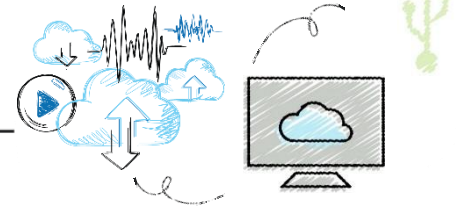


Excel 2016 Module 4

Working with Charts





Module Objectives

- Plan a chart
- Create a chart
- Move and resize a chart
- Change the chart design
- Change the chart format
- Format a chart
- Annotate and draw on a chart
- Create a pie chart



Plan a Chart (Slide 1 of 4)

- Chart planning guidelines
 - Determine the purpose of the chart
 - Identify the data relationships you want to communicate graphically
 - Determine results you want to see
 - Decide which chart type is most appropriate
 - Identify the worksheet data you want the chart to illustrate
 - Understand the elements of a chart



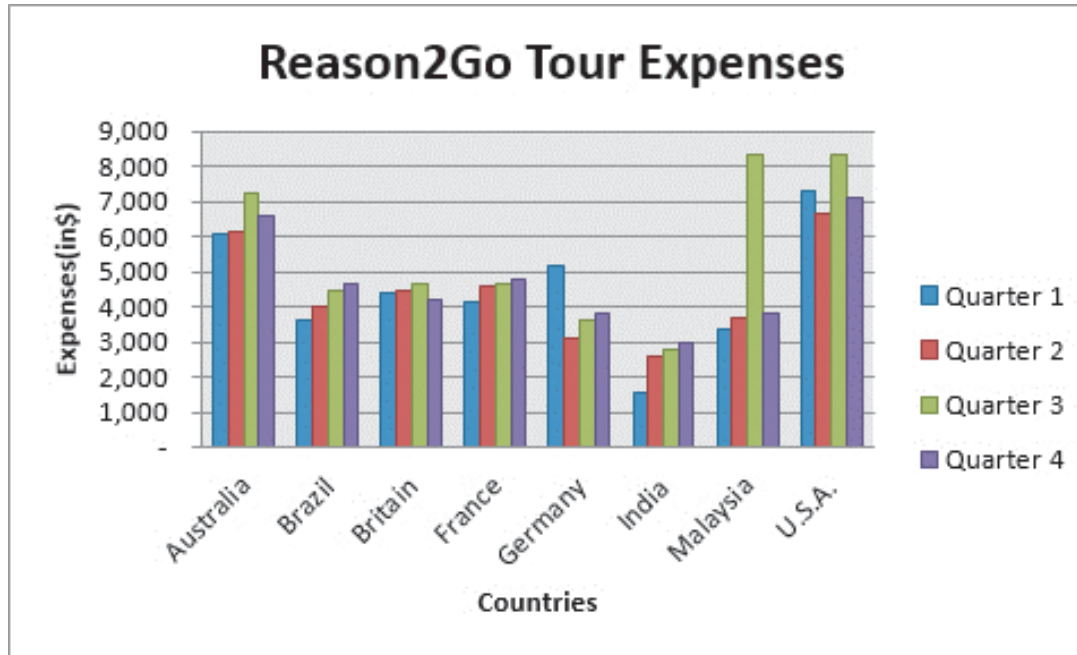
Plan a Chart (Slide 2 of 4)

- Chart elements
 - The horizontal axis (**x-axis**) is also called the **category axis**
 - The vertical axis (**y-axis**) is also called the **value axis**
 - The **z-axis** is present in 3-D charts
 - Area inside the horizontal and vertical axes is called the **plot area**
 - The scale of measure on the y-axis is identified by **tick marks**
 - A **legend** makes it easy to identify each data series
 - A **data point** is the value in a cell you select for your chart
 - A **data marker** visually represents each data point in the chart
 - A group of related data points is a **data series**



Plan a Chart (Slide 3 of 4)








Chart elements





Plan a Chart (Slide 4 of 4)

Common chart types

type	button	description
Column		Compares data using columns; the Excel default; sometimes referred to as a bar chart in other spreadsheet programs
Line		Compares trends over even time intervals; looks similar to an area chart, but does not emphasize total
Pie		Compares sizes of pieces as part of a whole; used for a single series of numbers
Bar		Compares data using horizontal bars; sometimes referred to as a horizontal bar chart in other spreadsheet programs
Area		Shows how individual volume changes over time in relation to total volume
Scatter		Compares trends over uneven time or measurement intervals; used in scientific and engineering disciplines for trend spotting and extrapolation
Combo		Displays two or more types of data using different chart types; illustrates mixed or widely varying types of data



