# **Power BI Guidance**

**Step 1: Install Power BI**

* **Download Power BI Desktop:** Go to [Power BI Desktop](https://powerbi.microsoft.com/desktop/) and click **Download**.
* **Install Power BI Desktop:** Follow the on-screen instructions to install Power BI.
* **Launch Power BI:** Once installed, open Power BI Desktop. You'll see a blank workspace.

**Step 2: Connect to a Data Source**

* **Get Data:** Click on **Home > Get Data** on the ribbon (the top menu bar).
* **Choose Data Source:** Power BI supports many data sources, such as Excel, CSV, SQL databases, and more. If you have a simple Excel file, select **Excel**.
  + **Example:** If you choose Excel, select the file on your computer and click **Open**.
* **Load the Data:** A Navigator window will pop up showing tables or sheets. Select the one you want to visualize and click **Load**.

**Step 3: Clean and Prepare Your Data**

* **Skip this if your data is clean!**
* If you want to clean the data (remove empty columns, rename fields, etc.), click **Transform Data** after loading.
  + In the **Power Query Editor** that opens:
    - Remove columns you don’t need by right-clicking and selecting **Remove**.
    - Rename columns by double-clicking the column name.
* **Close & Apply:** Once you're done with transformations, click **Close & Apply** to load the data into Power BI.

**Step 4: Understand the Power BI Interface**

* **Fields Pane:** Shows the data fields you imported. You will use these fields to create your charts.
* **Visualizations Pane:** Shows different chart types (bar charts, pie charts, tables, etc.). You can choose the chart you want here.
* **Report Canvas:** This is where your charts and visuals will appear. You can drag fields from the **Fields Pane** and drop them here.

**Step 5: Create Your First Visual**

* **Select Chart Type:** In the **Visualizations Pane**, click on a chart type (for example, a **Bar Chart**).
* **Add Data to Chart:**
  + Drag a **Category** field (e.g., "Product Name") from the **Fields Pane** to the **Axis** area under your chart.
  + Drag a **Numerical** field (e.g., "Sales") to the **Values** area.
  + Now your chart will display a bar chart of product names vs. sales.

**Step 6: Format Your Visualization**

* **Customize Appearance:** Click on your chart to select it, then go to the **Format Pane** (paint roller icon).
  + Change colours, axis labels, chart titles, or add data labels to make it more readable.
  + For example, click **Title** under the Format Pane and change the chart title.

**Step 7: Add Filters**

* **Add a Filter:** You can filter data to focus on specific aspects.
  + Click on the chart you want to filter.
  + Drag a field from the **Fields Pane** to the **Filters Pane**.
  + Adjust the filter settings (e.g., only show sales from 2023).

**Step 8: Add Slicers for Easy Filtering**

* **Add a Slicer:** A slicer is an interactive filter that allows users to filter data by selecting criteria.
  + Go to the **Visualizations Pane** and click the slicer icon (it looks like a filter).
  + Drag a field (e.g., "Region") to the slicer. Now users can filter by region interactively.

**Step 9: Create a Dashboard with Multiple Visuals**

* **Add Multiple Charts:** You can create multiple charts (bar charts, pie charts, etc.) on one report page to build a dashboard.
  + Click another chart type in the **Visualizations Pane** and repeat the process of dragging fields into the appropriate areas.
  + Resize and arrange your visuals by dragging them around the canvas.

**Step 10: Save and Publish Your Report**

* **Save Your Report:** Click **File > Save** and save your report to your computer.
* **Publish to Power BI Service:** If you want to share your report with others, click **Home > Publish** to upload your report to the Power BI cloud service.
  + You can share the link with others or embed it into websites.

**Step 11: Explore More Features**

* **Cross-Filtering Between Charts:** Power BI automatically links your charts. For example, clicking on a bar in one chart will filter the data in another chart.
* **Drill-Down Functionality:** Some charts allow you to drill down into more detailed data. Right-click a chart and choose **Drill Down** to explore lower levels of data.

**Step 12: Learn by Practicing**

* **Practice with Sample Data:** If you don’t have your own data, Power BI offers sample datasets. Use these to practice creating visuals and dashboards.
  + To access this, go to **File > Open Report > Samples** and choose any dataset.