## SCREAMING ICE CREAM

## SKILLS

- Save a workbook with a new name
- Create a column chart
- Move a chart to a new worksheet
- Reorder worksheets
- Apply a style to a chart
- Insert a chart title
- Format a chart title
- Remove the legend from a chart
- Insert a vertical axis title
- Rotate and tilt a 3-D chart
- Modify the depth axis
- Insert a chart data table
- Format a data series
- Select non-adjacent cells
- Create a 3-D pie chart
- Move a chart as an object to a different sheet
- Add data labels
- Format a chart area
- Resize a chart
- Position a chart
- Add data bars to a range of cells
- Edit a conditional formatting rule


## PROJECT OVERVIEW

Aurora DuMont is the Director of Marketing at Screaming Ice Cream Shoppes, a privately owned gourmet ice cream shop that has stores in five beach towns in Suffolk County, NY. Last summer, she decided to do some in store market research on which customers where buying which flavors. She programmed the registers so that the clerks could record two facts about each purchase; the type of customer and the flavor ice cream bought. Customers were divided into four approximate age groups: Kids and teens under 20, Young Adults 21-40, Adults 41-60, and Seniors 61 and over. The same nine flavors were available in each store during the survey months. She wants to create a chart sheet that displays the ice cream flavor and purchase data. She has transferred the data into an Excel workbook. Ice cream flavors are coded IceC 1 to IceC 9 to keep the survey unbiased. She compiled the data from all five stores. She asks you to present this data in a 3-D Pyramid chart for an upcoming meeting with the company owners. She wants the chart to show the flavor purchase totals organized by age group. She also wants an exploded 3-D pie chart superimposed on the column chart and a table of ice cream flavor purchase data.

## STUDENT START FILE

NP_Excel2010_T4_CP1b_FirstLastName_1.xlsx (Note: Download your personalized start file from www.cengage.com/sam2010)

## Instructions

1. Open the file NP_Excel2010_T4_CP1b_FirstLastName_1.xlsx and save the file as NP_Excel2010_T4_CP1b_FirstLastName_2.xlsx before you move to the next step. Verify that your name appears in cell B4 of the Documentation sheet. (Note: Do not edit the Documentation sheet. If your name does not appear in cell B4, please download a new copy of the start file from the SAM Web site.)
2. In the Age Group Data worksheet, select the range A3:E12, and then insert the 3-D Pyramid chart (the last chart in the Pyramid section in the Charts gallery).
3. Move the chart to a chart sheet named Survey Charts. (Note: Be sure to choose the "New sheet" option button rather than the "Object in" option button.) Move the Survey Charts chart sheet to be the last sheet in the workbook.
4. Change the style of the chart to Style 10 (the second column in the second row in the Chart Styles gallery).
5. Insert the chart title using the Above Chart Title format, change the title to Screaming Ice Cream Summer Survey, and then set its font size to 28 points. Remove the legend from the chart.
6. Add the title Scoops Purchased to the vertical axis, using the Rotated Title option. Set the font size to $\mathbf{2 0}$ points.
7. Rotate the 3-D chart using the following parameters: $x$-axis rotation $\mathbf{4 0}^{\circ}$, $y$-axis rotation $\mathbf{3 0}^{\circ}$, perspective $\mathbf{2 5}^{\circ}$, and depth to $\mathbf{1 4 0}$. (Hint: If necessary, uncheck the Right Angle Axes check box in the Chart Scale section to make the Perspective box active.)
8. Modify the depth axis so 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 using the Show Reverse Axis option.)
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 Seniors series to standard Yellow.
11. In the Age Group Data worksheet, select the range B3:E3; B13:E13, and then insert a Pie in 3-D chart. Move the chart to be an object in the Survey Charts chart sheet.
12. Insert a chart title using the Above Chart Title format with the text Total Scoops, and set its font size to $\mathbf{1 4}$ points and its font color to Black, Text 1, Lighter $\mathbf{2 5 \%}$.
13. Change the fill color of the Seniors slice to standard Yellow.
14. Remove the chart legend from the pie chart.
15. Add data labels to the Center of the pie chart, displaying each slice's value.
16. Change the shape fill of the pie chart to No Fill (removing the fill color) and change the shape outline to No Outline (removing the border). Resize and move the embedded pie chart to the lower-left of the column chart so that the chart sheet matches Figure 1 below.

17. Go to the Age Group Data worksheet, and then add Gradient Fill - Orange Data Bar data bars to the range B4:E12. Modify the rule for the data bars so that the maximum data bar length matches a value of $\mathbf{1 0 , 0 0 0}$. Your completed Age Group Data worksheet should look like the Figure 2 below.

Save your changes, close the workbook and exit Excel. Follow the directions on the SAM Web site to submit your completed project.

FIGURE 2 (Age Group Data worksheet)

| 4 | A | B | C | D | E | F | G |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Flavors Purchased by Age Group |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |
| 3 | Flavor | Kids \& Teens | Young Adults | Adults | Seniors | Total |  |
| 4 | IceC 1 | 248 | 321 | 311 | 290 | 859 |  |
| 5 | IceC 2 | 195 | 425 | 395 | 278 | 898 |  |
| 6 | Icec 3 | 617 | 921 | 875 | 345 | 1,883 |  |
| 7 | Icec 4 | 1,022 | 2,877 | 2,104 | 1,298 | 5,197 |  |
| 8 | IceC 5 | 3,861 | 4,211 | 3,721 | 3,467 | 11,539 |  |
| 9 | IceC 6 | 4,288 | 4,994 | 2,865 | 1,012 | 10,294 |  |
| 10 | Icec 7 | 2,691 | 218 | 458 | 188 | 3,097 |  |
| 11 | IceC 8 | 944 | 2,044 | 3,498 | 1,911 | 4,899 |  |
| 12 | IceC 9 | 188 | 218 | 534 | 718 | 1,124 |  |
| 13 | Total | 14,054 | 16,229 | 14,761 | 9,507 | 39,790 |  |
| 14 |  |  |  |  |  |  |  |
| 15 |  |  |  |  |  |  |  |

