PRACTICE

*Practice the skills you learned in the tutorial using the same case scenario.*

## Review Assignments

**Data File needed for the Review Assignments: Crockett.xlsx**

Ajita has to create a report on the investment portfolio for Brian and Tammy Crockett. She wants to add charts that display where the couple's money is currently being invested and how their portfolio has performed in recent years. She's already entered the data. You will complete the report by adding the charts and a decorative cover sheet. Complete the following:

1. Open the **Crockett** workbook located in the Excel4\Review folder included with your Data Files, and then save the workbook as **Crockett Portfolio**. In the Documentation sheet, enter your name in cell B3 and the date in cell B4.
2. In the Composition worksheet, select the range A3:B8, and then insert the first 2-D pie chart. Move and resize the embedded pie chart to cover the range D1:G9 in the Portfolio Report worksheet.
3. Move the legend to the left side of the chart area. Change the chart title to **Investment Categories** and set its font size to 11 points. Change the fill color of the Cash slice to yellow. Add data labels that show the percentage of each pie slice to two decimal places outside of the pie chart, and then set the font size of the labels to 8 points.
4. Change the pie chart to a 3-D pie chart and set the 3-D rotation of the x-axis to 230° and the y-axis to 40°.
5. In the Sectors worksheet, select the range A3:D15, and then insert a 2-D clustered column chart. Move and resize the embedded chart to cover the range A12:D25 in the Portfolio Report worksheet.
6. Change the font size of the axis labels and legend to 8 points. Insert the chart title **Sector Percentages** above the plot and set its font size to 11 points. Change the format of the percentages in the vertical axis to display no decimal places. Overlay the legend at the top of the chart, and then change its fill color to white and insert a solid border around the legend.
7. Change the chart type of the S&P 500 series to a line chart, remove the line connecting the markers in the chart, and then change the marker type to a solid horizontal line of size 10.
8. Change the fill color of the columns for the Portfolio data series to the theme color Purple, Accent 4, Lighter 60%. Set the gap width of the columns in the Portfolio data series to 30%.
9. In the Portfolio History worksheet, select the range A3:B127, and then insert a line chart. Move and resize the chart to cover the range D29:G37 in the Portfolio Report worksheet. (*Hint*: Scroll down the Portfolio Report worksheet to locate the embedded chart.)
10. Remove the chart legend. Set the font size of the chart title to 11 points, and then set the font size of the axis labels to 8 points.
11. Set the major tick mark interval for the category axis at two years and the minor tick mark interval at one year. Use a custom format that displays the category axis date values as four-digit year values. Insert vertical gridlines for the minor tick marks.
12. Change the scale of the value axis to range from $200,000 to $350,000. Add major tick marks every $50,000. Add minor tick marks every $25,000. Insert horizontal gridlines for every minor tick mark.
13. In cell B32, insert a line sparkline for the data range C4:C127 of the Portfolio History worksheet to describe the growth of the portfolio over consecutive three-month periods. Mark the high point and the low point with green and red markers, respectively.
14. In cell B37, insert a line sparkline for the data range D4:D127 of the Portfolio worksheet to show the growth of the portfolio over consecutive one-year periods. Add high/low data markers and an axis to this sparkline to match the first sparkline.

15. In cell B42, insert a line sparkline showing the growth of the portfolio over consecutive three-year periods using the data range E4:E127 of the Portfolio worksheet. Format the sparkline to match the other two sparklines.
16. Add solid blue data bars to the values in the range G13:G20. Modify the data bar rule so that the maximum length of the data bar corresponds to a number value of 1.8. Repeat to create data bars for the area values in the range G23:G25.
17. Select the range A3:B127 in the Portfolio History worksheet, and insert a line chart. Move the embedded chart to a new chart sheet named **Cover Sheet**. Move the Cover Sheet worksheet directly after the Documentation sheet.
18. Change the chart style to Style 34 (the second style in the fifth row of the Chart Styles gallery). Remove the display of the horizontal, vertical, and depth axes. Remove the chart legend.
19. For the 3-D rotation, set the x-axis to 60°, the y-axis to 10°, the perspective to 15°, and the depth of the base to 2000.
20. Change the chart title to **Crockett Family Portfolio**. Set the font size of the chart title to 40 points.
21. Save and close your workbook, and then submit the finished workbook to your instructor, either in printed or electronic form, as requested.

