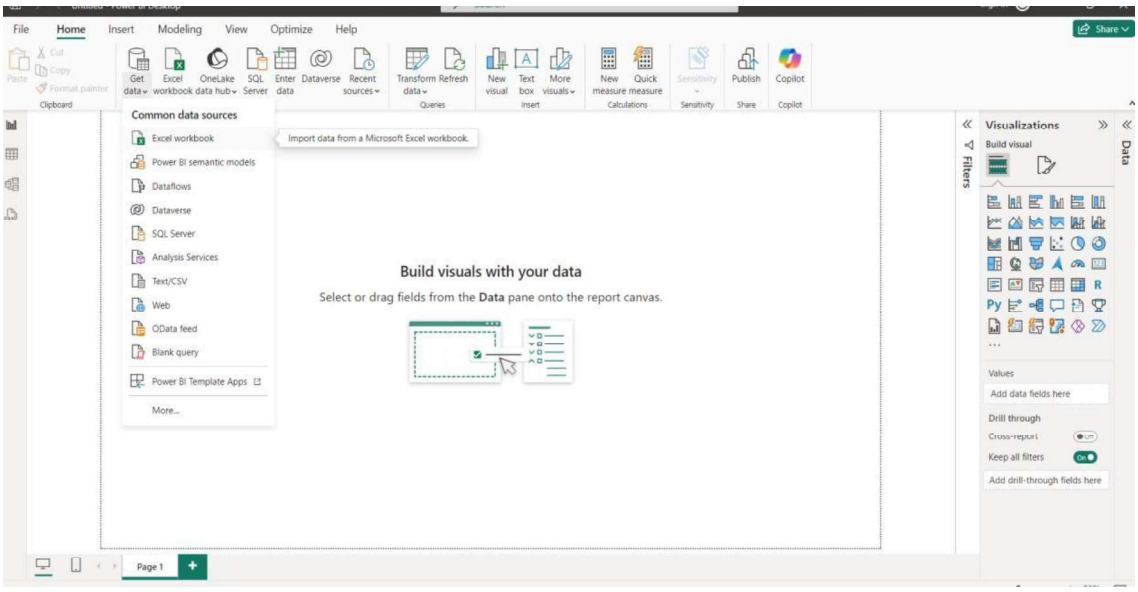
Program 7 : Creating Reports & Visualizations - Different types of charts, Formatting charts with Title, Colors

17 Most Common Charts available in Power BI:

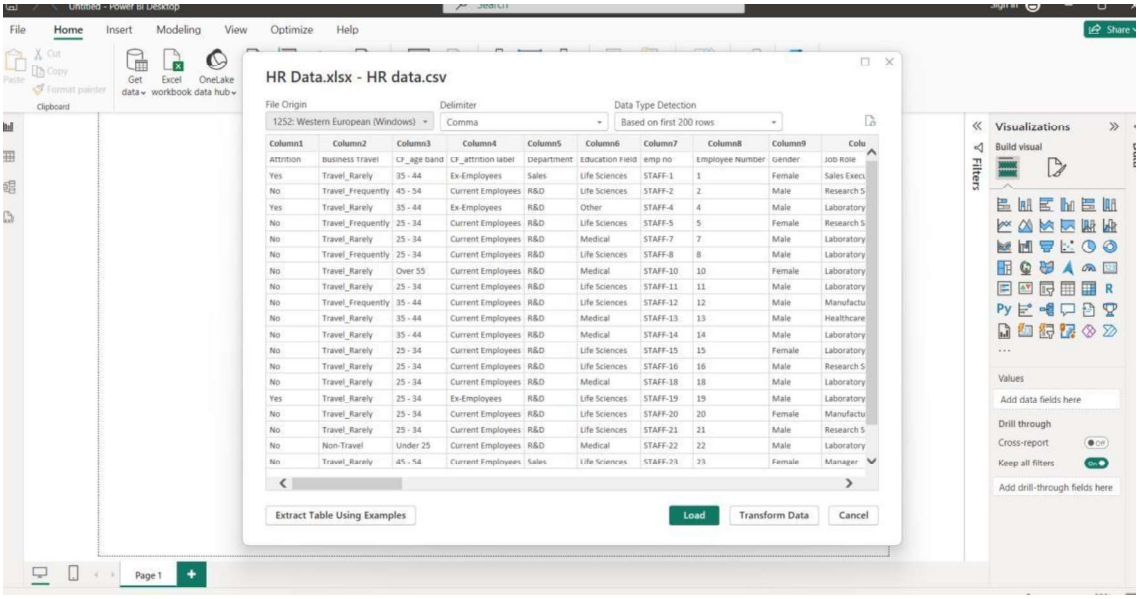
- Bar Chart
- Line Chart
- Scatterplot
- Sparkline
- Pie Chart
- Gauge
- Waterfall Chart
- Funnel Chart
- Heat Map / Matrix
- Histogram
- Box Plot
- Maps
- Tables
- Indicators
- Area Chart
- Radar or Spider Chart
- Tree Map