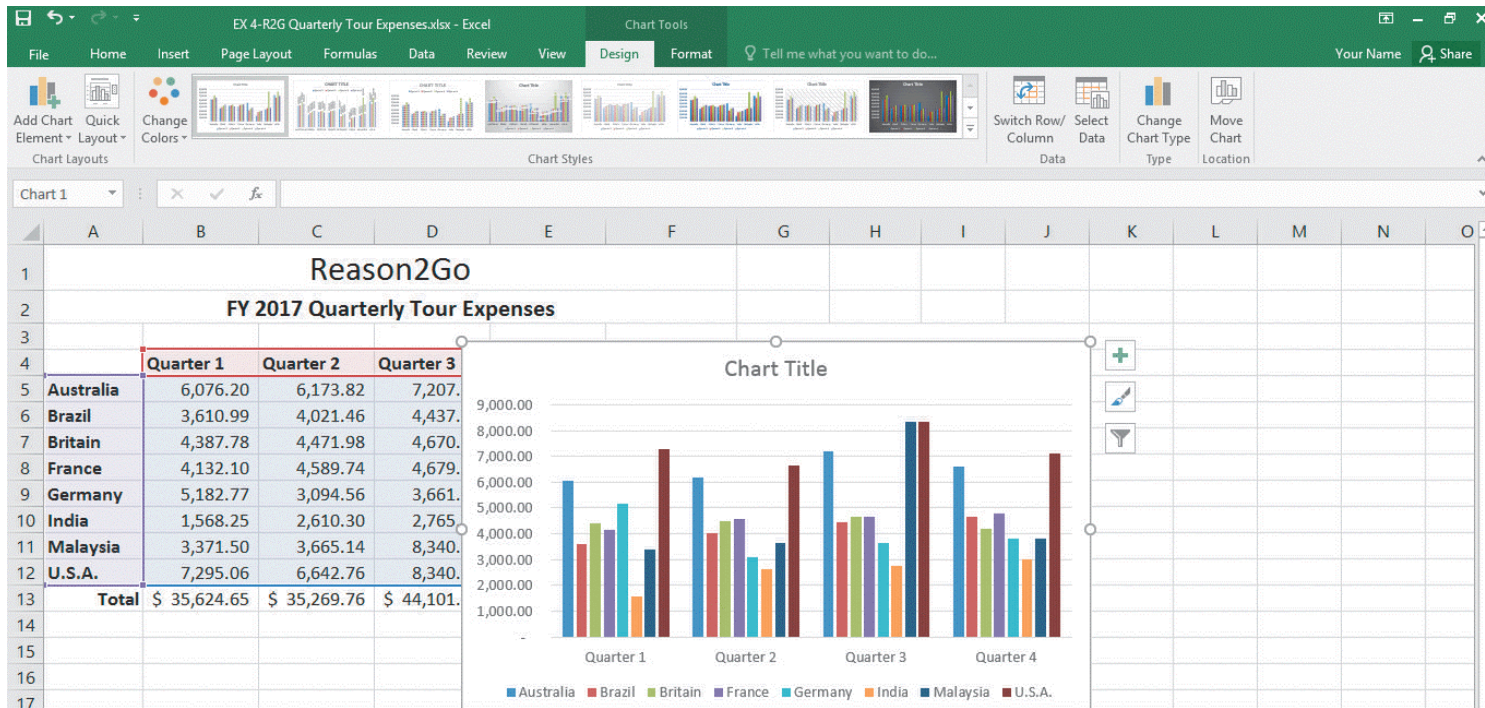
Create a Chart (Slide 1 of 2)

- To create a chart:
 - Select a range of data
 - Use buttons on the Insert tab of the Ribbon to create and modify a chart
- **Sizing handles** indicate that the chart is selected
- An **embedded** chart is one that is inserted directly in the current worksheet
- A **chart sheet** is a sheet in a workbook that contains only a chart, which is linked to the workbook data



Create a Chart (Slide 2 of 2)