## Case Problem 1

SAM

If you have a SAM 2010 user profile, your instructor may have assigned an autogradable version of this assignment. If so, log into the SAM 2010 Web site at www.cengage.com/sam2010 to download the instructions and start files.

APPLY

**Data File needed for this Case Problem: Kenai.xlsx**

***Kenai Fjords National Park*** Maria Sanford is the chief of interpretation at Kenai Fjords National Park. Part of her job is to report on park usage at the visitor centers. She wants to create a chart sheet that displays the park usage data. She has recorded last year's usage data in an Excel workbook. She asks you to present this data in a 3-D column chart for an upcoming meeting with her supervisor. She wants the chart to show the monthly usage totals organized by visitor center. She also wants a 3-D pie chart superimposed on the column chart and a table of park usage data. Complete the following:

1. Open the **Kenai** workbook located in the Excel4\Case1 folder included with your Data Files, and then save the workbook as **Kenai Fjords Park**. In the Documentation sheet, enter your name in cell B3 and the date in cell B4.
2. In the Park Usage Data worksheet, select the range A3:D15, and then insert the 3-D Column chart (the last chart in the 3-D Column section in the Charts gallery).
3. Move the chart to a chart sheet named **Monthly Visits**. Place the Monthly Visits chart sheet directly after the Documentation sheet.
4. Change the style of the chart to Style 42 (the second style in the sixth row in the Chart Styles gallery).
5. Insert a chart title using the centered overlay title format, change the title to **Kenai Fjords National Park 2013 Census**, and then set its font size to 24 points. Remove the legend from the chart.
6. Add the title **Monthly Visitors** to the vertical axis. Rotate the title 90° and set the font size to 14 points.
7. Rotate the 3-D chart using the following parameters: x-axis rotation 30°, y-axis rotation 20°, perspective 25°, and depth 130. (*Hint*: Uncheck the Right Angle Axes check box in the Chart Scale section to make the Perspective box active.)

EXPLORE

8. Modify the depth axis so that the values are displayed in reverse order. (*Hint*: Use the Axes button in the Axes group on the Chart Tools Layout tab to modify the depth axis.)

EXPLORE

9. Insert a data table without legend keys below the 3-D chart to provide the data values for the different columns. (*Hint*: Use the Data Table button in the Labels group on the Chart Tools Layout tab.)

10. Change the fill color of the Visitor Center series to orange.
11. In the Park Usage Data worksheet, select the range B3:D3;B16:D16, and then insert a 3-D pie chart.
12. Move the embedded chart to the Monthly Visits chart sheet.
13. Insert the chart title **Total Visits** above the pie chart, and set its font size to 16 points and its color to white.
14. Change the color of the Visitor Center slice to orange.
15. Remove the chart legend from the pie chart.
16. Add data labels to the inside of each slice, displaying the slice's value.
17. Change the fill color of the chart area to none (removing the fill color) and change the border color to no line (removing the border). Resize the embedded pie chart and move it to the lower-left of the column chart.
18. Go to the Park Usage Data worksheet, and then add data bars to the range B4:D15. Modify the rule for the data bars so that the maximum data bar length matches a value of 100,000.
19. Save and close your workbook, and then submit the finished workbook to your instructor, either in printed or electronic form, as requested.