- Open **Power BI Desktop**
- Click on **Get data** in ribbon pane
- Click on **Excel worksheet** option

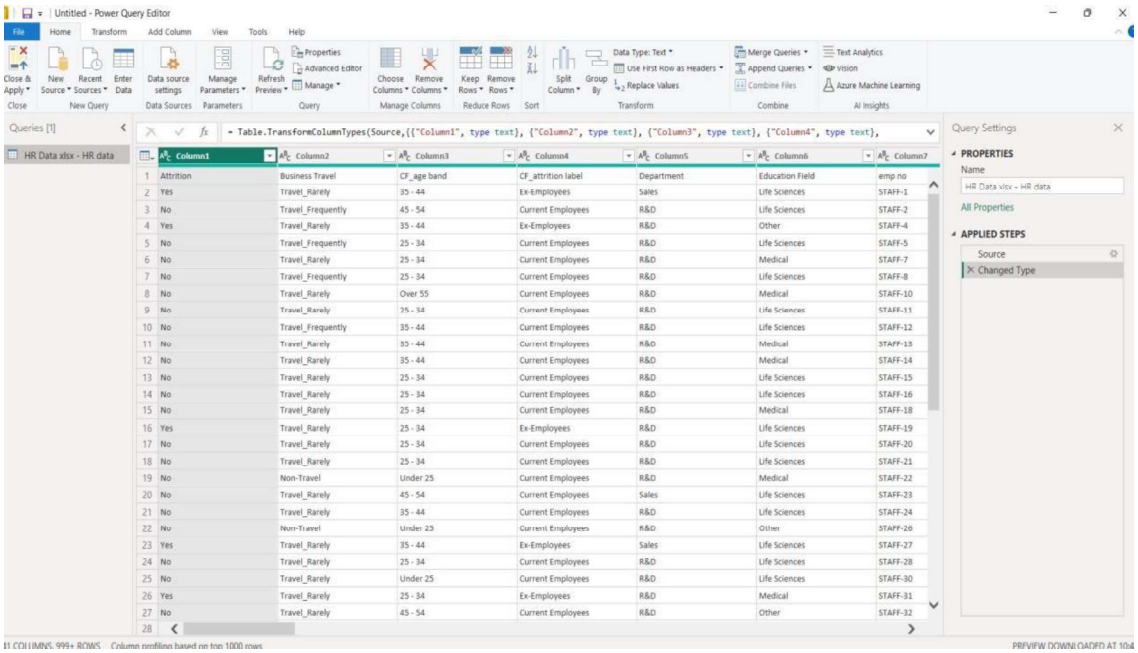


- Choose specific dataset and open it. Example: HR Data.csv
- Click on **Transform Data** button

