



# Hands-on Lab 1: Creating Basic Charts

**Estimated time needed:** 20 minutes

In this lab, you will learn how to create some basic charts in Excel. First, we will look at how to create a column chart and then an area chart. Next, we will learn how to create a bar chart and a line chart from a pivot table.

## Software Used in this Lab

The instruction videos in this course use the full Excel Desktop version as this has all the available product features, but for the hands-on labs we will be using the free ‘Excel for the web’ version as this is available to everyone.

Although you can use the Excel Desktop software if you have access to this version, it is recommended that you use Excel for the web for the hands-on labs as the lab instructions specifically refer to this version, and there are some small differences in the interface and available features. If you do not yet have access to Excel for the Web, you can follow the instructions in the following lab to get started with it: [Hands-on Lab: Introduction to Excel for the web](#).

## Dataset Used in this Lab

The dataset used in this lab comes from the following source: <https://www.kaggle.com/gagandeep16/car-sales> under a [CC0: Public Domain license](#). We are using a modified subset of that dataset for the lab, so to follow the lab instructions successfully, please use the dataset provided with the lab, rather than the dataset from the original source.

## Objectives

After completing this lab, you will be able to:

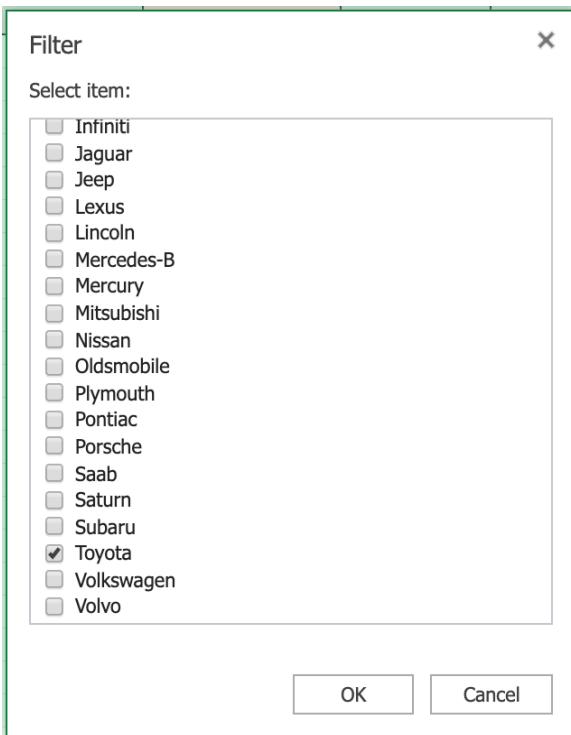
- Create a column chart.
- Create an area chart.
- Create a bar chart from a pivot table.
- Create a line chart from a pivot table.

## Exercise 1 : Creating Column Charts and Area Charts in Excel

In this exercise, you will learn how to create basic charts, such as column and area charts, in Excel.

### Task A : Create a Column Chart

1. Download the file [Car\\_Sales\\_Kaggle\\_DV0130EN\\_Lab1\\_Start.xlsx](#). Upload and open it using Excel for the web.
2. Switch to the worksheet named **Column Chart**.
3. Click the **drop-down** arrow at the top of column A (Manufacturer)
4. In the list, only select **Toyota** and click **OK**.



5. Select column **B**, then hold **SHIFT** and select column **C**.

	A	B	C	D
1	Manufacturer	Model	Power Perf Factor	Unit Sales
136	Toyota	Corolla	47.96897242	142535
137	Toyota	Camry	54.37241965	247994
138	Toyota	Avalon	84.91189826	63849
139	Toyota	Celica	56.49603034	33269
140	Toyota	Tacoma	55.29711658	84087
141	Toyota	Sienna	78.02721947	65119
142	Toyota	RAV4	51.95510887	25106
143	Toyota	4Runner	62.35557713	68411
144	Toyota	Land Cruiser	102.5289842	9835
157				

6. On the **Charts** group of the **Insert** tab, click **Column** Chart and choose **Clustered Column** from the **2-D Column** category.

The screenshot shows the Microsoft Excel ribbon with the 'Chart' tab selected in the 'Design' group. A floating chart area is overlaid on a table of Toyota car data. The chart area displays a clustered column chart with three series: 'Corolla', 'Camry', and 'Avalon'. A tooltip from the chart area reads: 'Compare values across categories by using vertical rectangles.' Another tooltip below it reads: 'Use it when the order of categories is not important or for displaying item counts such as a histogram.' The table data includes columns for Model, Power Perf Factor, Unit Sales, Resale Value, and Retention.

