

Assignment 2



This week “work through” Excel Unit G. To “work through” means reading and performing all hands-on exercises. The exercises give detailed step-by-step instructions with corresponding screen shot figures of the Excel interface tabs, menus, toolbars, dialog boxes, and correct output. You should perform all of these to learn how to complete each skill.

Objectives

Students will have mastered the material in Excel Unit G when they can:

- ❖ Plan a table
- ❖ Create a table
- ❖ Add table data
- ❖ Find and replace table data
- ❖ Delete table data
- ❖ Sort table data
- ❖ Use formulas in a table
- ❖ Print a table

Unit Study Tips

Coordinating table styles with your document

The Table Styles gallery on the Table Tools Design tab has three style categories: Light, Medium, and Dark. Each category has numerous design types; for example, in some of the designs, the header row and total row are darker and the rows alternate colors. The available table designs use the current workbook theme colors so the table coordinates with your existing workbook content. If you select a different workbook theme and color scheme in the Themes group on the Page Layout tab, the Table Styles gallery uses those colors. You can modify gallery styles further by using the options in the Table Style Options group on the Table Tools Design tab; for example, if you select Header Row, the table styles in the gallery will all display distinctive header rows.

Changing table style options

You can modify a table's appearance by using the check boxes in the Table Styles Options group on the Table Tools Design tab. For example, you can turn on or turn off the following options: banding, which creates different formatting for adjacent rows and columns; special formatting for first and last columns; Total Row, which calculates totals for each column; and Header Row, which displays or hides the header row. Use these options to modify a table's appearance either before or after applying a Table Style. For example, if your table has banded rows, you can select the Banded Columns check box to change the table to display with banded columns. Also, you may want to deselect the Header Row check box to hide a table's header row if a table will be included in a presentation. Figure G-5 shows the available table style options. You can also create your own table style by clicking the Table Styles More button, then at the bottom of the Table Styles Gallery, clicking New Table Style. In the New Table Quick Style dialog box, name the style in the Name text box, click a table element, then format selected table elements by clicking Format. You can also set a custom style as the default style for your tables by checking the Set as default table quick style for this document check box. You can click Clear at the bottom of the Table Styles gallery if you want to clear a table style.

Using Find and Select features

You can use the Find feature to navigate to a specific place in a workbook by clicking the Find & Select button in the Editing group, clicking Go To, typing a cell address, then clicking OK. Clicking the Find & Select button also allows you to find comments and conditional formatting in a worksheet by clicking Go to Special. You can use the Go to Special dialog box to select cells that contain different types of formulas, objects, or data validation. Some Go to Special commands also appear on the Find & Select menu. Using this menu, you can also change the mouse pointer shape to the Select Objects pointer so you can quickly select drawing objects when necessary. To return to the standard Excel pointer, press [Esc].

Using structured references

Structured references make it easier to work with formulas that use table data. You can reference all of the table, columns in the table, or specific data. What makes structured references helpful to use in formulas is that they automatically adjust as data ranges change in a table, so you don't need to edit formulas. When you create a table from worksheet data, Excel creates a default table name such as Table1. This references all of the table data but not the header row or any total rows. To refer to a table such as Table1 with its header row, you need to use the reference =Table1[#All]. Excel also names each column of a table which can be referenced in formulas. For example, in Table 1, the formula =Table1[Sales] references the data in the Sales field. Note that you must use the

bracket [] characters around their table formulas and not the parentheses () used in regular Excel worksheet formulas.

Graded Exercises to be Submitted

- Independent Challenge 1, Customers, pages Excel 172-173. Omit the Advanced Challenge Exercise part of the exercise.
- Independent Challenge 2, Store Items, pages Excel 173-174. Note that the formulas in step i should use structured cell references.
- Independent Challenge 3, Accounts, pages Excel 174-175. Omit the Advanced Challenge Exercise part of the exercise.

Turn in each completed exercise to me using the assignment “delivery boxes” on the Moodle course site in the Week 3 section.

For Assignment 3, you will find these 3 “delivery boxes” in the Week 3 section:

- ✓ Customers
- ✓ Store Items
- ✓ Accounts

A solution printout (in PDF format) is provided for each of the above files. Compare your output to the solution printout to gauge correctness. The printout identifies the items that will be checked in your submitted file.

Note that turning in assignment files to be graded by email attachment is not acceptable. Use of the Moodle assignment “delivery boxes” enables recording of grades and feedback on the Moodle course website.

Exercises submitted by midnight Thursday will be graded for feedback purposes by midnight Friday. Errors may be corrected and exercises resubmitted by midnight Saturday for full credit.

These problems are due according to the schedule given in the course syllabus, Independent Challenges 1, 2, and 3 by next Saturday evening. Note that the college requires a 20% penalty be imposed for all work submitted late in online courses.

As always, contact me by email if you have any questions or problems. If you have a question about a specific Excel exercise, you may attach your Excel file to your email. If you wish me to call you, then include your phone number in the email.