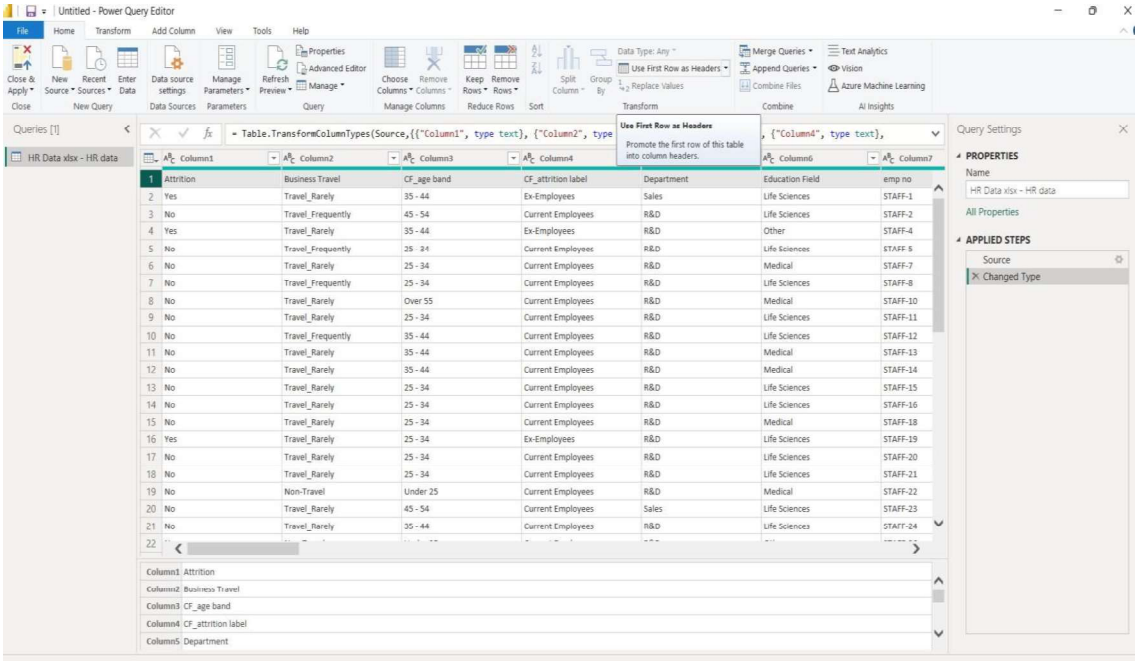
.



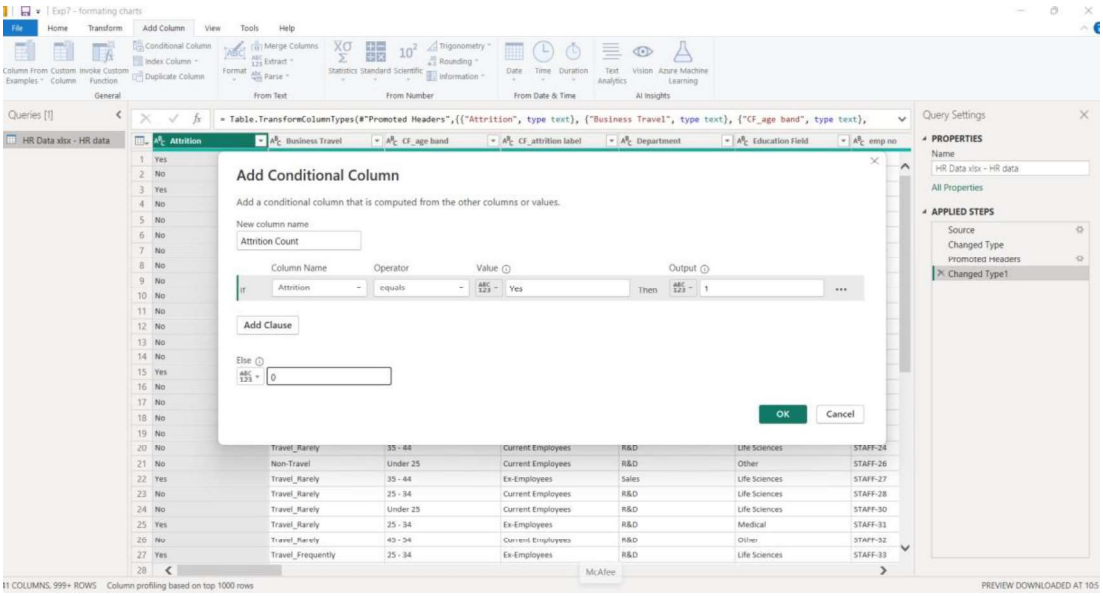
- **Power Query Editor** window will open.



