

Data visualization using in Excel Lab1

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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**.

Filter

Select item:

- ☐ Infiniti
- ☐ Jaguar
- ☐ Jeep
- ☐ Lexus
- ☐ Lincoln
- ☐ Mercedes-B
- ☐ Mercury
- ☐ Mitsubishi
- ☐ Nissan
- ☐ Oldsmobile
- ☐ Plymouth
- ☐ Pontiac
- ☐ Porsche
- ☐ Saab
- ☐ Saturn
- ☐ Subaru
- ☒ Toyota
- ☐ Volkswagen
- ☐ Volvo

OK Cancel

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

	A	B	C	D	
1	Manufacturer	Model	Power Perf Factor	Unit Sales	Pri
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					

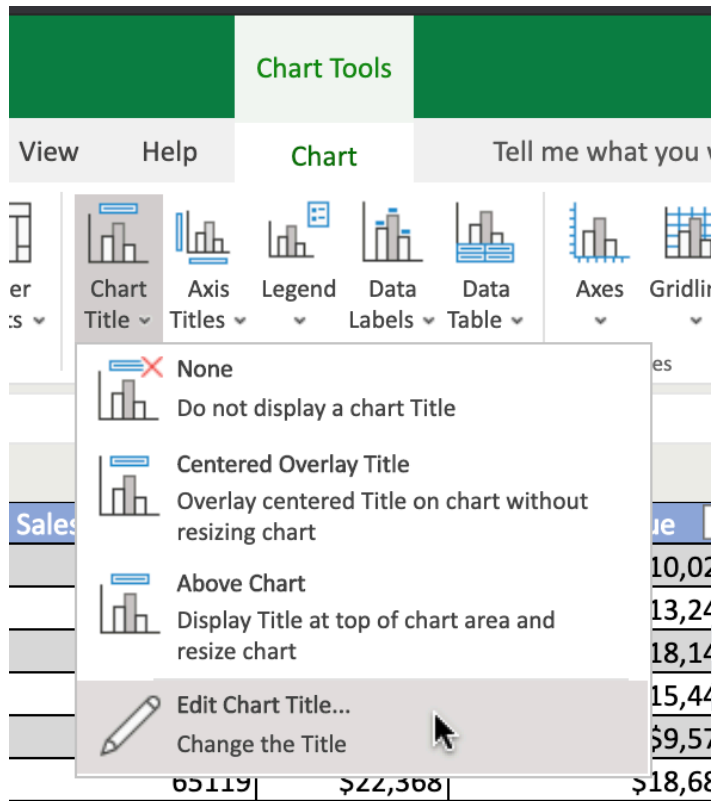
6. On the **Charts** group of the **Insert** tab, click **Column** Chart and choose **Clustered Column** from the **2-D Column** category.

The screenshot shows the Excel ribbon with the **Insert** tab active. The **Column** chart type is selected, and the **2-D Column** category is expanded. The **Clustered Column** chart type is highlighted. A tooltip is displayed over the **Clustered Column** option, stating: "Clustered Column. Compare values across categories by using vertical rectangles. Use it when the order of categories is not important or for displaying item counts such as a histogram."

Model	Power Perf Factor	Unit Sales	Resale Value	Retention
Corolla	47.96897242	108	\$10,025	
Camry	54.37241965	247994	\$17,518	\$13,245
Avalon	84.91189826	63889	\$15,645	\$18,140
Celica	56.49603034	33269	\$16,875	\$15,445
Tacoma	55.29711658	34087	\$11,325	\$5,575
Sienna	78.02721947	65119	\$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...**

