SHELLY CASHMAN SERIES® COURSE TECHNOLOGY CENGAGE Learning

EXCEL 2010
CHAPTER 3: LAB 1

MED SUPPLY ONLINE WAREHOUSE SIX-YEAR FINANCIAL PROJECTION

SKILLS

- Save a workbook with a new name
- Apply a theme to a worksheet
- Select all cells in a worksheet
- Apply bold
- Enter text in cells
- Change the font
- Change font size
- Create a formula using the NOW function
- Apply the date number format
- Modify column width
- Modify row height
- Fill a range of cells with a series
- Center cell contents
- Italicize text
- Rotate text
- Use the Format Painter
- Add borders
- Indent cell contents
- Enter numbers with format symbols
- Apply underline
- Apply a custom number format
- Enter formulas
- Use absolute cell references
- Fill adjacent cells with formulas
- Copy cell contents
- Create a formula using the SUM function
- Create a formula using the IF function
- Create a sparkline for a range of numeric cells
- Change fill color
- Select non-adjacent cells
- Create a column chart
- Move a chart to a new worksheet
- Edit a chart
- Insert a chart title
- Format a chart
- Rename worksheets
- Reorder worksheets
- Format worksheet tabs
- Use Goal Seek

PROJECT OVERVIEW

Your supervisor in the Finance department at Med Supply Online Warehouse has asked you to create a worksheet that will project the annual gross margin, expenses, total expenses, operating income, income taxes, and net income for the next six years based on a table of assumptions he has provided you with. In Part 1 of this project, you will create the worksheet. In Part 2, you will create a chart to present the data. And in Part 3, you will use Goal Seek to analyze a sales scenario.

INSTRUCTIONS

1. Open a new Excel file. Save as **Med Supply Online Warehouse**.
2. Switch to the Sheet1 worksheet. Apply the **Civic** theme to the workbook by using the Themes button (Page Layout tab | Themes group). Bold the entire Sheet1 worksheet by selecting the entire worksheet and using the Bold button (Home tab | Font group).
3. In the Sheet1 worksheet, enter the worksheet title **Med Supply Online Warehouse** in cell A1 and the subtitle **Six-Year Financial Projection** in cell A2. Format the worksheet title in cell A1 to **36**-point **Tahoma** font. Format the worksheet subtitle in cell A2 to **20**-point **Verdana** font. Enter the system date in cell G2 using the **NOW** function. Format the date using the
14-Mar-12 date format.
4. Change the following column widths: A = **25.00** characters; B through H = **15.00** characters. Change the heights of rows 7, 15, 17, 19, and 22 to **18.00** points. Change the height of row 16 to **42.00** points.
5. Enter the six column titles **Year 1** through **Year 6** in the range B3:G3. (Hint: You can enter Year 1 in cell B3 and then drag cell B3's fill handle through the range C3:G3.) Format cell B3 as follows: (a) increase the font size to **14**; (b) center and italicize; and (c) rotate the text to an angle of **-45°**. Apply the same formatting to the range C3:G3. (Hint: You can use the Format Painter button.)
6. Enter the row titles listed in Table 1 in the range A4:A19.

TABLE 1 Row Titles

Cell	Title	Cell	Title
A4	Sales	A12	Shipping
A5	Cost of Goods	A13	Supplies
A6	Gross Margin	A14	Web Services
A7	Expenses	A15	Total Expenses
A8	Advertising	A17	Operating Income
A9	Maintenance	A18	Income Tax
A10	Rent	A19	Net Income
A11	Salaries		

7. Change the font in cells A7, A15, A17, and A19 to **14**-point **Verdana**. Apply the **Thick Bottom Border** to the ranges B3:G3 and B5:G5. Use the **Increase Indent** button (Home tab | Alignment group) to increase the indent one level for the row titles in cell A5, the range A8:A14, and cell A18.
8. Enter the table title **Assumptions** in cell A22. Enter the assumptions in Table 2 in the range A23:B27. (*Hint*: Type dollar signs, commas, and percent symbols as appropriate when entering the numbers. Do not apply number formats.) Change the font size of the table title in cell A22 to **14** point **Verdana** and underline it.