- We have to perform some transformation on this table
- Select row 1 and click on **Use first row as header**



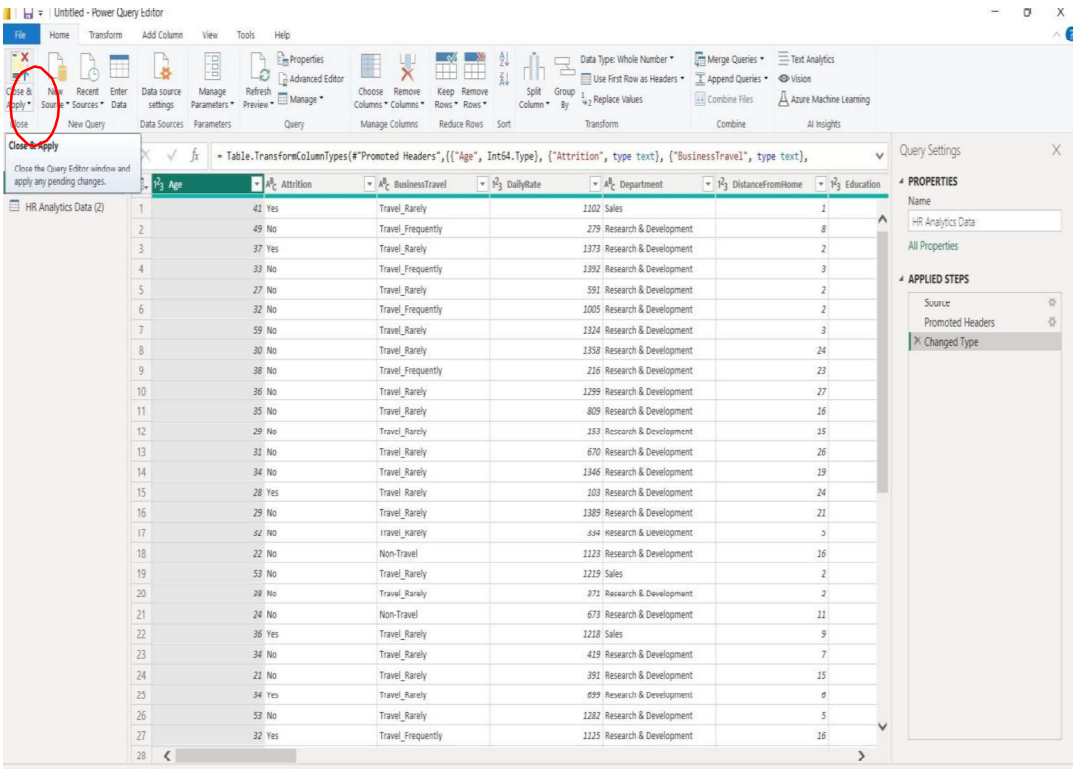
- Then, we have to create new column for **attrition count.** For this, select attrition column click on **Add Column** □ new window will open then add details as follows. Once youare done with this, attrition count column will be added as a last row of the table
- Change the datatype of this column to **whole number**