Clustered Column chart with different presentation of data





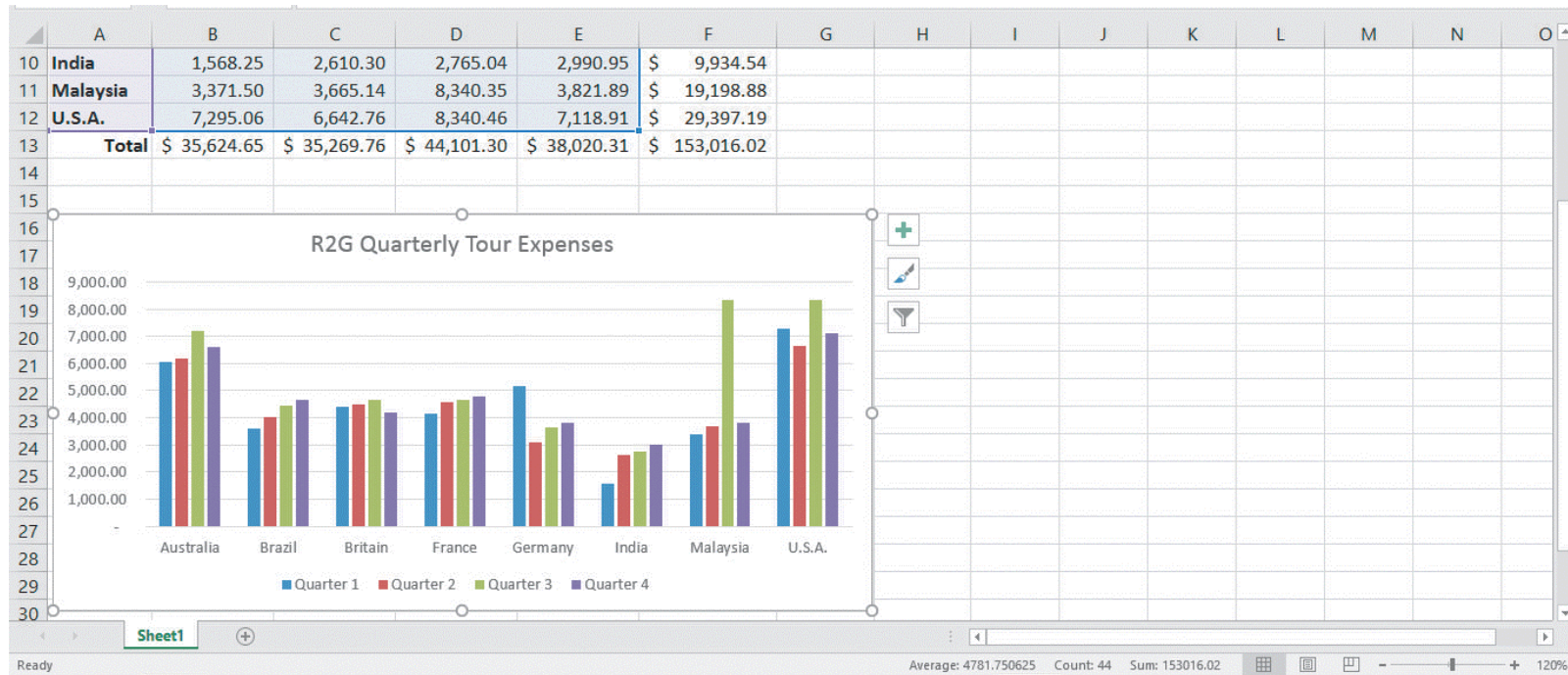
Move and Resize a Chart (Slide 1 of 2)

- An **object** is an independent element on a worksheet
 - Moving a chart object does not affect formulas or data
 - Resize a chart by dragging its sizing handles;
 - Move a chart by dragging the chart itself



Move and Resize a Chart (Slide 2 of 2)