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Using Tables

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Excel 2007



Objectives

- Plan a Table
- Create a Table
- Add Table Data
- Find and Replace Table Data
- Delete Table Data

Objectives

- Sort Table Data
- Use Formulas in a Table
- Print a Table

Unit Introduction

- A *table* is an organized collection of rows and columns of similarly structured data in a worksheet



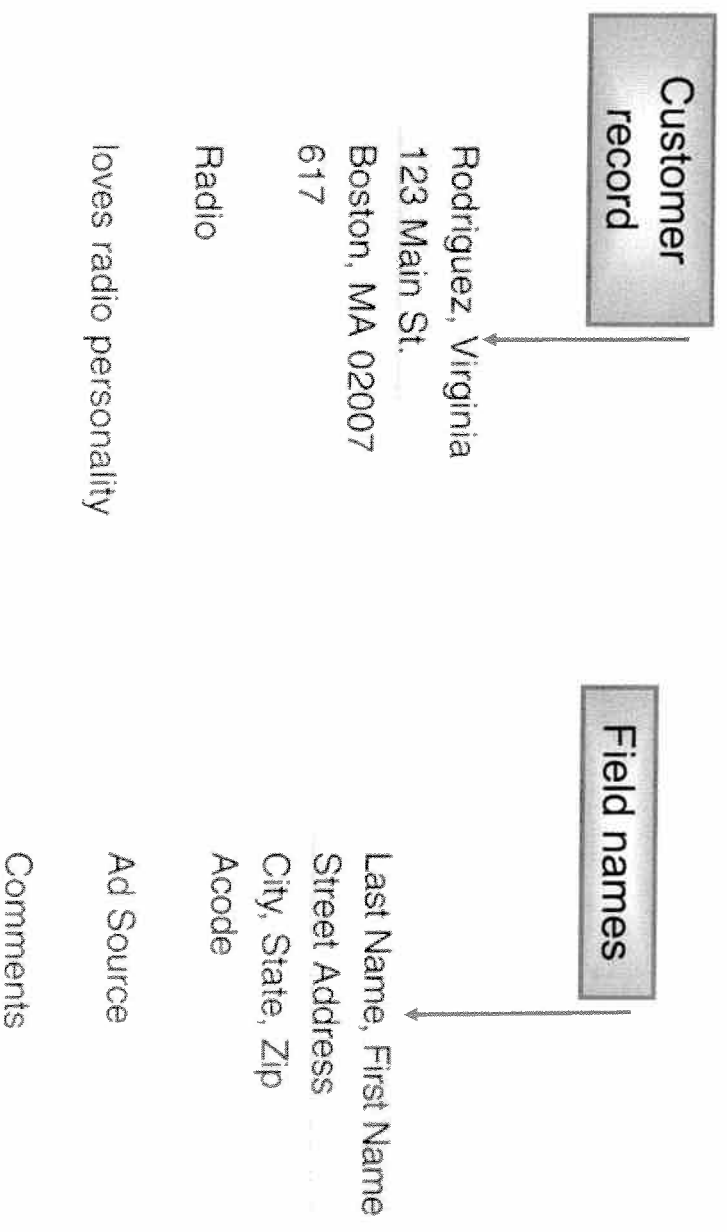
Planning a Table

- Consider what information the table will contain and how you will work with the data now and in the future
 - Tables are organized into records
 - A **record** contains data about an object or person
 - Records are rows in the table and are made up of fields
 - **Fields** are columns in the table and describe a characteristic about the record
 - Each field has a **field name**, or a label

Planning a Table (cont.)

- Table planning guidelines
 - Identify the purpose of the table
 - Plan the structure of the table
 - Document the table design

Planning a Table (cont.)



Planning a Table (cont.)

Guidelines for planning a Table

worksheet structure guidelines	row and column content guidelines
Tables can be created from any contiguous range of cells on your worksheet	Plan and design your Table so that all rows have similar items in the same column
A Table should not have any blank rows or columns	Do not insert extra spaces at the beginning of a cell because that can affect sorting and searching
Data defined by your Table can be used independently of data outside of the Table on the worksheet	Instead of blank rows or columns between your labels and your data, use formatting to make column labels stand out from the data
Data can be organized on a worksheet using multiple Tables to define sets of related data	Use the same format for all cells below the field name in a column

Creating a Table

Field names

	A	B	C	D	E	F	G	H	I
1	Tour	Depart Date	Number of Days	Seat Capacity	Seats Reserved	Price	Air Included	Meals Included	
2	Pacific Odyssey	1/11/2010	14	50	50	3105	Yes	No	
3	Old Japan	1/12/2010	21	47	41	2100	Yes	No	
4	Down Under Exodus	1/18/2010	10	30	28	2800	Yes	Yes	
5									

Records



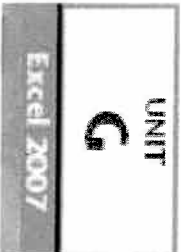
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Creating a Table (cont.)

- **Table styles**
 - Allow you to easily add formatting to your table by using preset formatting combinations that define fill color, borders, and type style and color.

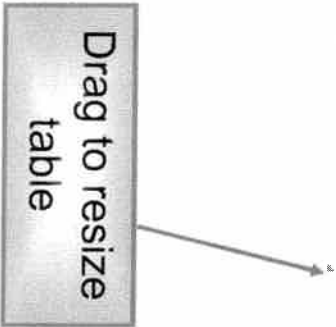
Adding Table Data

- Add records to a table by typing data directly below the last row of the table.
 - Table formatting is extended to the new data.
- You can add rows in any table location.
- You can add new columns to a table.
- Drag the sizing handle in a table's lower-right corner.



Adding Table Data (cont.)