TABLE 2 Med Supply Online Warehouse Financial Projection Assumptions

Units Sold in Prior Year	1,589,712
Unit Cost	$59.50
Annual Sales Growth	25.50%
Annual Price Decrease	2.65%
Margin	38.80%

9. Format the range B4:G19 using the Format Cells dialog box to apply the Number category (on the Number tab) with zero decimal places, use of the 1000 Separator, and negative numbers displayed in black with parentheses.
10. In cell B4, enter the following formula: Year 1 Sales (cell B4) = Units Sold in Prior Year * (Unit Cost / (1 - Margin)) or =B23 * (B24 / (1 – B27))
11. In cell C4, enter the following formula: Year 2 Sales (cell C4) = Year 1 Sales * (1 + Annual Sales Growth) * (1 - Annual Price Decrease) or =B4 * (1 + B25) * (1 - B26). Be sure to use absolute references where appropriate in the formula. Copy cell C4 to the range D4:G4.
12. In cell B5, enter the following formula: Year 1 Cost of Goods (cell B5) = Year 1 Sales * (1 – Margin) or =B4 * (1 - B27). Be sure to use an absolute reference where appropriate in the formula. Copy cell B5 to the range C5:G5.
13. In cell B6, enter the following formula: Gross Margin (cell B6) = Year 1 Sales - Year 1 Cost of Goods or =B4 – B5. Copy cell B6 to the range C6:G6.
14. In cell B8, enter the following formula: Year 1 Advertising (cell B8) = 500 + 8% * Year 1 Sales or =500 + 8% * B4. Copy cell B8 to the range C8:G8.
15. In row 9, enter the following data: Maintenance (row 9): Year 1 = **1,605,000**; Year 2 = **4,378,000**; Year 3 = **5,920,000**; Year 4 = **5,050,000**; Year 5 = **3,200,000**; Year 6 = **4,250,000**.
16. In cell B10, enter the following data: Year 1 Rent (cell B10) = **2,700,000**
17. In cell C10, enter the following formula: Year 2 Rent (cell C10) = Year 1 Rent * (1+12%) or =B10 * (1+12%). Copy cell C10 to the range D10:G10.
18. In cell B11, enter the following formula: Year 1 Salaries (cell B11) = 17% * Year 1 Sales or =17% * B4. Copy cell B11 to the range C11:G11.
19. In cell B12, enter the following formula: Year 1 Shipping (cell B12) = 3.9% * Year 1 Sales or =3.9% * B4. Copy cell B12 to the range C12:G12.
20. In cell B13, enter the following formula: Year 1 Supplies (cell B13) = 1.3% * Year 1 Sales or =1.3%*B4. Copy cell B13 to the range C13:G13.
21. In cell B14, enter the following data: Year 1 Web Services (cell B14) = **250,000**.
22. In cell C14, enter the following formula: Year 2 Web Services (cell C14) = Year 1 Web Services * (1+15%) or =B14*(1+15%). Copy cell C14 to the range D14:G14.
23. In cell B15, enter the following formula: Year 1 Total Expenses (cell B15) = SUM(B8:B14). Copy cell B15 to the range C15:G15.

24. In cell B17, enter the following formula: Year 1 Operating Income (cell B17) = Year 1 Gross Margin - Year 1 Total Expenses or =B6 - B15. Copy cell B17 to the range C17:G17.