Moved and resized chart





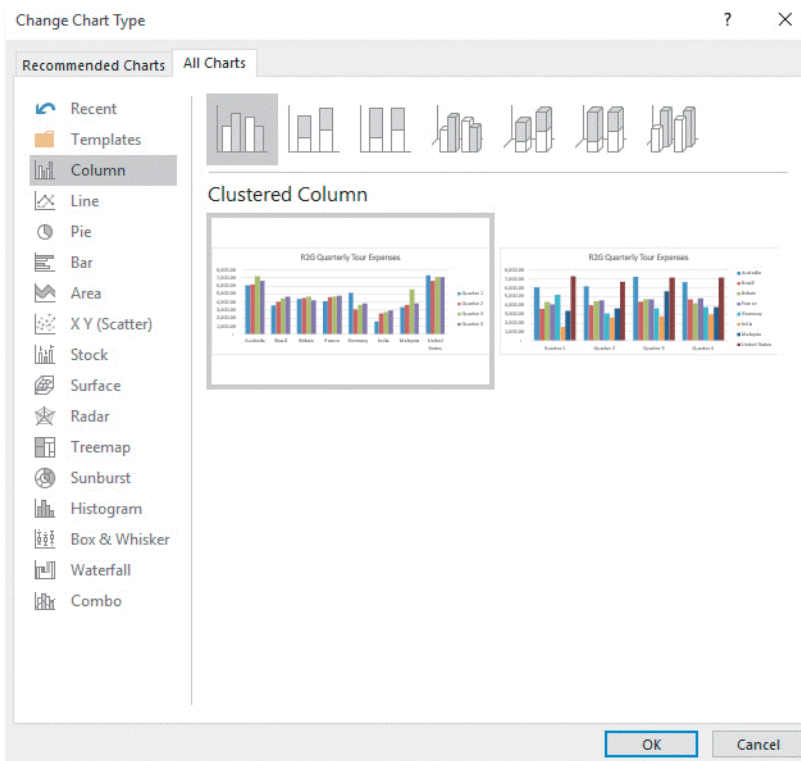
Change the Chart Design (Slide 1 of 2)

- Changing data values in the worksheet automatically updates the chart
- Chart Tools tabs can be used to make specific changes in a chart
- Using the Chart Tools Design tab, you can:
 - Change the chart type
 - Modify the data range and configuration
 - Change the layout of objects
 - Choose from coordinating color schemes
 - Move the location of the chart



Change the Chart Design (Slide 2 of 2)

Change Chart Type dialog box





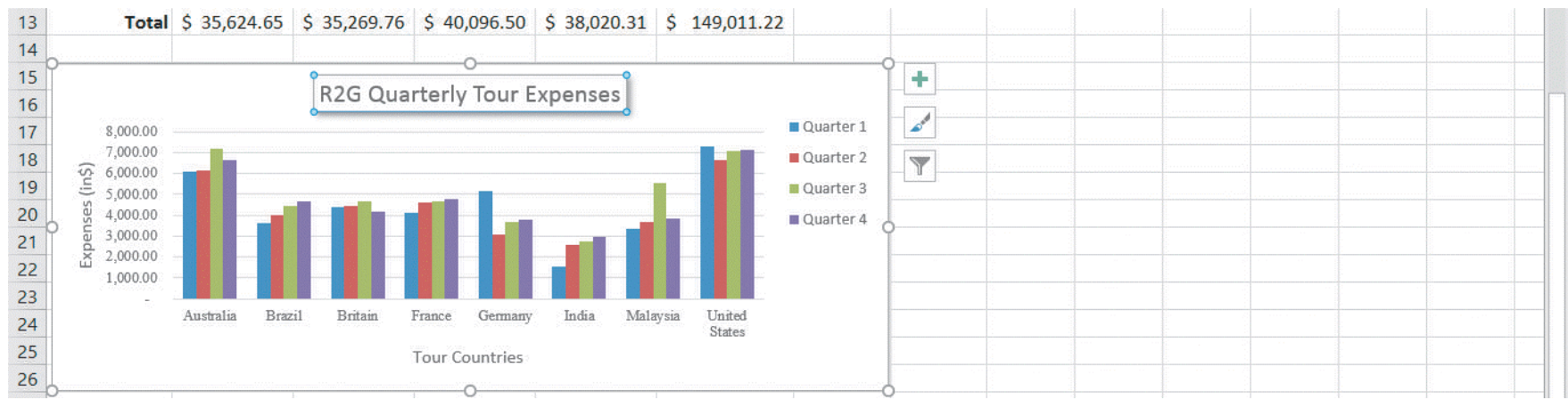
Change the Chart Format (Slide 1 of 2)

- Chart Elements button makes it easy to add, remove, and modify chart objects
- Using options on this shortcut menu:
 - Add text to a chart
 - Add and modify labels
 - Change the display of axes



Change the Chart Format (Slide 2 of 2)