60	Panama Adventure	12/18/2010	10	50	21	\$ 2,304	Yes	Yes
61	Galapagos Adventure	12/20/2010	14	15	1	\$ 3,100	Yes	Yes
62	Galapagos Adventure	12/20/2010	14	15	1	\$ 3,100	Yes	Yes
63	Pacific Odyssey	12/21/2010	14	50	10	\$ 3,105	Yes	No
64	Essential India	12/30/2010	18	51	15	\$ 3,933	Yes	Yes
65	Old Japan	12/31/2010	21	47	4	\$ 2,100	Yes	No
66	Costa Rica Rainforests	1/30/2010	7	20	0	\$ 2,590	Yes	Yes
67								
68								
69								



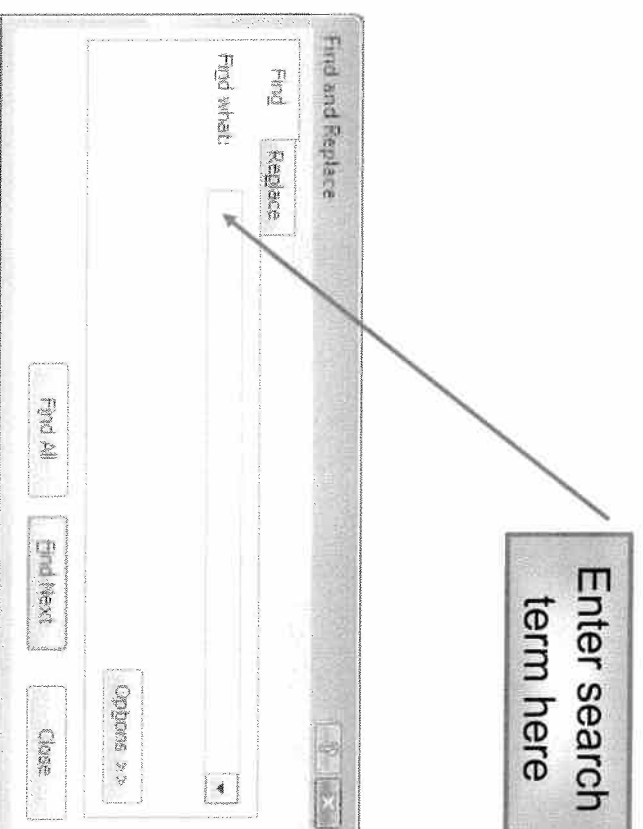


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Finding and Replacing Table Data

- Locate specific records using the Find feature
 - Use the replace feature to locate and replace existing or portions of entries with specified information

Finding and Replacing Table Data (cont.)



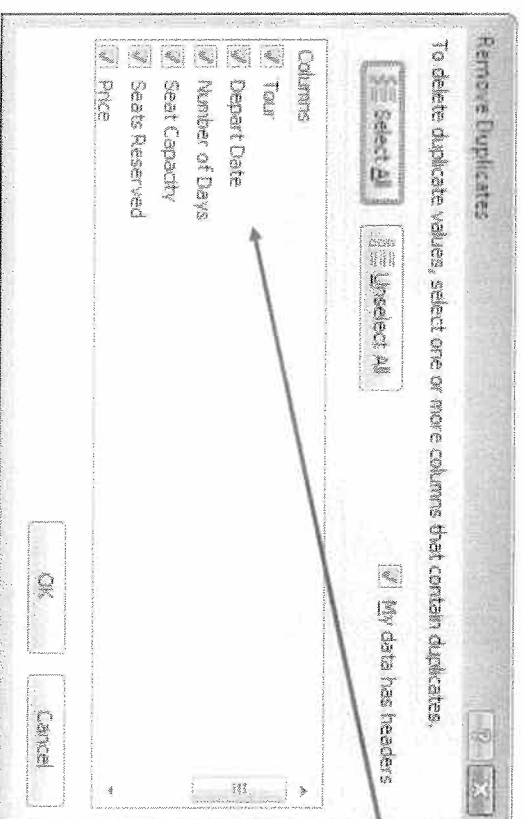
Finding and Replacing Table Data (cont.)

- Using wildcards to fine-tune your search
- You can use special symbols called *wildcards* when defining search criteria in the data form or Replace dialog box
- The question mark (?) wildcard stands for any single character
- The asterisk (*) wildcard stands for any group of characters

Deleting Table Data

- Delete table data using the Delete button
- You can also delete data by dragging the sizing handle at the table's lower right corner.
- You can easily delete duplicate records from a table using the Remove Duplicates button.

Deleting Table Data (cont.)



Click select
columns

Sorting Table Data

- Usually you enter records in the order in which they are received, rather than in alphabetical or numerical order
- Using Excel's sorting feature, you can rearrange the order of records
- Sort entire Tables or portions of Tables
- Ascending or descending sorts

Sorting Table Data (cont.)