Model	Power Perf Factor	Unit Sales	Resale Value	Retention
Corolla	47.96897242	247994	\$10,025	
Camry	54.37241965	247994	\$17,518	\$13,245
Avalon	84.91189826	65191	\$7,445	\$18,140
Celica	56.49603034	33269	\$16,875	\$15,445
Tacoma	55.29711658	65191	\$9,575	
Sienna	78.02721947	65191	\$22,368	\$18,689
RAV4	51.95510887	25106	\$16,888	\$13,325
4Runner	62.35557713	68411	\$22,288	\$19,425
Land Cruiser	102.5289842	9835	\$51,728	\$34,080

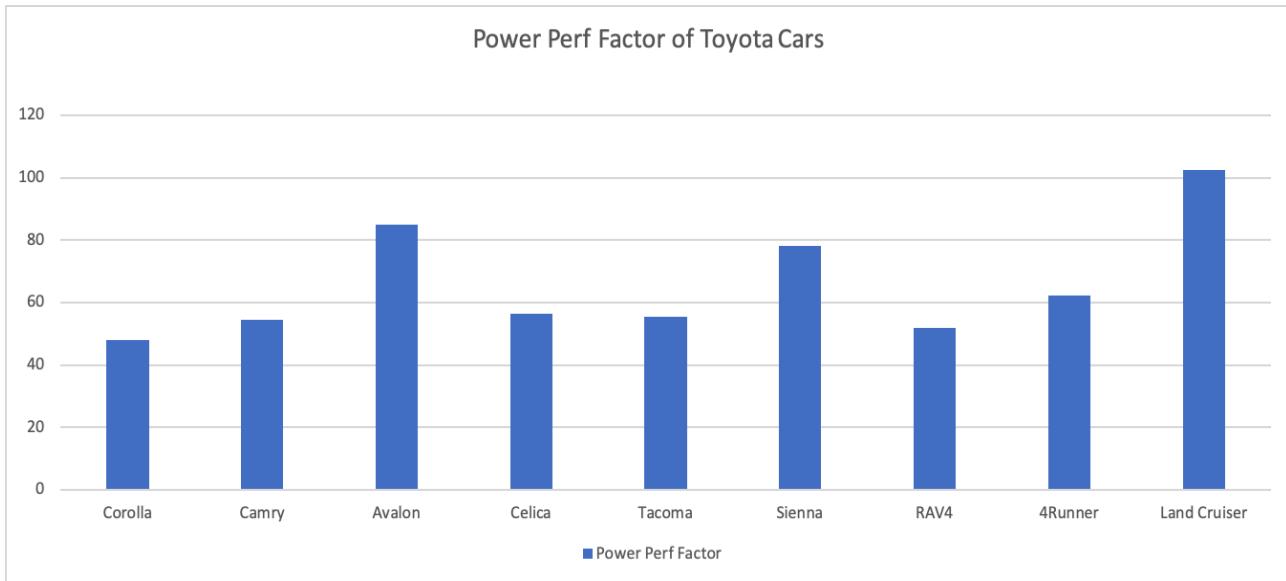
7. Click on the floating chart area to access the **Chart** tab in the ribbon.

8. On the **Labels** group of the **Chart** tab, click **Chart Title** and select **Edit Chart Title....**

The screenshot shows the 'Chart Tools' ribbon with the 'Chart' tab selected. The 'Chart Title' dropdown menu is open, showing options: 'None', 'Do not display a chart Title', 'Centered Overlay Title', 'Overlay centered Title on chart without resizing chart', 'Above Chart', 'Display Title at top of chart area and resize chart', 'Edit Chart Title...', and 'Change the Title'. The 'Edit Chart Title...' option is highlighted with a cursor.

9. In the text input area of the dialog box **Edit Title**, write “**Power Perf Factor of Toyota Cars**” and click **OK**.