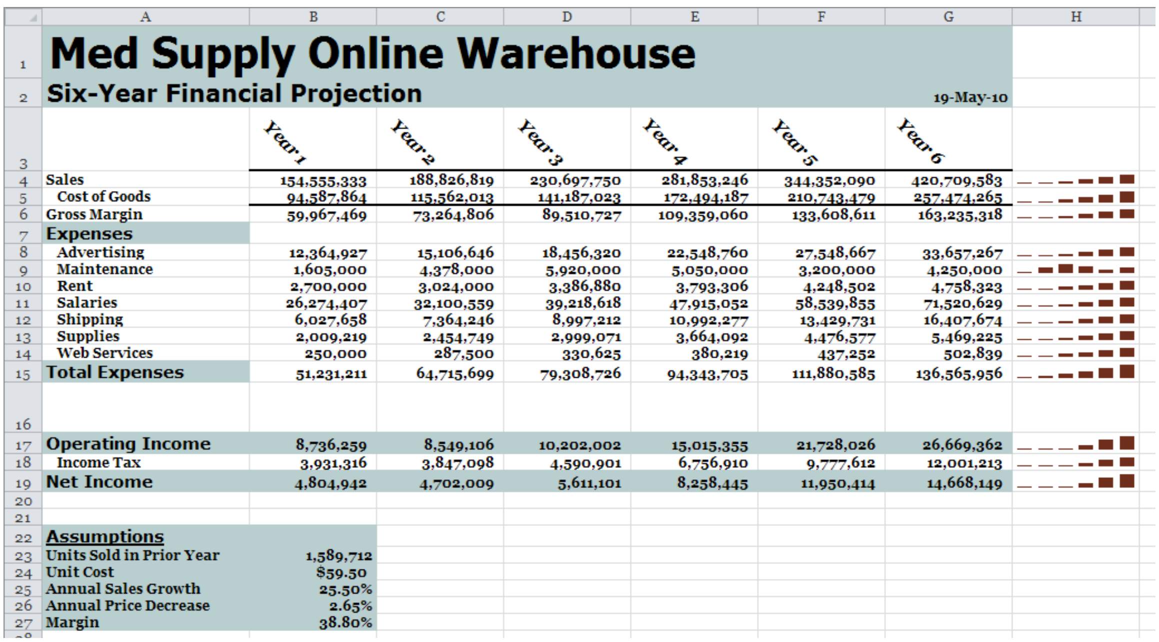
25. In cell B18, enter the following formula: Year 1 Income Taxes (cell B18) = If Year 1 Operating Income is less than 0, then Year 1 Income Taxes equal 0; otherwise Year 1 Income Taxes equal 45% * Year 1 Operating Income or =IF(B17 < 0, 0, 45% * B17). Copy cell B18 to the range C18:G18.

26. In cell B19, enter the following formula: Year 1 Net Income (cell B19) = Year 1 Operating Income - Year 1 Income Taxes or =B17 – B18. Copy cell B19 to the range C19:G19.

27. In cell H4, insert a Sparkline Column chart (Insert Tab | Sparklines group) for cell range B4:G4. Repeat this step to insert Sparkline Column charts in the cells H5:H6, H8:H15, and H17:H19

28. Change the background color of cells A7 and A15 and of the ranges A1:G2, A17:G17, A19:G19, and A22:B27 to theme color **Teal, Accent 3, Lighter 40%**. When complete, your worksheet should look like Final Figure 1.