Sorted in
ascending
order by
Depart Date

1		B	C	D	E	F	G	H	I
2	Pacific Odyssey	3/11/2010	14	50	50	\$ 3,105	Yes	No	
3	Down Under Exodus	1/18/2010	10	30	28	\$ 1,300	Yes	Yes	
4	Essential India	1/20/2010	18	51	40	\$ 3,353	Yes	Yes	
5	Costa Rica Rainforests	1/30/2010	7	20	0	\$ 2,590	Yes	Yes	
6	Nepal Trekking	1/31/2010	14	18	0	\$ 4,200	Yes	Yes	
7	Amazing Amazon	2/23/2010	14	43	38	\$ 2,877	No	No	
8	Coasting in France	2/28/2010	7	18	15	\$ 2,822	Yes	No	
9	Peaks of the Orient	3/12/2010	14	50	15	\$ 3,490	Yes	No	
10	Silk Road Travels	3/18/2010	18	25	19	\$ 2,190	Yes	Yes	
11	Costa Rica Rainforests	3/20/2010	7	20	20	\$ 2,590	Yes	Yes	
12	Green Adventures in Ecuador	3/23/2010	18	25	22	\$ 2,450	No	No	
13	African National Parks	4/7/2010	30	12	10	\$ 4,870	Yes	Yes	
14	Experience Cambodia	4/10/2010	12	47	21	\$ 2,908	Yes	No	
15	Old Japan	4/14/2010	21	47	30	\$ 2,100	Yes	No	
16	Down Under Exodus	4/18/2010	10	30	20	\$ 2,000	Yes	Yes	
17	Essential India	4/20/2010	18	51	31	\$ 3,353	Yes	Yes	
18	Amazing Amazon	4/23/2010	14	43	30	\$ 2,877	No	No	
19	Catalonia Adventure	5/9/2010	14	51	15	\$ 3,100	Yes	No	
20	Treasures of Ethiopia	5/18/2010	10	41	11	\$ 3,280	Yes	Yes	
21	Monasteries of Bulgaria	5/20/2010	7	19	10	\$ 2,103	Yes	No	
22	Coasting in Croatia	5/23/2010	7	12	10	\$ 2,110	No	No	
23	Magnificent Montenegro	5/27/2010	10	48	4	\$ 1,590	No	No	
24	Catalonia Adventure	6/5/2010	18	51	15	\$ 3,100	Yes	No	
25	Nepal Trekking	6/9/2010	14	18	18	\$ 4,200	Yes	Yes	

Sort order options

option	alphabetic	numeric	date	alphanumeric
Ascending	A, B, C	7, 8, 9	1/1, 2/1, 3/1	12A, 99B, 0X8, 0T7
Descending	C, B, A	9, 8, 7	3/1, 2/1, 1/1	0T7, 0X8, 99B, 12A

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Sorting Table Data (cont.)

- Specifying a custom sort order
 - You can identify a custom sort order for the field selected in the Sort by box
 - Commonly use custom sort orders are days of the week, and months



Using Formulas in a Table

- After you enter a single formula into a table cell, the **calculated columns** feature fills in the remaining cells with the formula's results.
- The **structured reference** feature allows your formulas to refer to table columns by names that are automatically generated when you create the table.



Using Formulas in a Table (cont.)

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	A	B	C	D	E	F	G	H	I
1		Default	Reserved - Seat	Seat	Reserved	Price	All	Notes	Notes
2	African National Parks	4/7/2010	30	12	10	\$ 4,870	Yes	Yes	
3	African National Parks	10/27/2010	30	12	8	\$ 4,870	Yes	Yes	
4	Amazing Amazon	2/23/2010	14	43	38	\$ 2,877	No	No	
5	Amazing Amazon	4/23/2010	14	43	30	\$ 2,877	No	No	
6	Amazing Amazon	8/23/2010	14	43	18	\$ 2,877	No	No	
7	Catalonia Adventure	5/9/2010	14	51	30	\$ 3,100	Yes	No	
8	Catalonia Adventure	6/9/2010	14	51	15	\$ 3,100	Yes	No	
9	Catalonia Adventure	10/9/2010	14	51	11	\$ 3,100	Yes	No	
10	Cooking in Croatia	5/23/2010	7	12	10	\$ 2,110	No	No	
11	Cooking in Croatia	9/23/2010	7	12	7	\$ 2,110	No	No	
12	Cooking in France	2/28/2010	7	18	15	\$ 2,822	Yes	No	

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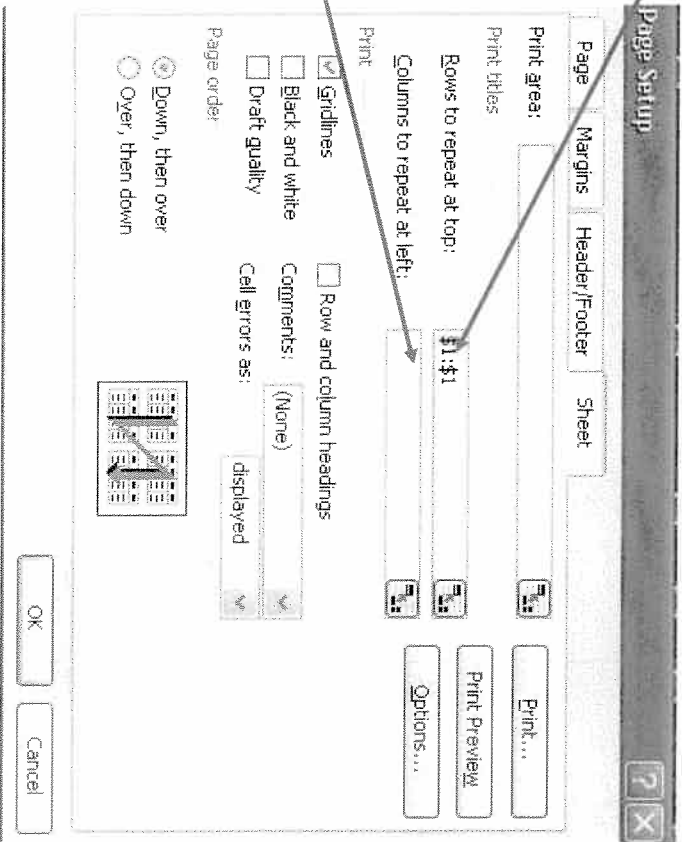
Table Field
Names

Printing a Table

- Tables can often have more rows than can fit on a printed page
 - Define the first row of the Table which contains the field names as the print title
 - The **print title** prints at the top of every page
 - Use headers and footers to identify other descriptive text

Indicates that
row 1 will
appear at the
top of each
printed page

Indicates
which
columns will
appear at the
left of each
printed page



Printing a Table (cont.)