*Create a combination chart describing tornado events.*

APPLY

## Case Problem 2

**Data Files needed for this Case Problem: Tornado.xlsx, Cloud.jpg**

***Midwest Tornado Institute*** Joyce Bishop is a meteorologist at the Midwest Tornado Institute located in Decatur, Illinois. Joyce is preparing for a talk she is giving to a local civic group on the possible effects of global warming on tornados. She has collected data on minor, moderate, and major tornado sightings in five-year periods during the second half of the twentieth century and wants you to create a graph for her talk showing her data. She's already entered this data into an Excel workbook. Complete the following:

1. Open the **Tornado** workbook located in the Excel4\Case2 folder included with your Data Files, and then save the workbook as **Tornado Sightings**. In the Documentation sheet, enter your name in cell B3 and the date in cell B4.
2. In the Sightings History worksheet, select the range A3:E13, and then insert a 2-D clustered column chart. Move the embedded chart to a chart sheet named **Sightings Chart**.
3. Change the chart style to Style 32 (the last chart style in the fourth row of the Chart Styles gallery).
4. Insert the chart title **Tornado Sightings: 1950–1999** at the top of the chart, and then change the font size to 24 points.
5. Add the vertical axis title **Sightings** in a 14-point font with horizontal orientation. Add the horizontal axis title **Years** in a 14-point font.
6. Move the legend to the bottom of the chart, and then set its font size to 14 points.

EXPLORE

7. Change the line style of the horizontal gridline from a solid line to a dashed line. (*Hint*: Use the Dash type button in the Line Style options in the Format Major Gridlines dialog box.)
8. Add vertical gridlines to the major tick marks in the chart. Display the gridlines as dashed lines.
9. Change the chart type of the All data series from a column chart to a 2-D line chart. Change the color of the line to standard blue.

EXPLORE

10. Select the plot area and change the fill to a picture fill, using the **Cloud.jpg** file located in the Excel4\Case2 folder included with your Data Files. (*Hint*: Open the Format Plot Area dialog box. In the Fill options, click the Picture or texture fill option button, click the File button, and then locate and select the picture file.)

11. Go to the Sightings History worksheet, and then insert orange data bars in the range B4:D13. Insert blue data bars in the range E4:E13. Note that the meaning of the lengths of the two sets of data bars is different because they are applied to different ranges.
12. In cell B2, insert a sparkline for the data in the range B4:B13 (do *not* include the total in cell B14). Repeat to insert a sparkline in each cell in the range C2:E2.
13. Save and close your workbook, and then submit the finished workbook to your instructor, either in printed or electronic form, as requested.

*Explore how to use Excel to chart stock market data.*

CHALLENGE

## Case Problem 3

**Data File needed for this Case Problem: Mitchell.xlsx**

***Hardin Financial*** Kurt Lee is a financial analyst for Hardin Financial, a consulting firm in Owatonna, Minnesota. As part of his job, he records stock market activity in Excel workbooks. One workbook contains the recent stock market activity of Mitchell Oil. He wants your help in creating a chart displaying the stock values. The chart should display the stock's opening, high, low, and closing values, and the number of shares traded for each day of the past few weeks. The volume of shares traded should be expressed in terms of millions of shares. Complete the following:

1. Open the **Mitchell** workbook located in the Excel4\Case3 folder included with your Data Files, and then save the workbook as **Mitchell Oil**. In the Documentation sheet, enter your name in cell B3 and the date in cell B4.

EXPLORE

2. In the Stock Values worksheet, select the range A3:F33, and then insert a Volume-Open-High-Low-Close stock chart. (*Hint*: Click the Other Charts button in the Charts group on the Insert tab to locate the stock charts.) Move the embedded chart to the chart sheet named **Stock History**.
3. Insert the chart title **Mitchell Oil** above the chart area, and then set the font size of the chart title to 18 points. Remove the chart legend.
4. Add the title **Date** to the primary horizontal axis, and then set its font size to 14 points. Add the title **Shares Traded** to the primary vertical axis, set its font size to 14 points, and then rotate the title 270°.

EXPLORE

5. Add the title **Stock Value** to the secondary vertical axis, set its font size to 14 points, and rotate the title 90°. (*Hint*: Open the Format Axis Title dialog box for the secondary vertical axis and use the Text direction button found in the Alignment category.)
6. Set the font size of all axis values to 12 points.
7. Display the horizontal and vertical gridlines using a dashed line style. Set the interval between major tick marks on the primary horizontal axis to 7 days.
8. For the primary vertical axis, display the values in units of one million, change the number format to two decimal place accuracy, and then set the maximum value of the axis scale to 2,000,000.
9. For the secondary vertical axis, set the minimum value of the scale to 10.
10. Decrease the gap width between the columns in the plot to 30% and change the fill color to light blue.
11. Change the fill color of the plot area to light yellow.

