**The laboratory work 13**

Let's start with an easy one. You want to show VanArsdel's sales (revenue) and units for each month and year in a single report. You choose to show this using two Matrix visualizations.

1. Start with the “[Lab 3 - Starting.pbix](https://github.com/MicrosoftLearning/Analyzing-Visualizing-Data-PowerBI/raw/master/Lab3/Lab%203%20-%20Starting.zip)” file.
2. In the navigation pane on the left, click **Report**.
3. In the **FIELDS** list, on the right, click the **Sales** table.
4. Drag the **Total Sales** field from the **Sales** table to the report to create a chart.
5. In the **FIELDS** list, on the right, click the **Date** table.
6. Drag the **MonthName** and **Year** fields from the **Date** table to the chart.
7. In the **VISUALIZATIONS** list, click **Matrix**.
8. In the **VISUALIZATIONS** list, in **Rows**, select **MonthName**, in **Columns**, select **Year**, and in **Values**, select **Total Sales**.
9. Repeat Step 5 to 10 to add another chart, but this time, display the Total Units field in place of Total Sales.
10. From the **Home** ribbon, click **Text box**.
11. In the text box, type **VanArsdel Sales and Units** and resize and move the text box so that it appears as the title of the report.
12. At the bottom of the screen, right-click **Page 1**, and click **Rename Page**.
13. Type **Sales and Units** and press Enter.

You should have something similar to the below:


1. Click **Save**, to save the Power BI file.

**Exercise 7**

Now that you have the big picture, let's start analyzing the data sales data by product category, segment and manufacturer.

1. If it is not already open, open the **Lab 3 - Starting.pbix** file.
2. Create a new report page by clicking **New Page (+)** at the bottom of the report view.
3. Drag the **Total Sales** field from the **Sales** table to the report and create a chart.
4. Drag the **Category** and **Segment** fields from the **Products** table to the chart.
5. In the **VISUALIZATIONS** list, click **100% Stacked Bar Chart** .
6. In the **VISUALIZATIONS** list, in **Axis**, select **Category**, in **Legend**, select **Segment**, and in **Value**, select **Total Sales**.
7. In the **VISUALIZATIONS** list, click the **Format** button.
8. Click **Data Labels**.
9. Set **Data Labels** to **On**.
10. Set **Value decimal places** to **0**.
11. Drag the **Total Sales** field from the **Sales** table to the report and create another chart.
12. Drag the **Manufacturer** field from the **Manufacturers** table to the chart.
13. Modify the chart to use the **Treemap** visualization.
14. Drag the **MonthName** field from the **Date** table to the report and create another chart.
15. Modify the chart to use the **Slicer** visualization.
16. Drag the **Year** field from the **Date** table to the report and create a chart.
17. Modify the chart to use the **Slicer** visualization.
18. Rename the report sheet to **Sales Breakdown**.
19. Click **Save**, to save the Power BI file.

You should have something similar to the below:



**Exercise 8**

You would like to know more about the relationship between total units and total sales by category and segment. You choose to analyze this using scatter chart.

1. If it is not already open, open the **Lab 3 - Starting.pbix** file.
2. Create a new report page by clicking **New Page** at the bottom of the report view.
3. In **VISUALIZATIONS**, click **Scatter Chart**.
4. Drag the **Total Sales**, **Total Units**, and **YTD Sales** fields from the **Sales** table to the chart.
5. Drag the **Category** and **Segment** fields from the **Products** table to the chart.
6. Drag the **Year** field from the **Date** table to the chart.
7. Rename the report sheet to **Sales Relationship**.
8. Ensure that the following fields are set in the visualization Details:
	* **Details**: Category
	* **Legend**: Segment
	* **X Axis**: Total Sales
	* **Y Axis**: Total Units
	* **Size**: YTD Sales
	* **Play Axis**: Year
9. Click **Save**, to save the Power BI file.

You should have something similar to the below:
