave.	Congaree	CA	90097	\$4,234.60	\$10,000.00	15
796	Unique Gifts	786 Passmore St.	Northfield	CA	90098	\$124.75	\$7,500.00	45
824	Kline's	945 Gilham St.	Mesa	CA	90104	\$2,475.99	\$15,000.00	30
893	All Season Gifts	382 Wildwood Ave.	Fullton	CA	90085	\$935.75	\$7,500.00	15

FIGURE 1-5: Sample data TAL Distributors

Database Background (continued)

Orders			OrderLine			
OrderNum	OrderDate	CustomerNum	OrderNum	ItemNum	NumOrdered	QuotedPrice
51608	10/12/2015	126	51608	CD33	5	\$86.99
51610	10/12/2015	334	51610	KL78	25	\$10.95
51613	10/13/2015	386	51610	TR40	10	\$13.99
51614	10/13/2015	260	51613	DL51	5	\$104.95
51617	10/15/2015	586	51614	FD11	1	\$124.95
51619	10/15/2015	126	51617	NL89	4	\$115.99
51623	10/15/2015	586	51617	TW35	3	\$116.95
51625	10/16/2015	796	51619	FD11	2	\$121.95
			51623	DR67	5	\$29.95
			51623	FH24	12	\$36.95
			51623	KD34	10	\$13.10
			51625	MT03	8	\$45.79

FIGURE 1-5: Sample data for TAL Distributors (continued)

Database Background (continued)

Item

ItemNum	Description	OnHand	Category	Storehouse	Price
AH74	Patience	9	GME	3	\$22.99
BR23	Skittles	21	GME	2	\$29.99
CD33	Wood Block Set (48 piece)	36	TOY	1	\$89.49
DL51	Classic Railway Set	12	TOY	3	\$107.95
DR67	Giant Star Brain Teaser	24	PZL	2	\$31.95
DW23	Mancala	40	GME	3	\$50.00
FD11	Rocking Horse	8	TOY	3	\$124.95
FH24	Puzzle Gift Set	65	PZL	1	\$38.95
KA12	Cribbage Set	56	GME	3	\$75.00
KD34	Pentominoes Brain Teaser	60	PZL	2	\$14.95
KL78	Pick Up Sticks	110	GME	1	\$10.95
MT03	Zauberkasten Brain Teaser	45	PZL	1	\$45.79
NL89	Wood Block Set (62 piece)	32	TOY	3	\$119.75
TR40	Tic Tac Toe	75	GME	2	\$13.99
TW35	Fire Engine	30	TOY	2	\$118.95

FIGURE 1-5: Sample data for TAL Distributors (continued)

Database Background (continued)

Orders

OrderNum	OrderDate	CustomerNum	ItemNum	NumOrdered	QuotedPrice
51608	10/12/2015	126	CD33	5	\$86.99
51610	10/12/2015	334	KL78	25	\$10.95
			TR40	10	\$13.99
51613	10/13/2015	386	DL51	5	\$104.95
51614	10/13/2015	260	FD11	1	\$124.95
51617	10/15/2015	586	NL89	4	\$115.99
			TW35	3	\$116.95
51619	10/15/2015	126	FD11	2	\$121.95
51623	10/15/2015	586	DR67	5	\$29.95
			FH24	12	\$36.95
			KD34	10	\$13.10
51625	10/16/2015	796	MT03	8	\$45.79

FIGURE 1-6: Alternative Orders table structure

Database Background (continued)

- **Entity-relationship (E-R) diagram**
 - Visual way to represent a database
 - Rectangles represent entities
 - Lines represent relationships between connected entities

Database Background (continued)