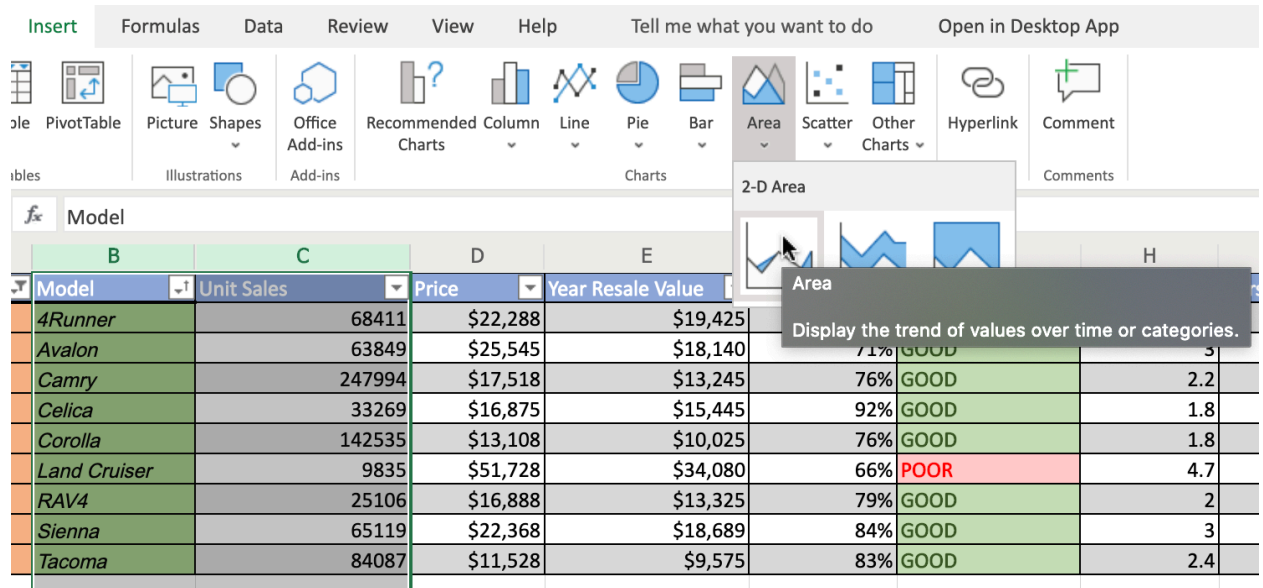


9. In the text input area of the dialog box **Edit Title**, write **“Power Perf Factor of Toyota Cars”** and click **OK**.

Task B : Create an Area Chart

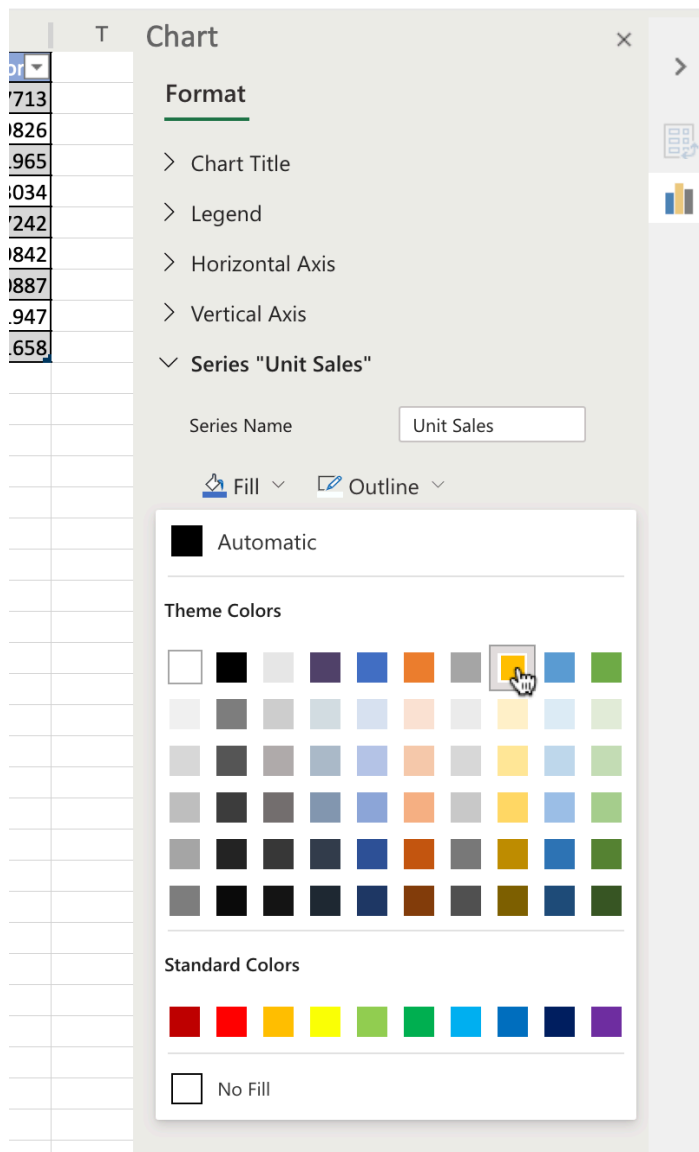
1. Switch to the worksheet named **Area Chart**.
2. Click the **filter drop-down** in column **A (Manufacturer)**, and select **Filter...**
3. In the list, only select **Toyota** and click **OK**.
4. Select column **B**, then hold **SHIFT** and select column **C**.

5. On the **Charts** group of the **Insert** tab, click **Area** Chart and choose **Area** from the **2-D Area** category.



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**.



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...**

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**.

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**.

Link to completed work

Please download this file for beter accessibility as the hyperlinks doesnt work in Github.

- <https://1drv.ms/x/c/e9e9f77ba9bf99d2/IQCBkt6g3XBZTN0fDfhKXO4AWu73p-52kQvanV7tG41cnE?e=1F8USU>