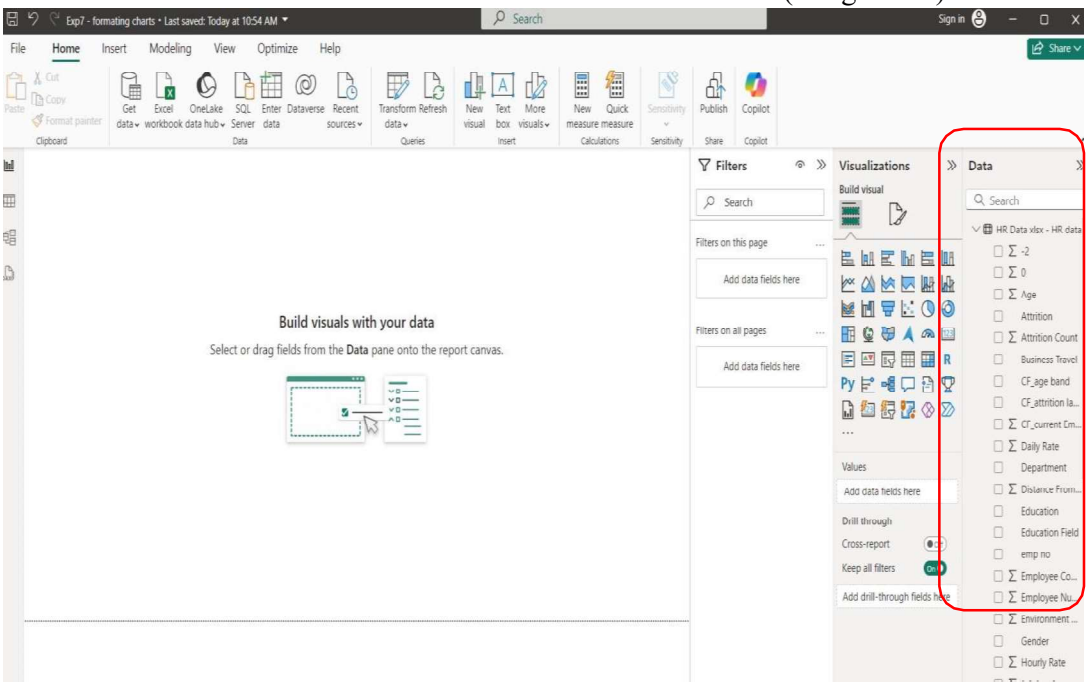
- Click on **Close & Apply.**

Click on

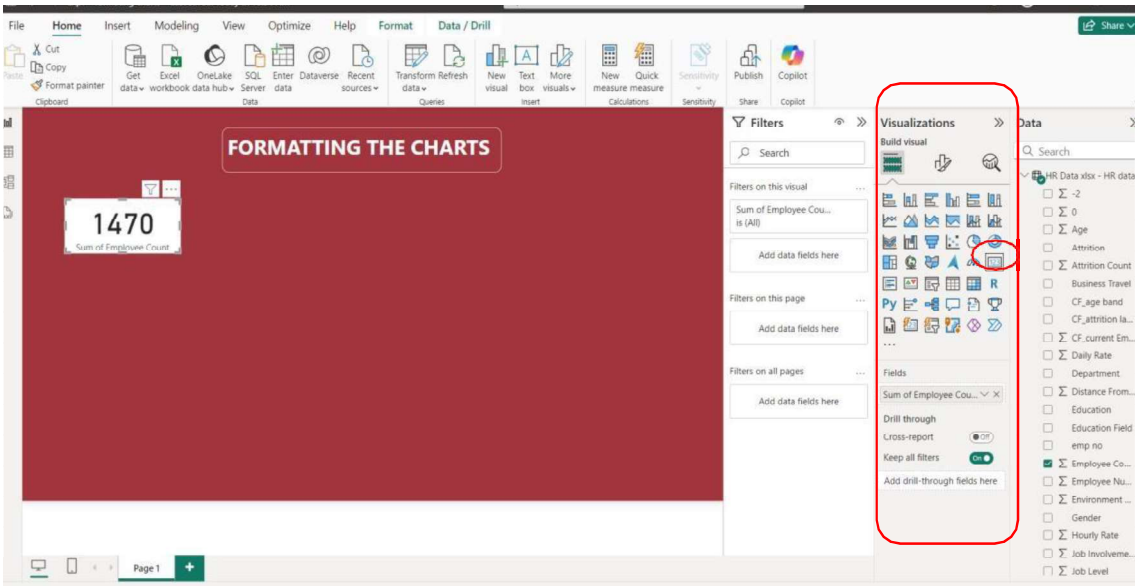
"Close & Apply"



- You will be back on canvas area with table loaded in **Data Pane** (in right side).