FINAL FIGURE 1



	A	B	C	D	E	F	G	H
1	Med Supply Online Warehouse							
2	Six-Year Financial Projection						19-May-10	
3		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
4	Sales	154,555,333	188,826,819	230,697,750	281,853,246	344,352,090	420,709,583	
5	Cost of Goods	94,587,864	115,562,013	141,187,023	172,494,187	210,743,479	257,474,265	
6	Gross Margin	59,967,469	73,264,806	89,510,727	109,359,060	133,608,611	163,235,318	
7	Expenses							
8	Advertising	12,364,927	15,106,646	18,456,320	22,548,760	27,548,667	33,657,267	
9	Maintenance	1,605,000	4,378,000	5,920,000	5,050,000	3,200,000	4,250,000	
10	Rent	2,700,000	3,024,000	3,386,880	3,793,306	4,248,502	4,758,323	
11	Salaries	26,274,407	32,100,559	39,218,618	47,915,052	58,539,855	71,520,629	
12	Shipping	6,027,658	7,364,246	8,997,212	10,992,277	13,429,731	16,407,674	
13	Supplies	2,009,219	2,454,749	2,999,071	3,664,092	4,476,577	5,469,225	
14	Web Services	250,000	287,500	330,625	380,219	437,252	502,839	
15	Total Expenses	51,231,211	64,715,699	79,308,726	94,343,705	111,880,585	136,565,956	
16								
17	Operating Income	8,736,259	8,549,106	10,202,002	15,015,355	21,728,026	26,669,362	
18	Income Tax	3,931,316	3,847,098	4,590,901	6,756,910	9,777,612	12,001,213	
19	Net Income	4,804,942	4,702,009	5,611,101	8,258,445	11,950,414	14,668,149	
20								
21								
22	Assumptions							
23	Units Sold in Prior Year	1,589,712						
24	Unit Cost	$59.50						
25	Annual Sales Growth	25.50%						
26	Annual Price Decrease	2.65%						
27	Margin	38.80%						

Part 2: Create a Chart to Present the Data

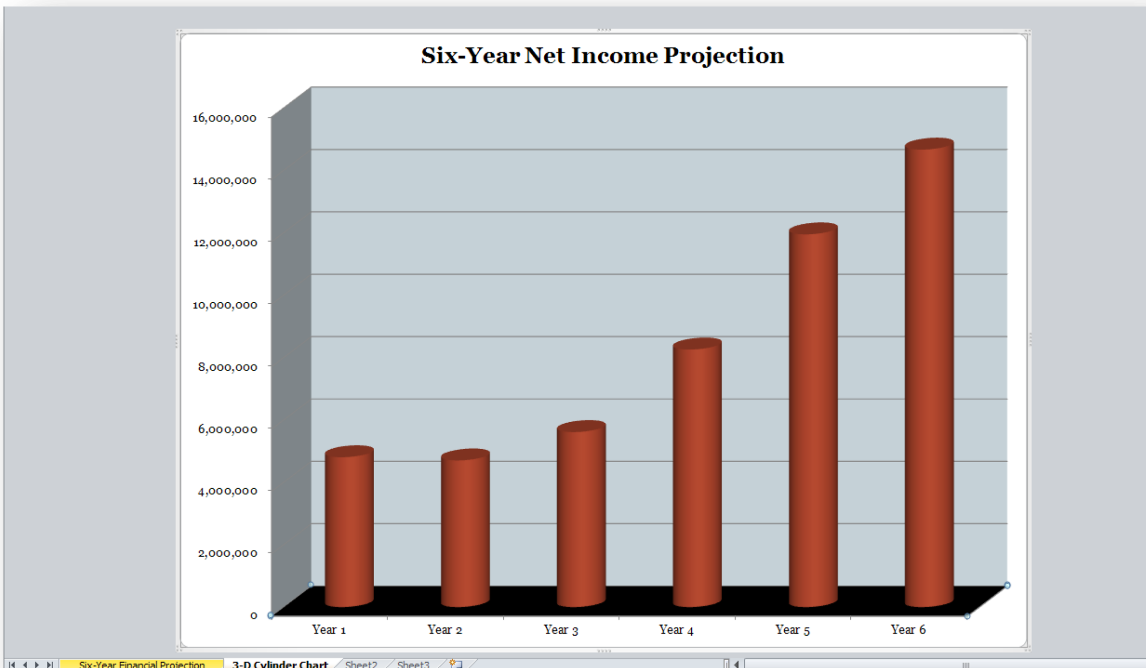
29. Use the nonadjacent ranges B3:G3 and B19:G19 to create a **Clustered Cylinder** chart. Draw the chart by clicking the Column button (Insert tab | Charts group). When the Column gallery is displayed, click the Clustered Cylinder chart type (column 1, row 3). When the chart is displayed, click the Move Chart button on the Ribbon to move the chart to a new sheet. (Note: Be sure to choose the “New sheet” option rather than the “Object in” option.)