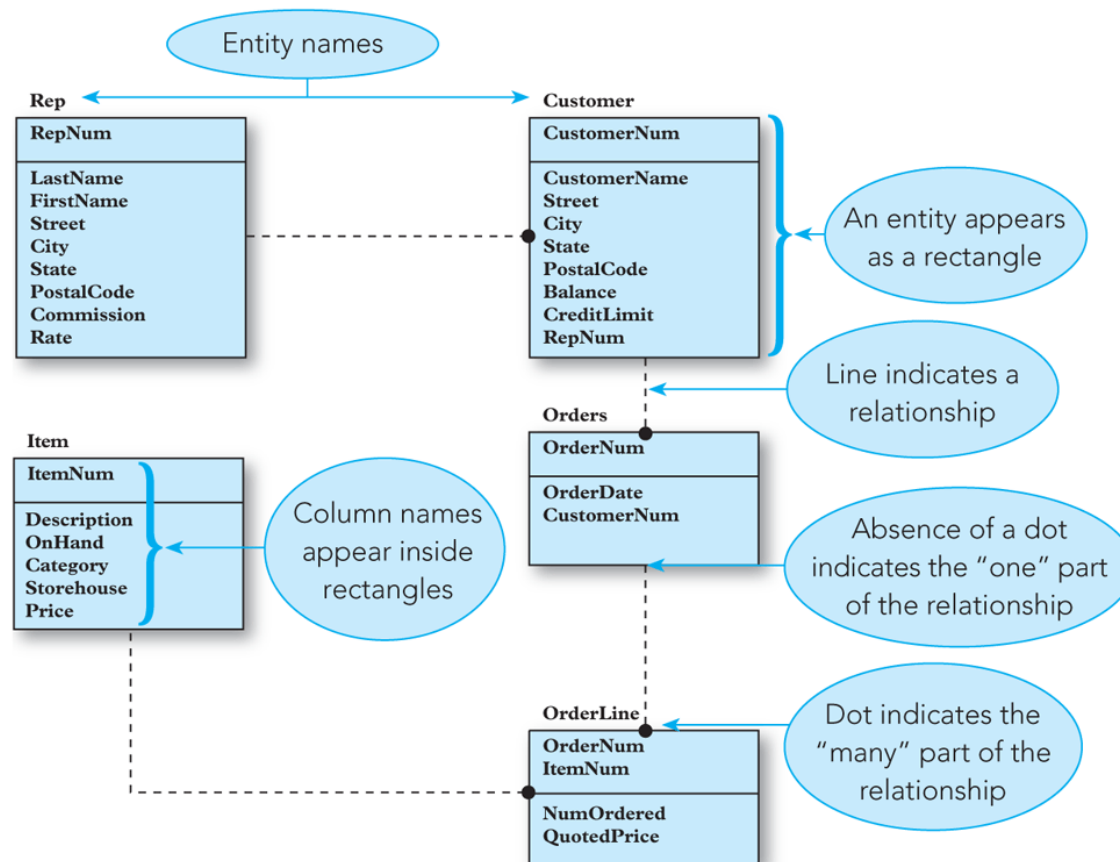


FIGURE 1-7: E-R diagram for the TAL Distributors database

Database Management Systems

- **Database management system (DBMS)**
 - Program, or collection of programs, through which users interact with a database
- Popular DBMSs: Access, Oracle, DB2, MySQL, and SQL Server
- TAL Distributors decides to use Access
- **Database design**
 - Determining the structure of the required database

Database Management Systems (continued)

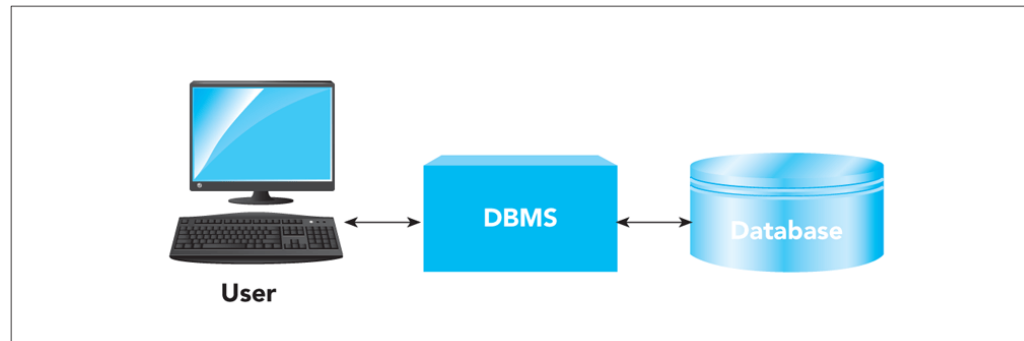


FIGURE 1-8: Using a DBMS directly

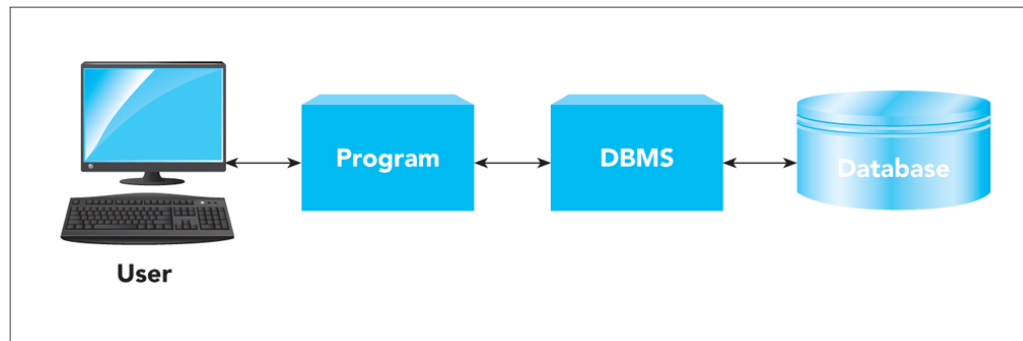


FIGURE 1-9: Using a DBMS through another program

Database Management Systems (continued)