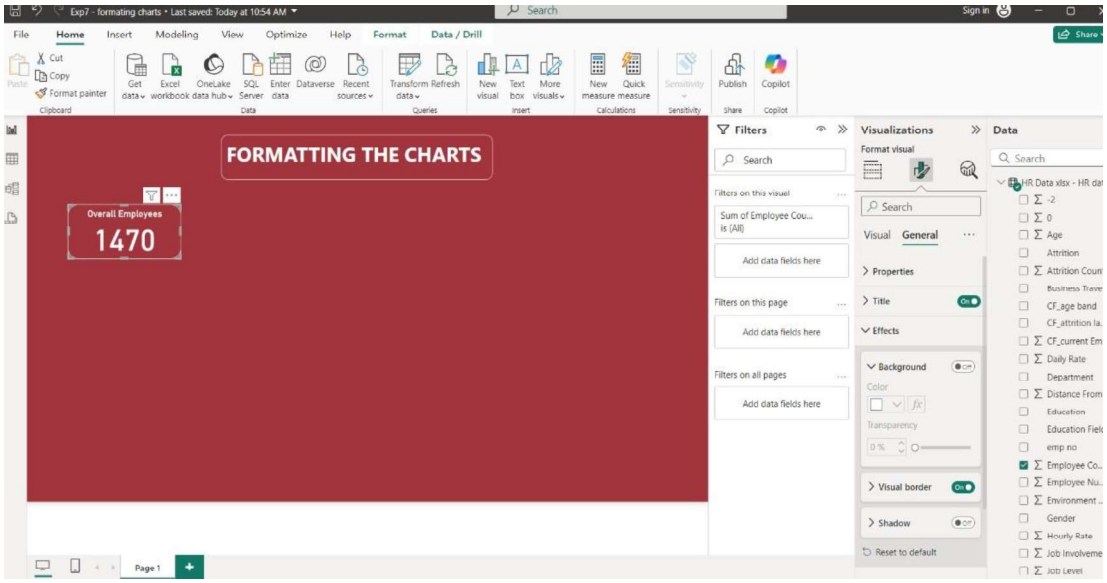


- We will start with **KPI Chart**
- A Key Performance Indicator (KPI) is a visual cue that communicates the amount of progress made toward a measurable goal



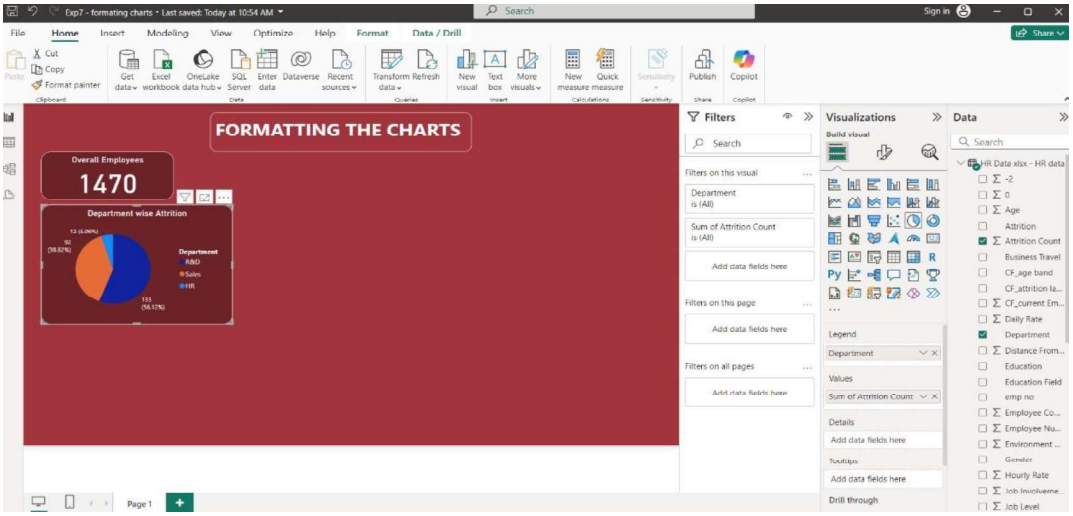
Now format this particular visual with title, size, colour.

1. Click on “Format your visual” in **Visualization Pane**
2. Go to General tab
    a. click on Title □ type “Overall Employees” in Text box, Horizontal alignment and colour of your choice
    b. expand effects □ **OFF** the background of KPI chart
    c. Effects □ **ON** visual border □ change the color and 20 rounded corners
3. Now, go to Visual tab □ **OFF** the category label
4. In visual tab, callout value □change the font color