30. Select the legend on the right side of the chart and delete it. Add the chart title **Six-Year Net Income Projection** by clicking the Chart Titles button (Layout tab | Labels group). Click **Above Chart** in the Chart Title gallery.

31. Change the color of the cylinders to the theme color **Red, Accent 1, Darker 25%**. Change the color of the wall to the theme color **Ice Blue, Background 2** and the floor fill color to the theme color **Black, Text 1**. (*Hint*: Change the color of an object by selecting the object and using the Shape Fill button arrow on the Chart Tools Format tab on the Ribbon.)

32. Rename the Sheet1 sheet tab as **Six-Year Financial Projection**. Rename the Chart1 sheet tab as **3-D Cylinder Chart**. Rearrange the sheets so that the Six-Year Financial Projection worksheet is before the chart sheet, color the worksheet tab using theme color **Dark Yellow, Accent 2, Lighter 40%**, and color the chart sheet tab using theme color **Orange, Accent 6, Lighter 40%**. Your chart sheet should look like Final Figure 2.

FINAL FIGURE 2



Save your changes, close the workbook and exit Excel. Submit to teacher as directed.

Grading Rubric – Excel 2010
Chapter 3 LAB– Med Supply Online Warehouse

Description	Pts	Your Score
Assumptions information should be entered and well-labeled. Text "Assumptions" 14 pt Verdana, underline	**3** **2**	
Net Income (G18) should be 14,668,149.	**5**	
Number style; 0 decimal places B14:G19	**3**	
Sheets named/ordered "**Six-Year Financial Projection**" + "**3-D Cylinder Chart"** Color tabs yellow & orange	**4** **2**	
Format Titles=merge/left align **Font**=White; row 1 = **36**-point **Tahoma** **Font**=Row 2 = to **20**-point **Verdana** ***Civic*** Theme	**4**	
Titles in row 3 "Year 1" – "Year 6" rotated -45 degrees	**4**	
Format the background color of cells A7 and A15 and ranges A1:G2, A17:G17, A19:G19, and A22:B27 to color **Teal, Accent 3, Lighter 40%**.	**4**	
Formulas B4 =B23 * (B24 / (1 – B27)) C4 =B4 * (1 + B25) * (1 - B26) Copy cell C4 to the range D4:G4 B5 =B4 * (1 - B27) *Copy cell B5 to the range C5:G5* B6 =B4 – B5 *Copy cell B6 to the range C6:G6.* B8 =500 + 8% * B4 *Copy cell B8 to the range C8:G8* B11 = 17% * B4 *Copy cell B11 to the range C11:G11* B12 =3.9% * B4 *Copy cell B12 to the range C12:G12* B13 =1.3%*B4 *Copy cell B13 to the range C13:G13* C14 = B14*(1+15%) *Copy cell C14 to the range D14:G14* B15 = SUM(B8:B14) *Copy cell B15 to the range C15:G15* B17 or =B6 - B15 *Copy cell B17 to the range C17:G17* B18 =IF(B17 < 0, 0, 45% * B17) *Copy cell B18 to the range C18:G18* B19 =B17 – B18 *Copy cell B19 to the range C19:G19* Row 9 "Maintenace" enter numbers B10 = 2700 C10 = B10*(1+12%) *Copy to range C11:G11*	**18**	
Clustered Cylinder chart from ranges B3:G3 and B19:G19 Separate worksheet, showing the semiannual financial projection June wedge offset.	**5**	
Add chart title **Six-Year Net Income Projection**, remove legend, add data labels. rotate chart, change colors—red cylinders/blue background	**6**	
Save as **Med Supply Online Warehouse**/submit *on time*	**5**	
TOTAL POSSIBLE POINTS:	**65**	

YOUR SCORE: ______/65