- **Forms**
 - Screen objects used to maintain, view, and print data from a database
 - DBMS creates forms that TAL Distributors needs
- **Reports**
 - DBMS creates reports for TAL Distributors based on user's answers about the desired content and appearance of each report

Database Management Systems (continued)

The image shows a screenshot of a database form titled 'Item'. The form contains several input fields with the following data:

Field Name	Field Value
ItemNum	AH74
Description	Patience
OnHand	9
Category	GME
Storehouse	3
Price	\$22.99

Annotations in the image include a blue oval labeled 'Field names' with an arrow pointing to the left side of the form, and another blue oval labeled 'Field values' with an arrow pointing to the right side of the form. Blue brackets are used to group the field names and field values respectively.

FIGURE 1-10: Item form

Database Management Systems (continued)

The screenshot shows a form titled 'Orders' with the following fields and values:

- OrderNum: 51608
- OrderDate: 10/12/2015
- CustomerNum: 126

Below these fields is a table with the following data:

ItemNum	NumOrdered	QuotedPrice
CD33	5	\$86.99
*		

Annotations in the image include:

- A blue oval labeled 'Fields from the Orders table' pointing to the OrderNum, OrderDate, and CustomerNum fields.
- A blue oval labeled 'Fields from the OrderLine table' pointing to the CustomerNum field and the first row of the table below.

At the bottom of the form, there is a record navigation bar showing 'Record: 1 of 1', 'No Filter', and a 'Search' button.

FIGURE 1-11: Orders form

Database Management Systems (continued)

Item					
ItemNum	Description	OnHand	Category	Storehouse	Price
AH74	Patience	9	GME	3	\$22.99
BR23	Skittles	21	GME	2	\$29.99
CD33	Wood Vlock Set (48 piece)	36	TOY	1	\$89.49
DL51	Classic Railway Set	12	TOY	3	\$107.95
DR67	Giant Star Brain Teaser	24	PZL	2	\$31.95
DW23	Mancala	40	GME	3	\$50.00
FD11	Rocking Horse	8	TOY	3	\$124.95
FH24	Puzzle Gift Set	65	PZL	1	\$38.95
KA12	Cribbage Set	56	GME	3	\$75.00
KD34	Pentominoes Brain Teaser	60	PZL	2	\$14.95
KL78	Pick Up Sticks	110	GME	1	\$10.95
MT03	Zauberkasten brain Teaser	45	PZL	1	\$45.79
NL89	Wood Block Set (62 piece)	32	TOY	3	\$119.75
TR40	Tic Tac Toe	75	GME	2	\$13.99
TW35	Fire Engine	30	TOY	2	\$118.95

FIGURE 1-12: Item report

Advantages of Database Processing

1. Getting more information from the same amount of data
2. Sharing data
3. Balancing conflicting requirements
 - **Database administrator** or **database administration (DBA)**: person or group in charge of the database
4. Controlling redundancy
5. Facilitating consistency

Advantages of Database Processing (continued)

6. Improving integrity
 - **Integrity constraint:** a rule that data must follow in the database
7. Expanding security
 - **Security:** prevention of unauthorized access
8. Increasing productivity
9. Providing data independence
 - **Data independence:** can change structure of a database without changing the programs that access the database

Disadvantages of Database Processing

1. Larger file size
2. Increased complexity
3. Greater impact of failure
4. More difficult recovery

Introduction to Colonial Adventure Tours Database Case

- Colonial Adventure Tours
 - Small business
 - Organizes day-long guided trips of New England
- Management decided to use database to gather and store information on:
 - Guides
 - Trips
 - Customers
 - Reservations

Introduction to Colonial Adventure Tours Database Case (continued)