10. Your chart should look something like the one below:



## Task B : Create an Area Chart

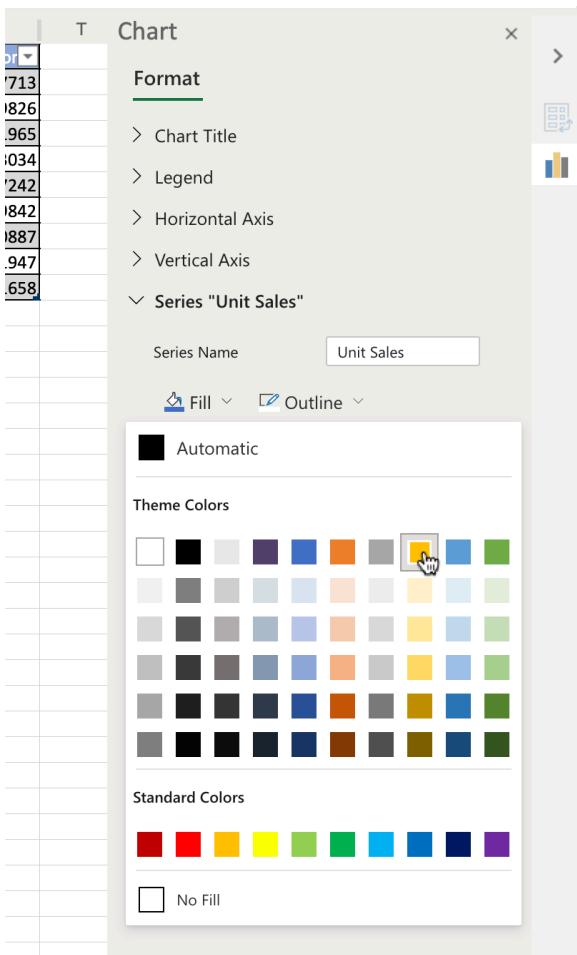
1. Switch to the worksheet named **Area Chart**.
2. Click the **filter drop-down** in column A (**Manufacturer**), and select **Filter....**
3. In the list, only select **Toyota** and click **OK**.
4. Select column **B**, then hold **SHIFT** and select column **C**.
5. On the **Charts** group of the **Insert** tab, click **Area Chart** and choose **Area** from the **2-D Area** category.

The screenshot shows the Microsoft Excel ribbon with the 'Insert' tab selected. In the 'Charts' group, the 'Area' icon is highlighted, and a dropdown menu labeled '2-D Area' is open, showing the 'Area' option. Below the ribbon, there is a floating chart preview of an area chart with a blue area fill and a white grid background. The main worksheet area contains a table with columns B through E, corresponding to the steps listed above.

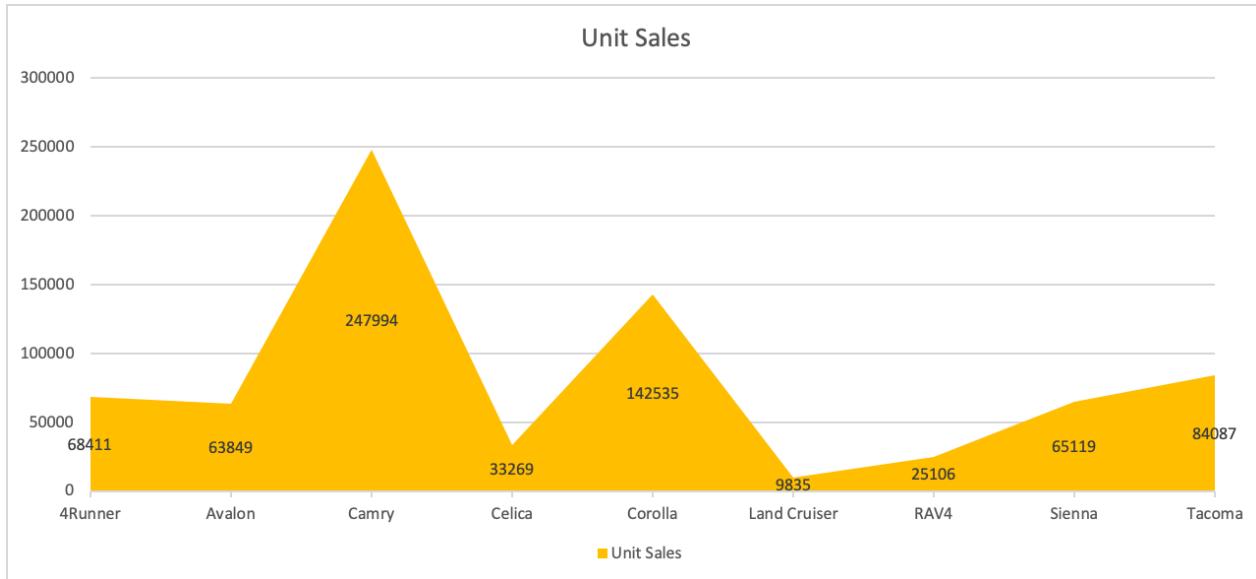
Model	Unit Sales	Price	Year Resale Value	Condition	Score
4Runner	68411	\$22,288	\$19,425	GOOD	5
Avalon	63849	\$25,545	\$18,140	GOOD	2.2
Camry	247994	\$17,518	\$13,245	GOOD	1.8
Celica	33269	\$16,875	\$15,445	GOOD	1.8
Corolla	142535	\$13,108	\$10,025	GOOD	4.7
Land Cruiser	9835	\$51,728	\$34,080	POOR	2
RAV4	25106	\$16,888	\$13,325	GOOD	3
Sienna	65119	\$22,368	\$18,689	GOOD	2.4
Tacoma	84087	\$11,528	\$9,575	GOOD	