EXPLORE

12. In a stock market chart, the daily chart values will show either an increase or a decrease from the previous day. Increases are shown with an up bar displayed in white and decreases are shown with a down bar displayed in black. Select the data series for the up bars and change their fill colors to light green. Select the data series for the down bars and change their fill colors to red.

EXPLORE 13. Go to the Stock Values worksheet. Add a column sparkline to cell B2 to display the Shares Traded values in the range B4:B33.

14. Add a line sparkline to cell F2 to display the closing values of the stock over the range F4:F33.

15. In the range G3:G33, create a new column of values named **Difference** that is equal to the difference between the stock's closing value and its opening value on each day. Display the difference values using the same format as in column F.

EXPLORE 16. Add a win/loss sparkline to cell G2 that indicates the days that the stock gained value and the days that the stock lost value.

17. Save and close your workbook, and then submit the finished workbook to your instructor, either in printed or electronic form, as requested.

*Create an Excel workbook to provide a report on a sporting event.*

CREATE

## Case Problem 4

**Data File needed for this Case Problem: Basketball.xlsx**

***Blowout Sports*** Steve Eagan is the owner and operator of Blowout Sports, a sports information and scouting company located in Lexington, Kentucky. One of Steve's jobs is to provide detailed graphical reports and analysis of college basketball games for the media, coaches, and interested fans. Steve has been placing box score data and game logs into an Excel workbook. He wants to summarize this data in one worksheet using charts and graphs. He's asked you to help develop the workbook. Steve has a sample workbook containing the results of a recent basketball game for you to work on. Complete the following:

1. Open the **Basketball** workbook located in the Excel4\Case4 folder included with your Data Files, and then save the workbook as **Basketball Report**. In the Documentation sheet, enter your name in cell B3 and the date in cell B4.
2. The Game Log worksheet contains the minute-by-minute score of the game. Use the data in this worksheet to create a line chart describing the ebb and flow of the game that is embedded in the Game Report worksheet. The format of the chart is up to you, but it should include titles for the chart and the axes, a chart legend overlay, vertical gridlines spaced at 4-minute intervals, and horizontal gridlines at 5-point intervals. (*Hint*: To display vertical gridlines at 4-minute intervals, you must turn off the multi-level category labels.)
3. The Box Score worksheet contains statistical summaries of the game. Use the data in this worksheet to create two column charts describing the points scored by each player on the two teams. Embed the charts in the Game Report worksheet. The format of the charts is up to you, but it should include titles for the chart and axes, and gradient fill colors for the columns.
4. The Box Score worksheet also contains team statistics. Use this data to create several pie charts that compare the two teams. Embed the pie charts in the Game Report worksheet. The final pie charts should include data labels for the pie slices and slice colors that match the team's colors (red for Wisconsin, gold for Iowa).
5. The Season Record worksheet contains a record of each team's season including wins and losses. Use this data to create a win/loss sparkline displayed on the Game Report worksheet alongside each team's season record.

6. Create a chart sheet for the report that will be a cover sheet. The cover sheet should include a 3-D chart of some of the data in the workbook. The format of the chart and chart sheet is up to you.
7. Save and close your workbook, and then submit the finished workbook to your instructor, either in printed or electronic form, as requested.

ASSESS

## SAM: Skills Assessment Manager

For current SAM information, including versions and content details, visit SAM Central (http://samcentral.course.com). If you have a SAM user profile, you may have access to hands-on instruction, practice, and assessment of the skills covered in this tutorial. Since various versions of SAM are supported throughout the life of this text, check with your instructor for the correct instructions and URL/Web site for accessing assignments.

### ENDING DATA FILES