Guide

GuideNum	LastName	FirstName	Address	City	State	PostalCode	PhoneNum	HireDate
AM01	Abrams	Miles	54 Quest Ave.	Williamsburg	MA	01096	617-555-6032	6/3/2012
BR01	Boyers	Rita	140 Oakton Rd.	Jaffrey	NH	03452	603-555-2134	3/4/2012
DH01	Devon	Harley	25 Old Ranch Rd.	Sunderland	MA	01375	781-555-7767	1/8/2012
GZ01	Gregory	Zach	7 Moose Head Rd.	Dummer	NH	03588	603-555-8765	11/4/2012
KS01	Kiley	Susan	943 Oakton Rd.	Jaffrey	NH	03452	603-555-1230	4/8/2013
KS02	Kelly	Sam	9 Congaree Ave.	Fraconia	NH	03580	603-555-0003	6/10/2013
MR01	Marston	Ray	24 Shenandoah Rd.	Springfield	MA	01101	781-555-2323	9/14/2015
RH01	Rowan	Hal	12 Heather Rd.	Mount Desert	ME	04660	207-555-9009	6/2/2014
SL01	Stevens	Lori	15 Riverton Rd.	Coventry	VT	05825	802-555-3339	9/5/2014
UG01	Unser	Glory	342 Pineview St.	Danbury	CT	06810	203-555-8534	2/2/2015

FIGURE 1-15: Sample guide data for Colonial Adventure Tours

Introduction to Colonial Adventure Tours Database Case (continued)

Trip

TripID	TripName	StartLocation	State	Distance	MaxGrpSize	Type	Season
1	Arethusa Falls	Harts Location	NH	5	10	Hiking	Summer
2	Mt Ascutney - North Peak	Weathersfield	VT	5	6	Hiking	Late Spring
3	Mt Ascutney - West Peak	Weathersfield	VT	6	10	Hiking	Early Fall
4	Bradbury Mountain Ride	Lewiston-Auburn	ME	25	8	Biking	Early Fall
5	Baldpate Mountain	North Newry	ME	6	10	Hiking	Late Spring
6	Blueberry Mountain	Batchelders Grant	ME	8	8	Hiking	Early Fall
7	Bloomfield - Maidstone	Bloomfield	CT	10	6	Paddling	Late Spring
8	Black Pond	Lincoln	NH	8	12	Hiking	Summer
9	Big Rock Cave	Tamworth	NH	6	10	Hiking	Summer
10	Mt. Cardigan - Firescrew	Orange	NH	7	8	Hiking	Summer
11	Chocorua Lake Tour	Tamworth	NH	12	15	Paddling	Summer
12	Cadillac Mountain Ride	Bar Harbor	ME	8	16	Biking	Early Fall
13	Cadillac Mountain	Bar Harbor	ME	7	8	Hiking	Late Spring
14	Cannon Mtn	Franconia	NH	6	6	Hiking	Early Fall
15	Crawford Path Presidentials Hike	Crawford Notch	NH	16	4	Hiking	Summer
16	Cherry Pond	Whitefield	NH	6	16	Hiking	Spring
17	Huguenot Head Hike	Bar Harbor	ME	5	10	Hiking	Early Fall
18	Low Bald Spot Hike	Pinkam Notch	NH	8	6	Hiking	Early Fall
19	Mason's Farm	North Stratford	CT	12	7	Paddling	Late Spring
20	Lake Mephremagog Tour	Newport	VT	8	15	Paddling	Late Spring
21	Long Pond	Rutland	MA	8	12	Hiking	Summer
22	Long Pond Tour	Greenville	ME	12	10	Paddling	Summer
23	Lower Pond Tour	Poland	ME	8	15	Paddling	Late Spring
24	Mt Adams	Randolph	NH	9	6	Hiking	Summer
25	Mount Battie Ride	Camden	ME	20	8	Biking	Early Fall
26	Mount Cardigan Hike	Cardigan	NH	4	16	Hiking	Late Fall
27	Mt. Chocorua	Albany	NH	6	10	Hiking	Spring
28	Mount Garfield Hike	Woodstock	NH	5	10	Hiking	Early Fall
29	Metacomet-Monadnock Trail Hike	Pelham	MA	10	12	Hiking	Late Spring
30	McLennan Reservation Hike	Tyringham	MA	6	16	Hiking	Summer
31	Missisquoi River - VT	Lowell	VT	12	10	Paddling	Summer
32	Northern Forest Canoe Trail	Stark	NH	15	10	Paddling	Summer
33	Park Loop Ride	Mount Desert Island	ME	27	8	Biking	Late Spring
34	Pontook Reservoir Tour	Dummer	NH	15	14	Paddling	Late Spring
35	Pisgah State Park Ride	Northborough	NH	12	10	Biking	Summer
36	Pondicherry Trail Ride	White Mountains	NH	15	16	Biking	Late Spring
37	Seal Beach Harbor	Bar Harbor	ME	5	16	Hiking	Early Spring
38	Sawyer River Ride	Mount Carrigain	NH	10	18	Biking	Early Fall
39	Welch and Dickey Mountains Hike	Thorton	NH	5	10	Hiking	Summer
40	Wachusett Mountain	Princeton	MA	8	8	Hiking	Early Spring
41	Westfield River Loop	Fort Fairfield	ME	20	10	Biking	Late Spring