- Setting print area
 - Print only part of a worksheet.
 - Prints when you use the Quick Print feature.
 - To set a print area, click the Page Layout tab, click the Print Area button in the Page Setup group, then click Set Print Area.

Summary

- Create a Table to organize worksheet data
- Find and replace data in a Table
- Delete table data
- Sort a Table
- Use calculated columns
- Use structured referencing

Customer Survey Data

Last Name	First Name	Street Address	City	State	Zip	Area Code	Ad Source	Comments
Smith	Carolyn	921 Lopez St.	San Diego	CA	92104	619	Newspaper	likes ad prose
Chelly	Yvonne	900 Sola St.	San Diego	CA	92106	619	Newspaper	likes description of products
Chavez	Jane	11 Northern St.	San Diego	CA	The list is sorted by State in A to Z order		WWIN TV	A centered header reads Customer Survey Data
Hesh	Gayle	1192 Dome St.	San Diego	CA			Newspaper	
Wong	Sandy	2120 Central St.	San Francisco	CA			Newspaper	not eye
Majors	Kathy	1 Sprina St.	San Luis	CA	94018	510	Radio	loved ad voice
Jacobs	Martha	No identical records appear	San Francisco	CA	94107	415	Newspaper	no comments
Kim	Kathy		San Francisco	CA			Newspaper	favorite with friends
Kim	Janie		San Francisco	CA			Newspaper	great ads
Owen	Scott	72 Yankee St.	Brookfield	CT	A table has been created using Table Style Light 20 and the columns are adjusted to display the data			
Graham	Shelley	989 26th St.	Chicago	IL			Newspaper	no comments
Roberts	Bob	56 Water St.	Chicago	IL	60614	312	Newspaper	great store description
Duran	Maria	The record for Mary Ryder is deleted.	Chicago	IL	60614	773	Subway	liked photo
Miller	Hope		Chicago	IL	60614	773	Newspaper	no comments
Roberts	Bob		Chicago	IL	60618		Newspaper	likes ad in local newspaper
Wallace	Salvatore	100 Westside St.	Chicago	IL	60620	Table width is scaled to 1 page and the height to 2 pages		
Hogan	Andy	32 William St.	Concord	MA	01742		Newspaper	likes graphics
Spencer	Robin	293 Serenity Dr.	Concord	MA	01742		Newspaper	ad too small
Paxton	Gail	100 Main St.	Woburn	MA	01801	508	Newspaper	loved radio personality
Ichikawa	Pam	232 Shore Rd.	Boston	MA	01801	617	Newspaper	no comments
Bally	Jeanne	34 Kensington St.	Boston	MA	01810	617	Newspaper	told friends
Innis	Joe	17 Ferncroft Rd.	Danvers	MA	All instances of TV are replaced with WWIN TV			
Lally	James	15 York St.	Danvers	MA			Radio	no comments
Stevens	Crystal	14 Waterford St.	Salem	MA			Radio	best on tv
Frei	Carol	123 Elm St.	Salem	MA	01970		Newspaper	does not like radio personality
Johnson	Greg	134 Walnut St.	Salem	MA	01970		Newspaper	no comments
Rodriguez	Virginia	123 Main St.	Boston	MA	02007	617	Radio	no comments
Kelly	Shawn	22 Kendall St.	Cambridge	MA	02138	617	Radio	loves radio personality
Kooper	Peter	671 Main St.	Cambridge	MA	02138	617	WWIN TV	found under "cafés"
Masters	Latrice	88 Las Puntas Rd.	Boston	MA	02205	617	Yellow Pages	no comments
Julio	Manuel	544 Cameo St.	Belmont	MA	02483	617	Newspaper	likes clear store location
Williams	Tasha	1 Spring St.	Reading	MA	03882	413	Newspaper	no comments
Lee	Ginny	3 Way St.	Kansas City	MO	64102	816	Radio	likes font we use
Lopez	Luis	1212 City St.	Kansas City	MO	64105	816	Radio	intrigued by announcer
Nelson	Michael	229 Rally Rd.	Kansas City	MO	64105	816	WWIN TV	liked characters
							Yellow Pages	found under "Compact Discs"