Enhanced Chart





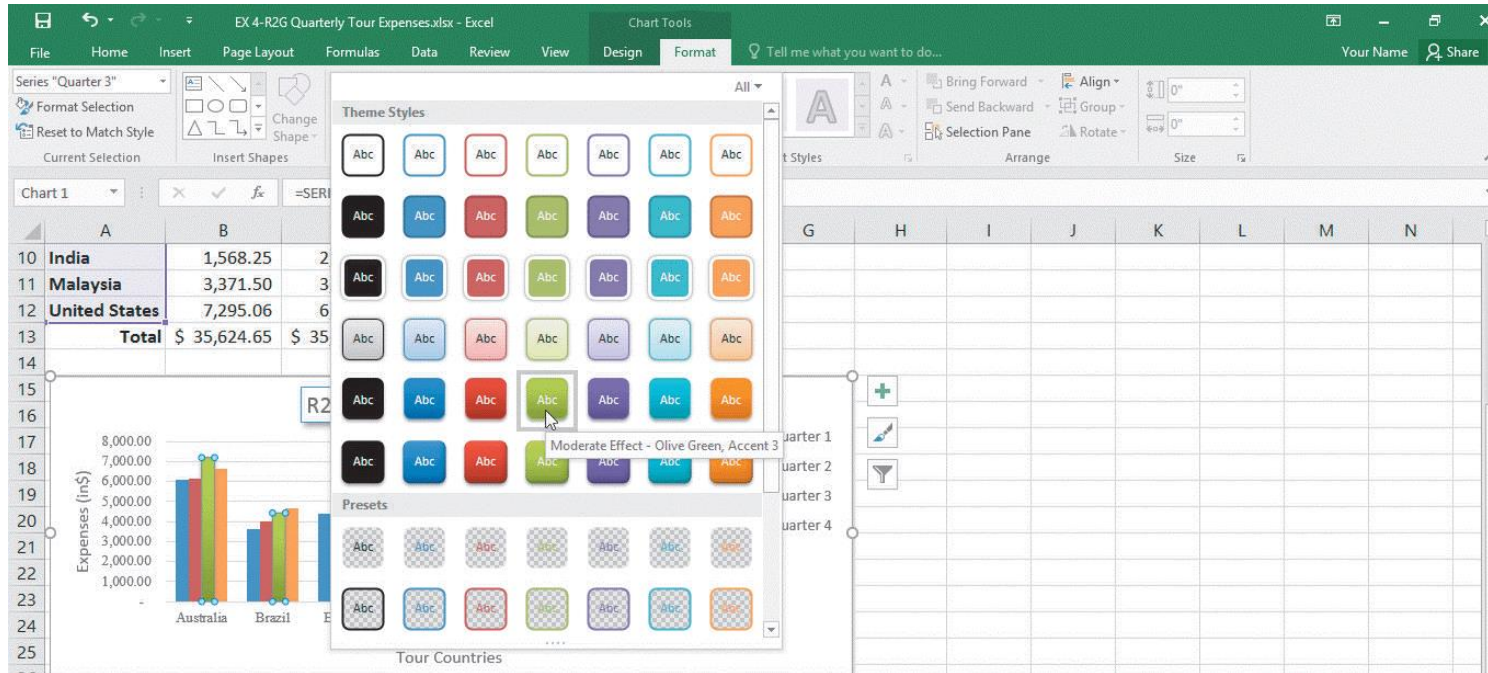
Format a Chart (Slide 1 of 2)

- Chart Tools Format tab can be used to make formatting enhancements
 - Change colors in a specific data series
 - Apply a style to a series using the Shape Styles group



Format a Chart (Slide 1 of 2)