FIGURE 1-16: Sample trip data for Colonial Adventure Tours

Introduction to Colonial Adventure Tours Database Case (continued)

Customer

CustomerNum	LastName	FirstName	Address	City	State	PostalCode	Phone
101	Northfold	Liam	9 Old Mill Rd.	Londonderry	NH	03053	603-555-7563
102	Ocean	Arnold	2332 South St. Apt 3	Springfield	MA	01101	413-555-3212
103	Kasuma	Sujata	132 Main St. #1	East Hartford	CT	06108	860-555-0703
104	Goff	Ryan	164A South Bend Rd.	Lowell	MA	01854	781-555-8423
105	McLean	Kyle	345 Lower Ave.	Wolcott	NY	14590	585-555-5321
106	Morontoia	Joseph	156 Scholar St.	Johnston	RI	02919	401-555-4848
107	Marchand	Quinn	76 Cross Rd.	Bath	NH	03740	603-555-0456
108	Rulf	Uschi	32 Sheep Stop St.	Edinboro	PA	16412	814-555-5521
109	Caron	Jean Luc	10 Greenfield St.	Rome	ME	04963	207-555-9643
110	Bers	Martha	65 Granite St.	York	NY	14592	585-555-0111
112	Jones	Laura	373 Highland Ave.	Somerville	MA	02143	857-555-6258
115	Vaccari	Adam	1282 Ocean Walk	Ocean City	NJ	08226	609-555-5231
116	Murakami	Iris	7 Cherry Blossom St.	Weymouth	MA	02188	617-555-6665
119	Chau	Clement	18 Ark Ledge Ln.	Londonderry	VT	05148	802-555-3096
120	Gernowski	Sadie	24 Stump Rd.	Athens	ME	04912	207-555-4507
121	Bretton-Borak	Siam	10 Old Main St.	Cambridge	VT	05444	802-555-3443
122	Hefferson	Orlah	132 South St. Apt 27	Manchester	NH	03101	603-555-3476
123	Barnett	Larry	25 Stag Rd.	Fairfield	CT	06824	860-555-9876
124	Busa	Karen	12 Foster St.	South Windsor	CT	06074	857-555-5532
125	Peterson	Becca	51 Fredrick St.	Albion	NY	14411	585-555-0900
126	Brown	Brianne	154 Central St.	Vernon	CT	06066	860-555-3234

FIGURE 1-17: Sample customer data for Colonial Adventure Tours

Introduction to Colonial Adventure Tours Database Case (continued)

Reservation

ReservationID	TripID	TripDate	NumPersons	TripPrice	OtherFees	CustomerNum
1600001	40	3/26/2016	2	\$55.00	\$0.00	101
1600002	21	6/8/2016	2	\$95.00	\$0.00	101
1600003	28	9/12/2016	1	\$35.00	\$0.00	103
1600004	26	10/16/2016	4	\$45.00	\$15.00	104
1600005	39	6/25/2016	5	\$55.00	\$0.00	105
1600006	32	6/18/2016	1	\$80.00	\$20.00	106
1600007	22	7/9/2016	8	\$75.00	\$10.00	107
1600008	28	9/12/2016	2	\$35.00	\$0.00	108
1600009	38	9/11/2016	2	\$90.00	\$40.00	109
1600010	2	5/14/2016	3	\$25.00	\$0.00	102
1600011	3	9/15/2016	3	\$25.00	\$0.00	102
1600012	1	6/12/2016	4	\$15.00	\$0.00	115
1600013	8	7/9/2016	1	\$20.00	\$5.00	116
1600014	12	10/1/2016	2	\$40.00	\$5.00	119
1600015	10	7/23/2016	1	\$20.00	\$0.00	120
1600016	11	7/23/2016	6	\$75.00	\$15.00	121
1600017	39	6/18/2016	3	\$20.00	\$5.00	122
1600018	38	9/18/2016	4	\$85.00	\$15.00	126
1600019	25	8/29/2016	2	\$110.00	\$25.00	124
1600020	28	8/27/2016	2	\$35.00	\$10.00	124
1600021	32	6/11/2016	3	\$90.00	\$20.00	112
1600022	21	6/8/2016	1	\$95.00	\$25.00	119
1600024	38	9/11/2016	1	\$70.00	\$30.00	121
1600025	38	9/11/2016	2	\$70.00	\$45.00	125
1600026	12	10/1/2016	2	\$40.00	\$0.00	126
1600029	4	9/19/2016	4	\$105.00	\$25.00	120
1600030	15	7/25/2016	6	\$60.00	\$15.00	104