Your Name

Customer Survey Data

Last Name	First Name	Street Address	City	State	Zip	Area Code	Ad Source	Comments
Branca	Keith	14 Bailey Rd.	Santa Fe	NM	87505	505	Newspaper	no comments
Khalsa	Pip	1100 Vista St.	Santa Fe	NM	87505	505	Newspaper	found in Entertainment section
Montano	Nicole	443 W. 73rd St.	New York	NY	10024	212	Newspaper	likes graphics
Dickenson	Tonia	883 E. 34th St.	New York	NY	10044	212	Yellow Pages	no comments
Alderson	Bert	12 Shore St.	White Plains	NY	10288	914	Newspaper	told friends to read
Black	John	11 River Rd.	Larchmont	NY	10329	914	Newspaper	ad too small
Green	Latrell	343 3rd St.	Brooklyn	NY	11201	718	WWJN TV	likes audio track
Stephens	Elizabeth	214 Adams St.	Brooklyn	NY	11201	718	Newspaper	thought ad not descriptive enough
Dewey	Evan	823 Northside Rd.	Houston	TX	77092	281	Newspaper	great ads
Gonzales	Fred	5532 West St.	Houston	TX	77098	281	Yellow Pages	finds ad inviting
Splint	K. C.	221 V	on	TX	77098	281	Radio	disliked ad voice
Whitney	John	67 Ma	on	TX	77098	281	Radio	finds ad inviting
Janis	Steve	Two records are added: Cathy Ross and Steve Janis			98001	206	Newspaper	found in restaurant section
Ross	Cathy	92 Ar	Seattle	WA	98101	206	Yellow Pages	found ad informative
Dobbins	Camilla	486 Intel St.	Seattle	WA	98102	206	WWJN TV	likes ad
Ballard	Allen	3 West Rd.	Seattle	WA	98103	206	Newspaper	nice images
Ranson	Mary	17 Wally Rd.	Seattle	WA	98103	206	Newspaper	finds ad inviting

Your Name

Customer Last	Customer First	Item	Quantity	Cost	Subtotal	Total	Tax
Flacka	Connie	DVD	20	\$ 6.00	\$ 120.00	\$ 140.00	0.125
Yank	Jane	DVD	25	\$ 0.75	\$ 18.75	\$ 21.00	
Smith	Elvis	Journal	40	\$ 1.75	\$ 70.00	\$ 79.00	
Donovan	Connie	Map	20	\$ 2.00	\$ 40.00	\$ 45.00	
Johnson	Joan	Map	10	\$ 2.00	\$ 20.00	\$ 22.50	
Warner	Chris	Map	20	\$ 2.00	\$ 40.00	\$ 45.00	
Clark	Clay	Travel books	30	\$ 1.50	\$ 45.00	\$ 50.63	
Greer	Fred	Travel books	30	\$ 1.50	\$ 45.00	\$ 50.63	
Arnold	Frank	Travel books	30	\$ 1.50	\$ 45.00	\$ 50.63	

A table using the data in the range A1:E9 has been created

The table is sorted in ascending order by Item

Cell F1 reads Subtotal, and cell G1 reads Total

The Cost, Subtotal, and Total columns are formatted for Accounting with two decimal places and the \$ symbol

Cell G2 contains a formula to calculate the total including tax

Cell H1 reads Tax, and .125 has been entered

Field names are entered from Table G-6

Accounts

Project	Deadline	Code	Budget	Expenses	Contact	Balance	
Graham	7/10/2010	V13	\$ 390,000	\$ 400,000	Charlie Katter	\$ (10,000)	The text Balance has been added to cell G1
Kelly	2/1/2010	AA1	\$ 100,000	\$ 30,000	Connie Blake	\$ 70,000	Cell G2 contains a formula that subtracts Expenses from Budget
Karim	4/30/2010	C43	\$ 200,000	\$ 170,000	Connie Blake	\$ 30,000	
Franklin	2/15/2010	AB2	\$ 200,000	\$ 150,000	Connie Blake	\$ 50,000	
Lannou	10/10/2010	C21	\$ 450,000	\$ 400,000	Connie Blake	\$ 50,000	
Vincent	1/15/2010	C43	\$ 100,000	\$ 150,000	Jane Jacobson	\$ (50,000)	All Jane Smith data has been replaced with Jane Jacobson, and the columns have been adjusted to fit
Landry	11/15/2010	V53	\$ 200,000	\$ 210,000	Jane Jacobson	\$ (10,000)	
Kaplan	9/30/2010	V51	\$ 300,000	\$ 320,000	Jane Jacobson	\$ (20,000)	
Mason	6/1/2010	AA5	\$ 500,000	\$ 430,210	Jane Jacobson	\$ 69,790	
Jaffrey	3/15/2010	A3A	\$ 200,000	\$ 210,000	Kate Jeung	\$ (10,000)	
Melony	12/15/2010	B12	\$ 810,000	\$ 700,000	Nelly Ali	\$ 110,000	Budget, Expense, and Balance have been formatted using the Accounting format with no decimal places

The record Franklin is added with the following data: deadline of 2/15/2010, code of AB2, budget of 200000, expenses of 150000, contact of Connie Blake

The Budget field is sorted using Smallest to Largest order (second sort level)

Table Style Light 3 is applied to Accounts

The Contact field is sorted using A to Z order (first sort level)

The text Balance has been added to cell G1

Cell G2 contains a formula that subtracts Expenses from Budget

All Jane Smith data has been replaced with Jane Jacobson, and the columns have been adjusted to fit

Budget, Expense, and Balance have been formatted using the Accounting format with no decimal places

▼ SKILLS REVIEW (CONTINUED)

4. Delete table data.

- Go to cell A1.
- Delete the record for **Sally Leone**.
- Use the Remove Duplicates button to confirm that the table does not have any duplicate records.
- Delete the **Employee #** column from the table, then delete its column header.
- Save the file.

5. Sort table data.

- Sort the table by years employed in largest to smallest order.
- Sort the table by last name in A to Z order.
- Sort the table first by Full/Part Time in A to Z order and then by last name in A to Z order.
- Check the table to make sure the records appear in the correct order.
- Save the file.