6. Click on the floating chart area to access the **Chart** tab in the ribbon.
7. On the **Labels** group of the **Chart** tab, click **Data Labels** and select **Show**.
8. On the **Format** group of the **Chart** tab, click **Format**.

9. On the right side menu bar **Format**, select Series “Unit Sales” > Fill > Gold, Accent 4.



10. Your chart should look something like the one below:



## Exercise 2 : Create Bar Charts and Line Charts from a Pivot Table in Excel

In this exercise, you will learn how to create basic charts, such as bar and line charts, using a pivot table in Excel.

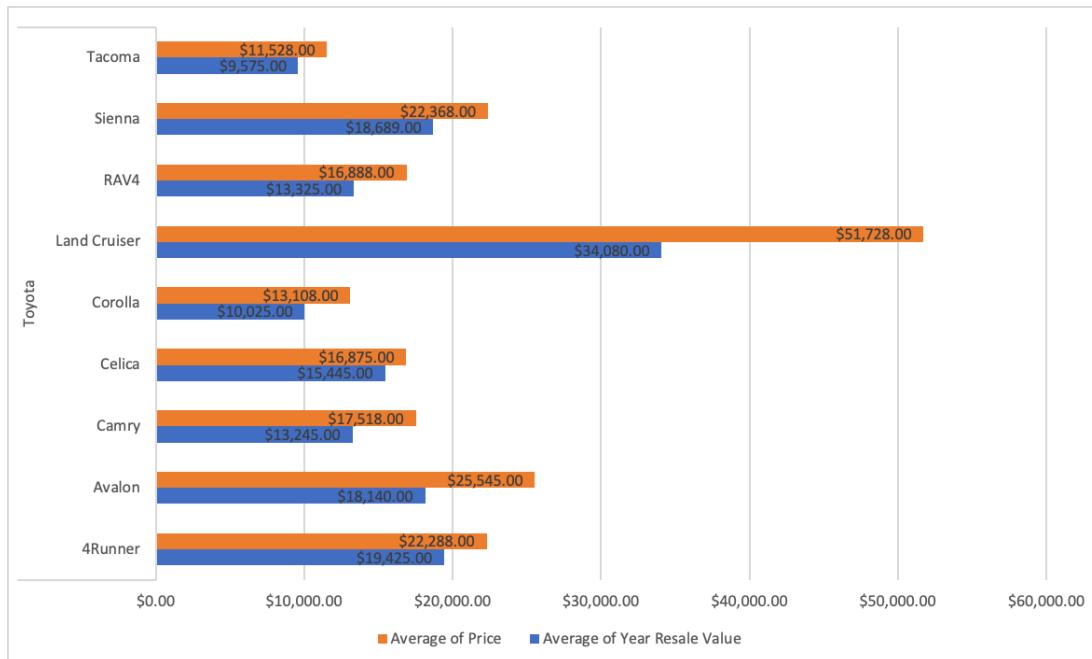
## Task A : Create a Bar Chart from a Pivot Table

1. Switch to the worksheet named **Bar Chart**.
2. Click the **filter drop-down** in column A, and select **Manufacturer > Filter....**

The screenshot shows a pivot table with columns A, B, and C. Row 3 is labeled 'Row Labels'. Column A contains manufacturer names: Acura, Audi, BMW, Buick, Cadillac, Chevrolet, Chrysler, Dodge, and Ford. Column B contains average resale values, and Column C contains average prices. A context menu is open over the 'Manufacturer' filter in row 4, listing options: Sort Ascending (A to Z), Sort Descending (Z to A), Sort By Value..., Clear Filter from 'Manufacturer', Label Filters, Value Filters, and Filter... (which is highlighted). The cursor is pointing at the 'Filter...' option.