FIGURE 1-18: Sample reservation data for Colonial Adventure Tours

Introduction to Colonial Adventure Tours Database Case (continued)

TripGuides		TripGuides (continued)	
TripID	GuideNum	TripID	GuideNum
1	GZ01	19	DH01
1	RH01	20	SL01
2	AM01	21	AM01
2	SL01	22	UG01
3	SL01	23	DH01
4	BR01	23	SL01
4	GZ01	24	BR01
5	KS01	25	BR01
5	UG01	26	GZ01
6	RH01	27	GZ01
7	SL01	28	BR01
8	BR01	29	DH01
9	BR01	30	AM01
10	GZ01	31	SL01
11	DH01	32	KS01
11	KS01	33	UG01
11	UG01	34	KS01
12	BR01	35	GZ01
13	RH01	36	KS02
14	KS02	37	RH01
15	GZ01	38	KS02
16	KS02	39	BR01
17	RH01	40	DH01
18	KS02	41	BR01

FIGURE 1-19: Table used to relate trips and guides

Introduction to Colonial Adventure Tours Database Case (continued)

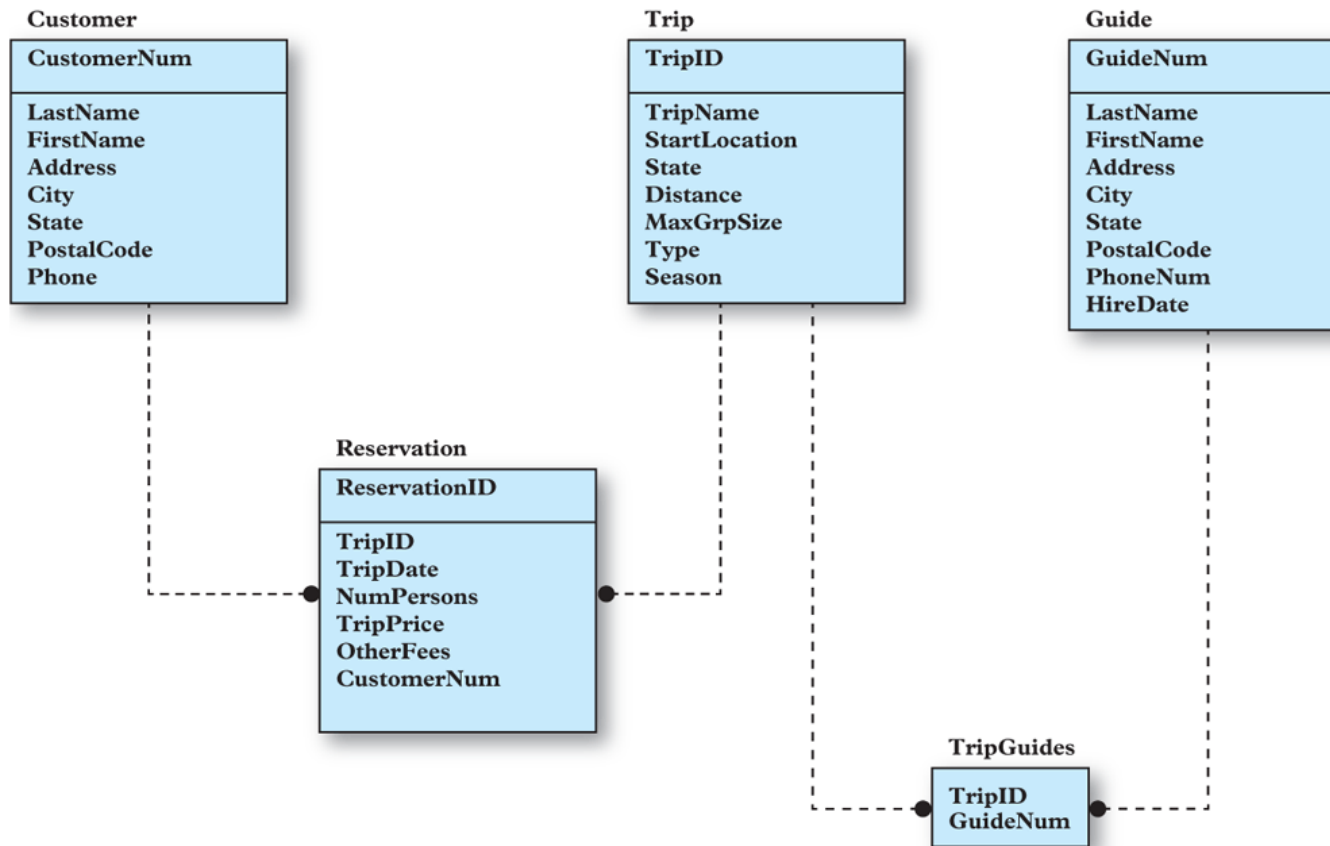


FIGURE 1-20: E-R diagram for the Colonial Adventure Tours database

Introduction to the Solmaris Condominium Group Database Case

- Solmaris Condominium Group manages condominium complexes
 - Located in Florida
 - Two locations: Solmaris Ocean and Solmaris Bayside
 - Maintains common areas and provides maintenance services
- Database used to store data

Introduction to the Solmaris Condominium Group Database Case (continued)

Location

LocationNum	LocationName	Address	City	State	PostalCode
1	Solmaris Ocean	100 Ocean Ave.	Bowton	FL	31313
2	Solmaris Bayside	405 Bayside Blvd.	Glander Bay	FL	31044

FIGURE 1-21: Sample location data for Solmaris Condominium Group

Introduction to the Solmaris Condominium Group Database Case (continued)

Owner

OwnerNum	LastName	FirstName	Address	City	State	PostalCode
AD057	Adney	Bruce and Jean	100 Ocean Ave.	Bowton	FL	31313
AN175	Anderson	Bill	18 Wilcox St.	Brunswick	GA	31522