6. Use formulas in a table.

- In cell G2, enter the formula that calculates an employee's vacation time; base the formula on the company policy that employees working at the company less than three years have two weeks of vacation. At three years of employment and longer, an employee has three weeks of vacation time. Use the table's field names where appropriate. (Hint: The formula is: **=IF([Years Employed]<3,2,3)**)
- Check the table to make sure the formula filled into the cells in column G and that the correct vacation time is calculated for all cells in the column.
- Add a Total Row and verify the accuracy of the total number of vacation weeks.
- Change the function in the Total Row to display the average number of vacation weeks.
- Compare your table to Figure G-21, then save the workbook.

FIGURE G-21

	A1	Last Name					
	A	B	C	D	E	F	G
1	Last Name	First Name	Years Employed	Position	Full/Part Time	Training Completed	Weeks Vacation
2	Atkins	Stacy	2	Movie Sales	F	N	2
3	Guan	Joyce	1	Book Sales	F	N	2
4	Khenan	Jay	1	Book Sales	F	Y	2
5	Worthen	Hank	5	Book Sales	F	Y	3
6	Mello	Donato	3	Movie Sales	P	N	3
7	Rabin	Mimi	1	Movie Sales	P	Y	2
8	Total						2.333333333
9							

7. Print a table.

- Add a header that reads **Employees** in the center section, then format the header in bold with a font size of 16.
- Add column A as a print title that repeats at the left of each printed page.
- Preview your table to check that the last names appear on both pages.
- Change the page orientation to landscape, save the workbook, then print the Staff sheet.
- Close the workbook, then exit Excel.

▼ INDEPENDENT CHALLENGE 1

You are the marketing director for a national sporting goods store. Your assistants have created an Excel worksheet with customer data including the results of an advertising survey. You will create a table using the customer data and analyze the survey results to help focus the company's advertising expenses in the most successful areas.

- Start Excel, open the file EX G-3.xlsx from the drive and folder where you store your Data Files, then save it as **Customers**.
- Create a table from the worksheet data and apply Table Style Light 20. Widen the columns as necessary to display the table data.

▼ INDEPENDENT CHALLENGE 1 (CONTINUED)

c. Use the data below to add the two records shown in Table G-5 to the table:

TABLE G-5

Last Name	First Name	Street Address	City	State	Zip	Area Code	Ad Source	Comments
Ross	Cathy	92 Arrow St.	Seattle	WA	98101	206	Yellow Pages	found ad informative
Janis	Steve	402 9th St.	Seattle	WA	98001	206	Newspaper	found in restaurant section

d. Find, then delete the record for Mary Ryder.

e. Click cell A1 and replace all instances of TV with WWIN TV, making sure the case is properly matched. Compare your table to Figure G-22.

f. Remove duplicate records where all fields are identical.

g. Sort the list by Last Name in A to Z order.

h. Sort the list again by Area Code in Smallest to Largest order.

i. Sort the table first by State in A to Z order, then within the state, by Zip in Smallest to Largest order.

j. Scale the table width to 1 page and the height to 2 pages.

k. Enter your name in the center section of the worksheet footer.

l. Add a centered header that reads **Customer Survey Data** in bold with a font size of 16.

m. Add print titles to repeat the first row at the top of printed pages.

n. Save the workbook, preview it, then print the table on two pages.

FIGURE G-22

A	B	C	D	E	F	G	H	I
Last Name	First Name	Street Address	City	State	Zip	Area Code	Ad Source	Comments
2	Kim	Kathy	19 North St.	San Francisco	CA	94177	415	Newspaper
3	Jacobs	Martha	Hamilton Park St	San Francisco	CA	94107	415	Newspaper
4	Majors	Kathy	1 Spring St.	San Luis	CA	94018	510	Radio
5	Wong	Sandy	2120 Central St	San Francisco	CA	93772	415	Newspaper
6	Hesh	Gayle	1192 Dome St.	San Diego	CA	93303	619	Newspaper
7	Chavez	Jane	11 Northern St	San Diego	CA	92208	619	WWIN TV
8	Chelly	Yvonne	900 Sola St.	San Diego	CA	92106	619	Newspaper
9	Smith	Carolyn	921 Lopez St	San Diego	CA	92104	619	Newspaper
10	Owen	Scott	72 Yankee St.	Brookfield	CT	06830	203	Newspaper
11	Wallace	Salvatore	100 Westside St	Chicago	IL	60620	312	Newspaper
12	Roberts	Bob	56 Water St.	Chicago	IL	60618	773	Newspaper
13	Miller	Hope	111 Stratton St	Chicago	IL	60614	773	Newspaper
14	Duran	Mana	Gavin St.	Chicago	IL	60614	773	Subway
15	Roberts	Bob	56 Water St	Chicago	IL	60614	312	Newspaper
16	Graham	Shelley	989 26th St.	Chicago	IL	60611	773	Yellow Pages
17	Kim	Janie	9 First St	San Francisco	CA	94177	415	Newspaper
18	Kim	Janie	9 First St	San Francisco	CA	94177	415	Newspaper
19	Williams	Tasha	1 Spring St	Reading	MA	03882	617	Newspaper
20	Julio	Manuel	544 Cameo St.	Belmont	MA	02483	617	Newspaper
21	Masters	Latrice	88 Las Puntas Rd.	Boston	MA	02205	617	Yellow Pages
22	Kooper	Peter	671 Main St.	Cambridge	MA	02138	617	WWIN TV
23	Kelly	Shawn	22 Kendall St	Cambridge	MA	02138	617	Yellow Pages
24	Rodriguez	Virginia	123 Main St.	Boston	MA	02007	617	Radio
25	Fri	Carol	123 Elm St.	Salem	MA	01970	978	Newspaper
26	Stevens	Crystal	14 Waterford St.	Salem	MA	01970	508	Radio
27	Ichikawa	Pam	232 Shore Rd	Boston	MA	01801	617	Newspaper
28	Paxton	Gail	100 Main St.	Woburn	MA	01801	508	Newspaper
29	Spencer	Robin	293 Serenity Dr	Concord	MA	01742	508	Radio
30	Lopez	Luis	1212 City St	Kansas City	MO	64105	816	WWIN TV
31	Nelson	Michael	229 Rally Rd	Kansas City	MO	64105	816	Yellow Pages
32	Lee	Ginny	3 Way St.	Kansas City	MO	64102	816	Radio