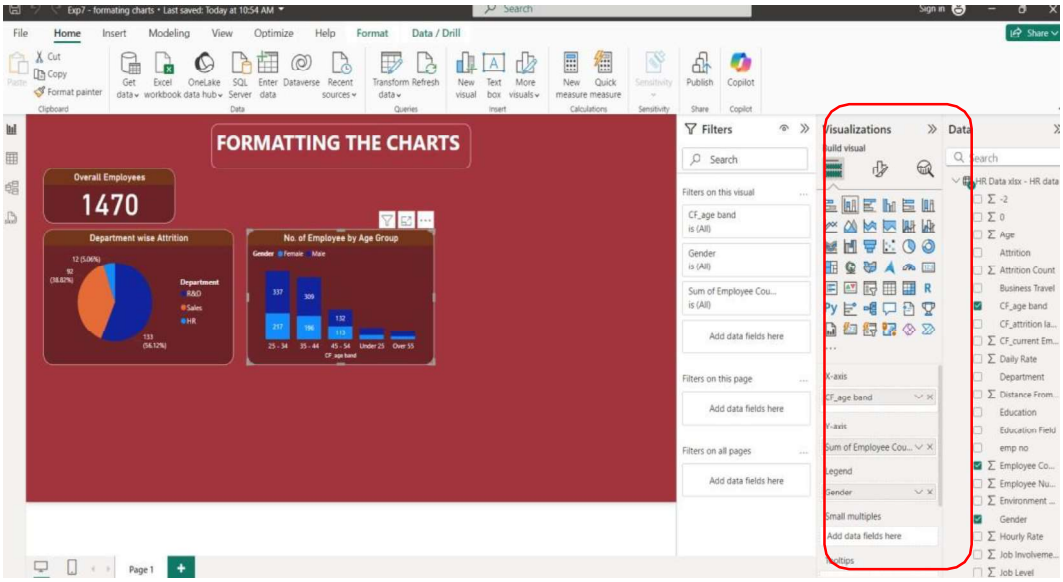


Kindly Note: If you want same format for all visuals, complete the formatting with one of the visual, click on format painter and click on the visual for which you want the formatting. Little bit formatting will be required as properties for each visual will be different

Select **Pie Chart.**



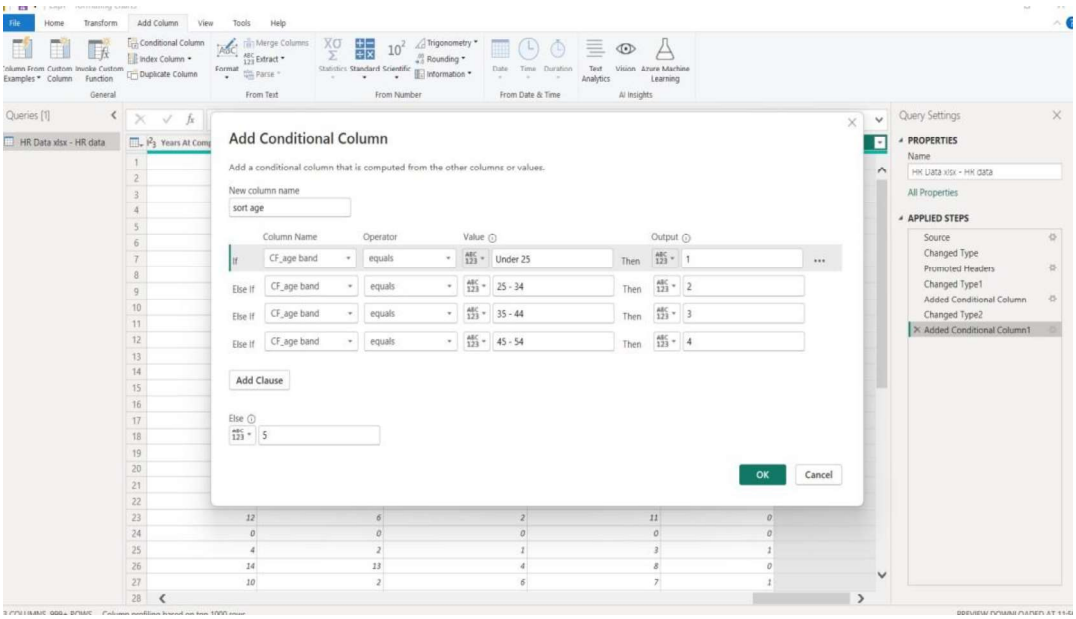
- Now apply same steps for creating **STACKED COLUMN CHART.**
  A column chart, commonly referred to as a vertical bar graph, is a visual tool utilized to display and compare numerical data across different categories. Each column within the chart corresponds to a specific category, with the height of the column proportionally representing the associated value.