BL720	Blake	Jack	2672 Condor St.	Mills	SC	29707
EL025	Elend	Bill and Sandy	100 Ocean Ave.	Bowton	FL	31313
FE182	Feenstra	Daniel	7822 Coventry Dr.	Rivard	FL	31062
JU092	Juarez	Maria	892 Oak St.	Kaleva	FL	31521
KE122	Kelly	Alyssa	527 Waters St.	Norton	MI	49441
NO225	Norton	Peter and Caitlin	281 Lakewood Ave.	Lawndale	PA	19111
RO123	Robinson	Mike and Jane	900 Spring Lake Dr.	Springs	MI	49456
SM072	Smeltz	Jim and Cathy	922 Garland Dr.	Lewiston	FL	32765
TR222	Trent	Michael	405 Bayside Blvd.	Glander Bay	FL	31044
WS032	Wilson	Henry and Karen	25 Nichols St.	Lewiston	FL	32765

FIGURE 1-22: Sample owner data for Solmaris Condominium Group

Introduction to the Solmaris Condominium Group Database Case (continued)

CondoUnit

CondoID	LocationNum	UnitNum	SqrFt	Bdrms	Baths	CondoFee	OwnerNum
1	1	102	675	1	1	\$475	AD057
2	1	201	1,030	2	1	\$550	EL025
3	1	306	1,575	3	2	\$625	AN175
4	1	204	1,164	2	2	\$575	BL720
5	1	405	1,575	3	2	\$625	FE182
6	1	401	1,030	2	2	\$550	KE122
7	1	502	745	1	1	\$490	JU092
8	1	503	1,680	3	3	\$670	RO123
9	2	A03	725	1	1	\$190	TR222
10	2	A01	1,084	2	1	\$235	NO225
11	2	B01	1,084	2	2	\$250	SM072
12	2	C01	750	1	1	\$190	AN175
13	2	C02	1,245	2	2	\$250	WS032
14	2	C06	1,540	3	2	\$300	RO123

FIGURE 1-23: Sample data about condo units for Solmaris Condominium Group

Introduction to the Solmaris Condominium Group Database Case (continued)

ServiceCategory

CategoryNum	CategoryDescription
1	Plumbing
2	Heating/Air Conditioning
3	Painting
4	Electrical Systems
5	Carpentry
6	Janitorial

FIGURE 1-24: Sample data about service categories for Solmaris Condominium Group

Introduction to the Solmaris Condominium Group Database Case (continued)