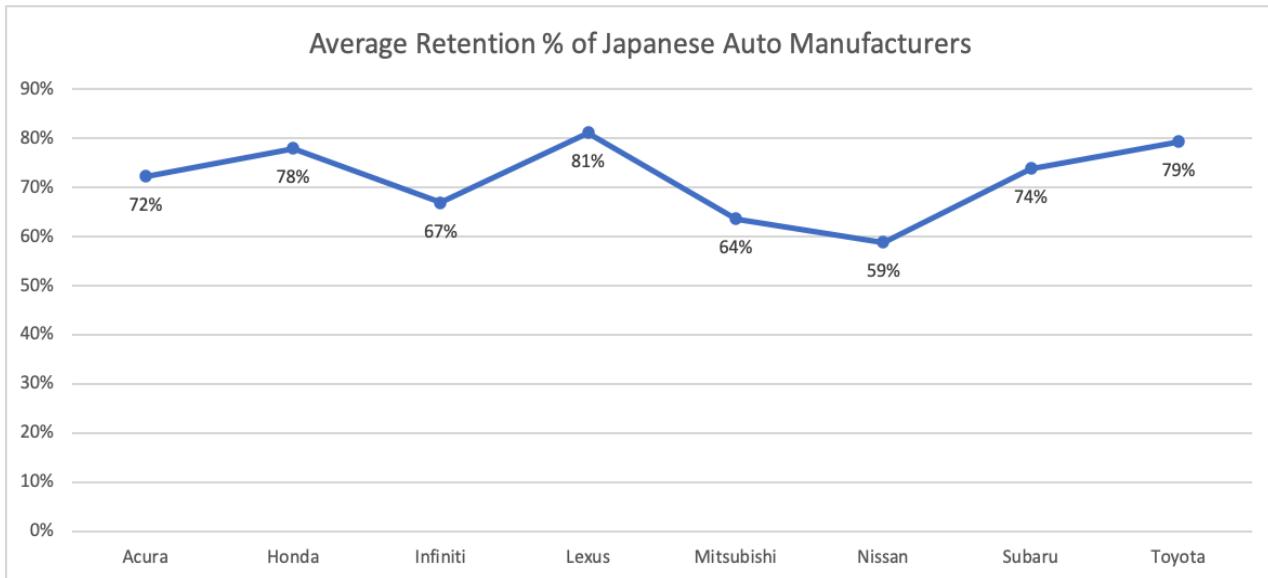
A	B	C
1		
2		
3	Row Labels	Average of Year Resale Value    Average of Price
4	+ Acura	Manufacturer >
5	+ Audi	Model >
6	+ BMW	
7	+ Buick	
8	+ Cadillac	
9	+ Chevrolet	
10	+ Chrysler	
11	+ Dodge	
12	+ Ford	

3. In the list, only select **Toyota** and click **OK**.
4. Double-click cell **A4** to expand entire field.
5. On the **Charts** group of the **Insert** tab, click **Bar Chart** and choose **Clustered Bar** from the **2-D Bar** category.
6. Click on the floating chart area to access the **Chart** tab in the ribbon.
7. On the **Labels** group of the **Chart** tab, click **Data Labels** and select **Inside End**.
8. Your chart should look something like the one below:



## Task B : Create a Line Chart from a Pivot Table

1. Switch to the worksheet named **Line Chart**.
2. Click the **filter drop-down** in column A, and select **Manufacturer > Filter....**
3. In the list, only select **Acura, Honda, Infiniti, Lexus, Mitsubishi, Nissan, Subaru, Toyota** and click **OK**.
4. Click any cell of the pivot table.
5. On the **Charts** group of the **Insert** tab, click **Line Chart** and choose **Line with Markers** from the **2-D Line** category.
6. Click on the floating chart area to access the **Chart** tab in the ribbon.
7. On the **Labels** group of the **Chart** tab, click **Chart Title** and select **Edit Chart Title....**
8. In the text input area of the dialog box **Edit Title**, write “**Average Retention % of Japanese Auto Manufacturers**” and click **OK**.
9. On the **Labels** group of the **Chart** tab, click **Data Labels** and select **Below**.
10. On the **Labels** group of the **Chart** tab, click **Legend** and select **None**.
11. Your chart should look something like the one below:



**Congratulations! You have completed Lab 1, and you are ready for the next topic.**

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