

1 Airport Passenger Counts



As an analyst for the airline industry, you track the number of passengers at major U.S. airports. One worksheet you created lists the number of total yearly passengers at the top five airports for four years. To prepare for an upcoming meeting, you need to create a chart to compare the number of passengers for each airport. In addition, you want to insert sparklines to visually represent trends in passengers at each airport.

- Open *e03m1Airports_LastFirst*.
- Create a clustered column chart for the range **A4:E9**. Position the chart to fit in the range **A15:F34**.
- Customize the chart style by doing the following:
 - Apply **Style 8** chart style.
 - Select **Color 6** in the *Monochromatic* section of the Change Colors gallery.
 - Change the fill color of the 2011 data series to **White, Background 1**.
- Enter **Passengers by Top U.S. Airports** as the chart title.



DISCOVER

- Adjust the value axis by doing the following:
 - Change the display units to **Millions** for the value axis.
 - Edit the axis title to display **MILLIONS OF PASSENGERS**.
- Display data labels above the columns for the 2011 data series only.
- Insert Line sparklines in the range **F5:F9** to illustrate the data in the range **B5:E9**. This should insert a sparkline to represent yearly data for each airport.
- Customize the sparklines by doing the following:
 - Show the high and low points in each sparkline.
 - Apply **Black, Text 1** color to the high point marker in each sparkline.
 - Apply **Dark Red** color to the low point marker in each sparkline.
- Merge cells in the range **A36:F41**, wrap text, and then apply **Top Align** and **Align Left** alignments.
- Compose a paragraph that analyzes the trends depicted by the airport sparklines. Notice the overall trends in decreased and increased number of passengers and any unusual activity for an airport. Spell check the worksheet and correct any errors.
- Insert a footer with your name on the left side, the sheet name code in the center, and the file name code on the right side on all worksheets.
- Save and close the workbook, and submit based on your instructor's directions.



2 Grade Analysis

- You are a teaching assistant for Dr. Monica Unice's introductory psychology class. You have maintained her grade book all semester, entering three test scores for each student and calculating the final average. Dr. Unice wants to see a chart that shows the percentage of students who earn each letter grade. You decide to create a pie chart. She wants to see if a correlation exists between attendance and students' final grades, so you will create a scatter chart.
- Open *e03m2Psych_LastFirst* and save it as *e03m2Psych_LastFirst*.
 - Create a pie chart from the Final Grade Distribution data located below the student data and move the pie chart to its own sheet named **Grades Pie**.
 - Customize the pie chart with these specifications:
 - Style 7 chart style
 - Chart title: **PSY 2030 Final Grade Distribution - Fall 2016**
 - B grade slice exploded
 - Legend: none

You are an assistant manager at Premiere Movie Source, an online company that enables customers to download movies for a fee. You need to track movie download sales by genre. You gathered the data for November 2016 and organized it in an Excel workbook. You are ready to create charts to help represent the data so that you can make a presentation to your manager later this week.

Set Chart Filters, Position, and Size

You created a clustered column chart, but you selected too many cells for the data source. You need to open the workbook and set chart filters to exclude extraneous data sources. In addition, you want to position and size the chart below the data.

- Open the *e03c1Movies* workbook and save it as **e03c1Movies_LastFirst**.
- Set chart filters to remove the Category Totals and the Weekly Totals.
- Position and size the chart to fill the **range A18:K37**.
- Change the row and column orientation so that the weeks appear in the category axis and the genres appear in the legend.

Add Chart Labels

You need to enter text for the chart title and add a value axis title. In addition, you want to position the legend on the right side because it is easier to read a vertical, alphabetical list rather than a horizontal list of genres.

- Enter the text **November 2016 Downloads by Genre** as the chart title, bold the title, and then apply **Black, Text 1 font color**.
- Add a value axis title: **Number of Downloads**. Apply **Black, Text 1 font color**.
- Move the legend to the right side of the chart.

Format Chart Elements

You are ready to apply the finishing touches to the clustered column chart. You will format the category axis by adjusting the font size and applying a darker font color. You will add and adjust data labels to the Drama data series to emphasize this series.

- Format the category axis with **11-pt size** and **Black, Text 1 font color**.
- Select the **Drama data series** and add data labels in the Outside End position.
- Add a **Gradient fill** to the data labels.

Insert and Format Sparklines

You want to show weekly trends for each genre by inserting sparklines in the column to the right of Category Totals.

- Click **cell G5** and insert Line Sparklines for the weekly data for each category and the weekly totals, but do not include the category totals for the data range. The location range should be **G5:G15**.
- Apply the **Sparkline Style Accent 3 (no dark or light) sparkline style**.
- Show the high point and markers.
- Change the high point marker color to **Red**.

Create a Stacked Bar Chart

You want to create a bar chart to show how the weekly totals contribute to the month totals by genre.

- Select the **range A4:E14**. Create a clustered bar chart.
- Move the chart to its own sheet named **Bar Chart**.
- Change the chart type to a stacked bar chart.
- Add a chart title above the chart and enter **November 2016 Weekly Downloads**.

Format the Bar Chart

You want to enhance the appearance of the chart by applying a chart style and adjusting the axis values.

- Apply bold and **Blue, Accent 5 font color** to the chart title.
- Apply **11-pt font size** to the category axis, value axis, and the legend.
- Use the **AXIS OPTIONS** to display the value axis in units of **Thousands**, set the Major Units to **500**, and apply the **Number format** with 1 decimal place.
- Use the **AXIS OPTIONS** to format the category axis so that the category labels are in reverse order.

Finalizing the Charts

You want to prepare the workbook in case someone wants to print the data and charts. To ensure the worksheet data and chart print on the same page, you need to adjust the page setup options.

- Create a footer on each worksheet with your name, the sheet name code, and the file name code.
- Apply **landscape orientation** for the Data worksheet.
- Set **0.2"** left, right, top, and bottom margins for the original worksheet.
- Change the scaling so that the worksheet fits on **only one** page.
- Save and close the workbook, and submit based on your instructor's directions.