ServiceRequest

Service ID	Condo ID	Category Num	Description	Status	Est Hours	Spent Hours	Next ServiceDate
1	2	1	Back wall in pantry has mold indicating water seepage. Diagnose and repair.	Service rep has verified the problem. Plumbing contractor has been called.	4	2	10/12/2015
2	5	2	Air conditioning doesn't cool.	Service rep has verified problem. Air conditioning contractor has been called.	3	1	10/12/2015
3	4	6	Hardwood floors must be refinished.	Service call has been scheduled.	8	0	10/16/2015
4	1	4	Switches in kitchen and adjoining dining room are reversed.	Open	1	0	10/13/2015
5	2	5	Molding in pantry must be replaced.	Cannot schedule until water leak is corrected.	2	0	
6	14	3	Unit needs to be repainted due to previous tenant damage.	Scheduled	7	0	10/19/2015
7	11	4	Tenant complained that using microwave caused short circuits on two occasions.	Service rep unable to duplicate problem. Tenant to notify condo management if problem recurs.	1	1	
8	9	3	Kitchen must be repainted. Walls discolored due to kitchen fire.	Scheduled	5	0	10/16/2015
9	7	6	Shampoo all carpets.	Open	5	0	10/19/2015
10	9	5	Repair window sills.	Scheduled	4	0	10/20/2015

FIGURE 1-25: Sample data about service requests for Solmaris Condominium Group

Introduction to the Solmaris Condominium Group Database Case (continued)

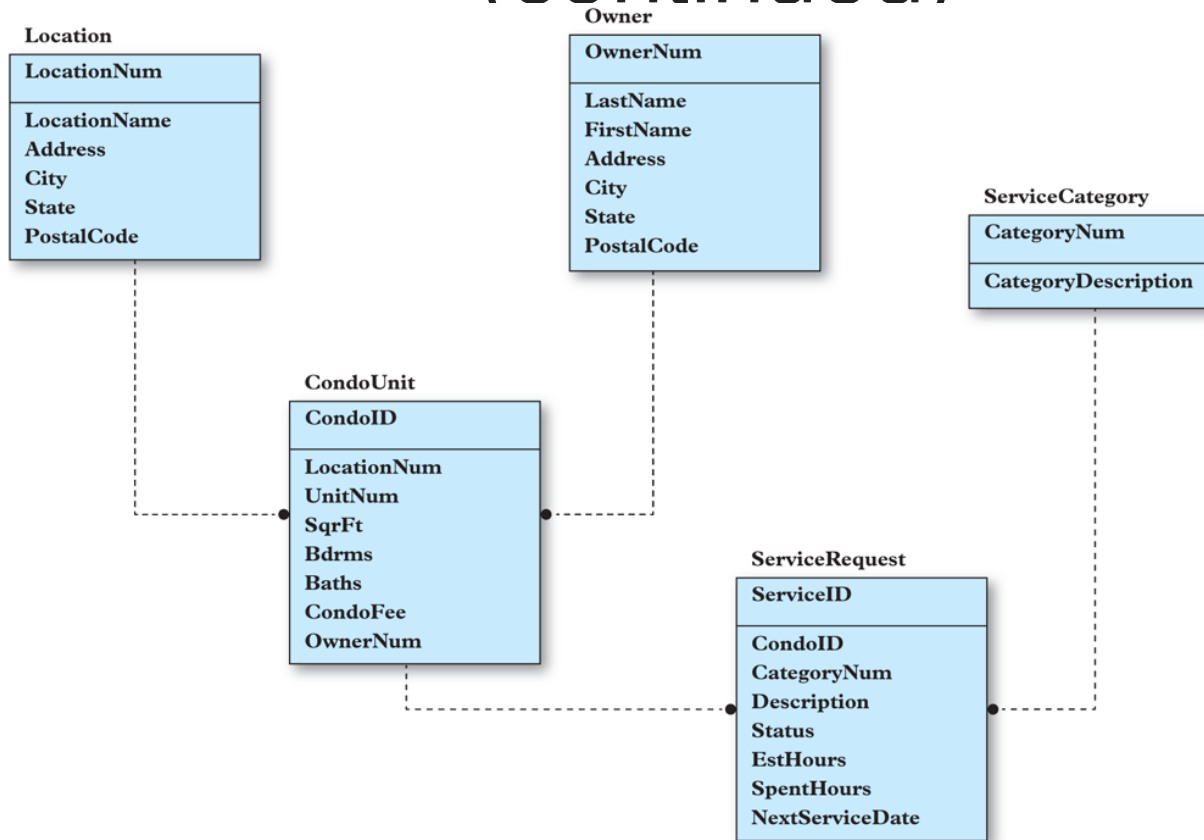


FIGURE 1-26: E-R diagram for the Solmaris Condominium Group database