Advanced Challenge Exercise



- Create a print area that prints only the first six columns of the table.
- Print the print area.
- Clear the print area

o. Save the workbook, close the workbook, then exit Excel.

▼ INDEPENDENT CHALLENGE 2

You own Around the World, a travel bookstore located in New Zealand. The store sells travel-related items such as maps, travel books, journals, and DVDs of travel destinations. Your customers are primarily tour guides who purchase items in quantities of ten or more for their tour customers. You decide to plan and build a table of sales information with eight records using the items sold.

a. Prepare a plan for a table that states your goal, outlines the data you need, and identifies the table elements.

b. Sketch a sample table on a piece of paper, indicating how the table should be built. Create a table documenting the table design including the field names, type of data, and description of the data.

▼ INDEPENDENT CHALLENGE 2 (CONTINUED)

- Start Excel, create a new workbook, then save it as **Store Items** in the drive and folder where you store your Data Files. Enter the field names from Table G-6 in the designated cells.
- Enter eight data records using your own data.
- Create a table using the data in the range A1:E9. Adjust the column widths as necessary.
- Apply the Table Style Light 4 to the table.
- Add the following fields to the table: **Subtotal** in cell F1, and **Total** in cell G1.
- Add the label **Tax** in cell H1 and click the first option in the AutoCorrect Options to undo the table AutoExpansion. Enter **.125** in cell I1 (the 12.5% Goods and Services tax).
- Enter formulas to calculate the subtotal (Quantity*Cost) in cell F2 and the total (including tax) in cell G2. Check that the formulas were filled down both of the columns. (*Hint: Remember to use an absolute reference to the tax rate cell.*)
- Format the Cost, Subtotal, and Total columns using the Accounting number format with two decimal places and the symbol \$ English (New Zealand). Adjust the column widths as necessary.
- Add a new record to your table in row 10. Add another record above row 4.
- Sort the table in ascending order by Item.
- Enter your name in the worksheet footer, then save the workbook.
- Preview the worksheet, use the Scale to Fit width option to scale the worksheet to print on one page.
- Print the worksheet, close the workbook, then exit Excel.

TABLE G-6

Cell	Field name
A1	Customer Last
B1	Customer First
C1	Item
D1	Quantity
E1	Cost

▼ INDEPENDENT CHALLENGE 3

You are the project manager at a local advertising firm. You are managing your accounts using an Excel worksheet and have decided that a table will provide additional features to help you keep track of the accounts. You will use the table sorting features and table formulas to analyze your account data.

- Start Excel, open the file EX G-4.xlsx from the drive and folder where you store your Data Files, then save it as **Accounts**.
- Create a table with the worksheet data and apply Table Style Light 3.
- Sort the table on the Budget field using the Smallest to Largest order. Compare your table to Figure G-23.
- Sort the table using two fields, by Contact in A to Z order, then by Budget in Smallest to Largest order.
- Add the new field label **Balance** in cell G1 and adjust the column width as necessary. Format the Budget, Expenses, and Balance columns using the Accounting format with no decimal places.
- Enter a formula in cell G2 that uses structured references to table fields to calculate the balance on an account as the Budget minus the Expenses.
- Add a new record for a project named **Franklin** with a deadline of **2/15/2010**, a code of **AB2**, a budget of **200000**, expenses of **150000**, and a contact of **Connie Blake**.
- Verify that the formula accurately calculated the balance for the new record.
- Replace all of the Jane Smith data with **Jane Jacobson** and adjust the column width as necessary.
- Enter your name in the center section of the worksheet footer, add a center section header of **Accounts** using formatting of your choice, then save the workbook.

FIGURE G-23

	A	B	C	D	E	F	G
1	Project	Deadline	Code	Budget	Expenses	Contact	
2	Kelly	2/1/2010	AA1	100000	30000	Connie Blake	
3	Vincent	1/15/2010	C43	100000	150000	Jane Smith	
4	Jaffrey	3/15/2010	A3A	200000	210000	Kate Jeung	
5	Karim	4/30/2010	C43	200000	170000	Connie Blake	
6	Landry	11/15/2010	V53	200000	210000	Jane Smith	
7	Kaplan	9/30/2010	V51	300000	320000	Jane Smith	
8	Graham	7/10/2010	V13	390000	400000	Charlie Katter	
9	Lannou	10/10/2010	C21	450000	400000	Connie Blake	
10	Mason	6/1/2010	AA5	500000	430210	Jane Smith	
11	Melon	12/15/2010	B12	810000	700000	Nelly Atli	
12							