Live Preview of new style applied to data series





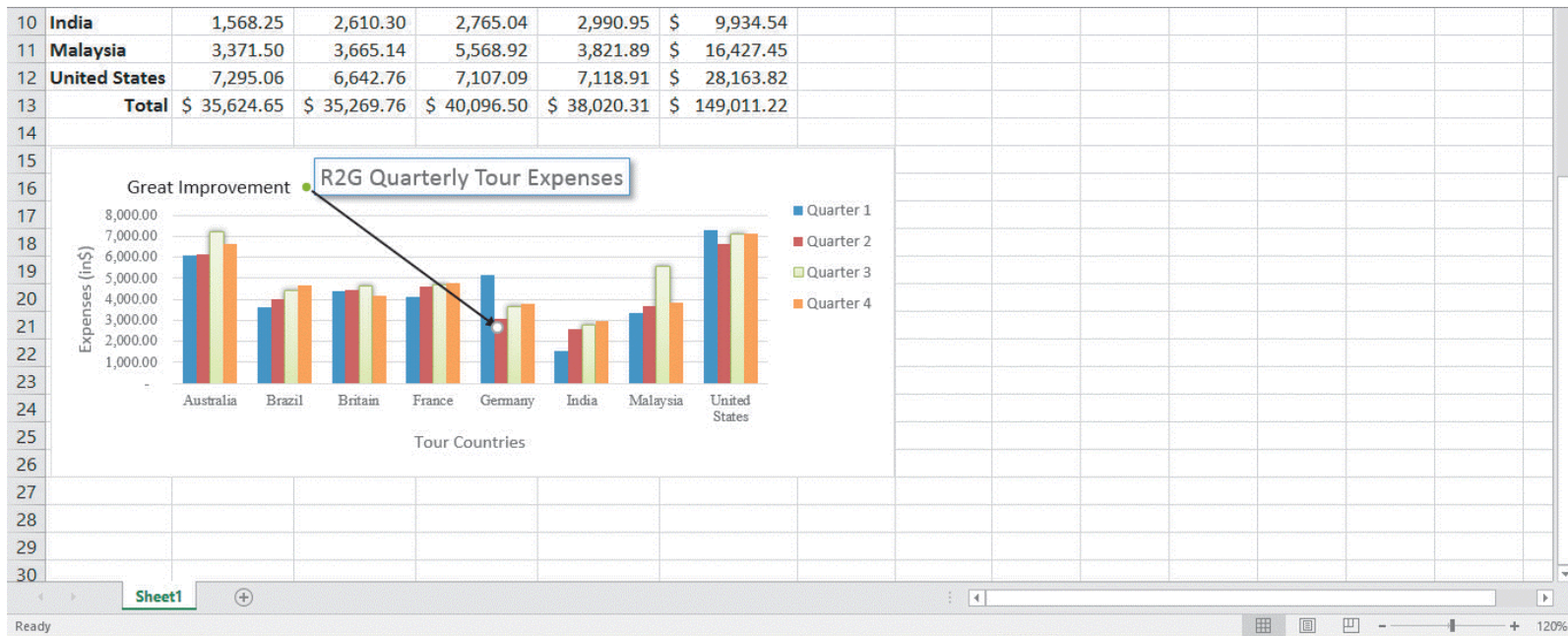
Annotate and Draw on a Chart (Slide 1 or 2)

- A **text annotation** is a label that you add to a chart to further describe data
- You can add shapes such as arrows and boxes to a chart
 - Lines and arrows can be used to point out exact locations you want to emphasize



Annotate and Draw on a Chart (Slide 2 or 2)

Text annotation and arrow shape added to chart





Create a Pie Chart (Slide 1 of 2)

- You can create multiple charts based on the same worksheet data
 - Different chart types can be better at emphasizing different parts of the data
- In a pie chart, emphasize a data point by **exploding**, or pulling that slice away from the pie chart



Create a Pie Chart (Slide 2 of 2)

Preview of worksheet with charts in Backstage view

Print

Copies: 1

Printer

Canon MF210 Series
Ready

Settings

Print Active Sheets
Only print the active sheets

Pages: 1 to 1

Print on Both Sides
Flip pages on long edge

Collated
1,2,3 1,2,3 1,2,3

No Staples

Landscape Orientation

Letter
8.5" x 11"

Normal Margins
Left: 0.7" Right: 0.7"

Fit Sheet on One Page
Shrink the printout so that it...

Reason2Go
FY 2017 Quarterly Tour Expenses

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
Australia	6,076.20	6,173.82	7,307.66	6,624.19	26,081.87
Brazil	3,620.99	4,021.46	4,457.40	4,658.11	16,727.96
Britain	4,387.78	4,471.98	4,670.21	4,200.04	17,730.01
France	4,132.10	4,589.74	4,679.06	4,793.72	18,194.62
Germany	5,182.77	3,094.56	3,661.12	3,812.90	15,750.35
India	1,588.25	2,610.30	2,785.04	2,990.95	9,974.54
Malaysia	3,971.90	3,665.14	3,568.92	3,821.89	15,027.85
United States	7,395.06	6,842.76	7,107.09	7,118.91	28,163.82
Total	\$ 35,624.65	\$ 35,289.76	\$ 40,096.50	\$ 38,020.91	\$ 149,031.82

R2G Total Expenses, by Country

Australia Brazil Britain France Germany India Malaysia United States

R2G Quarterly Tour Expenses

Quarter 1 Quarter 2 Quarter 3 Quarter 4