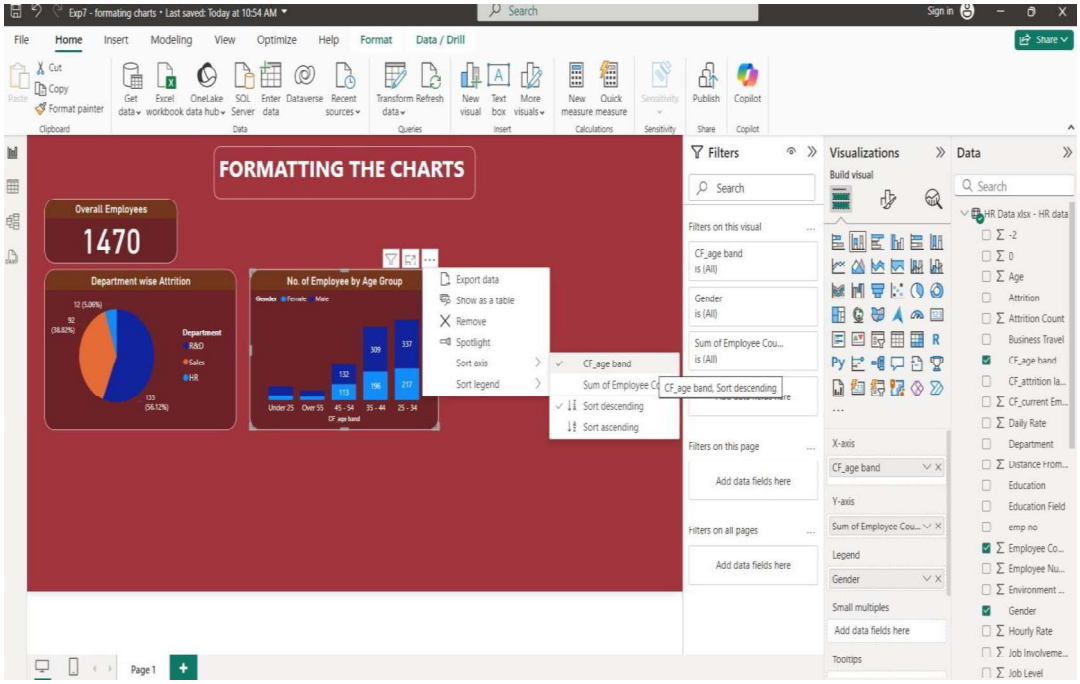
Optional: As you can see, age is not sorted correctly, so we have to create additional column.

Once **sort age** column is created change the datatype of column if its not in whole number.

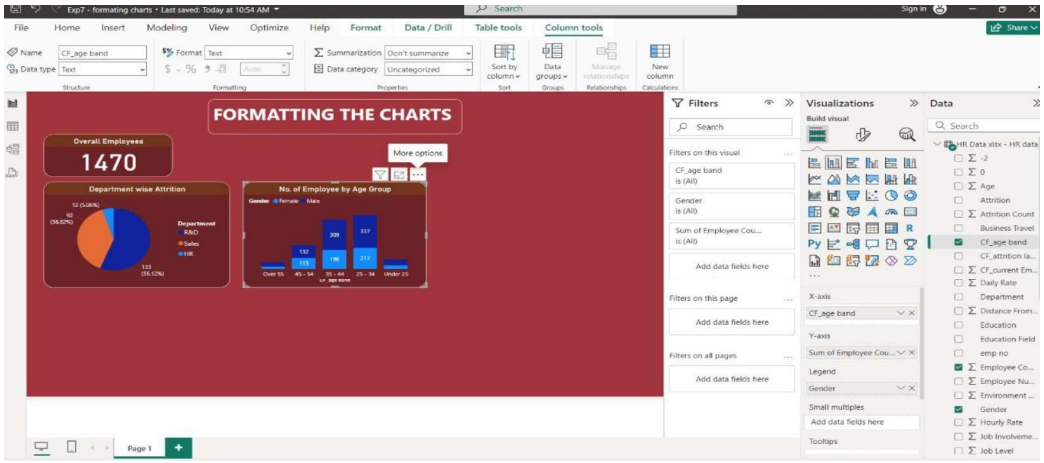
Click on **"Close & Apply"**



Now, on canvas, in data pane □ select CP_age_band □ click on sort by column □ select newly created column sort age and now
click on visual and follow the steps, Finally, output will be as follows:



Finally, output will be as follows

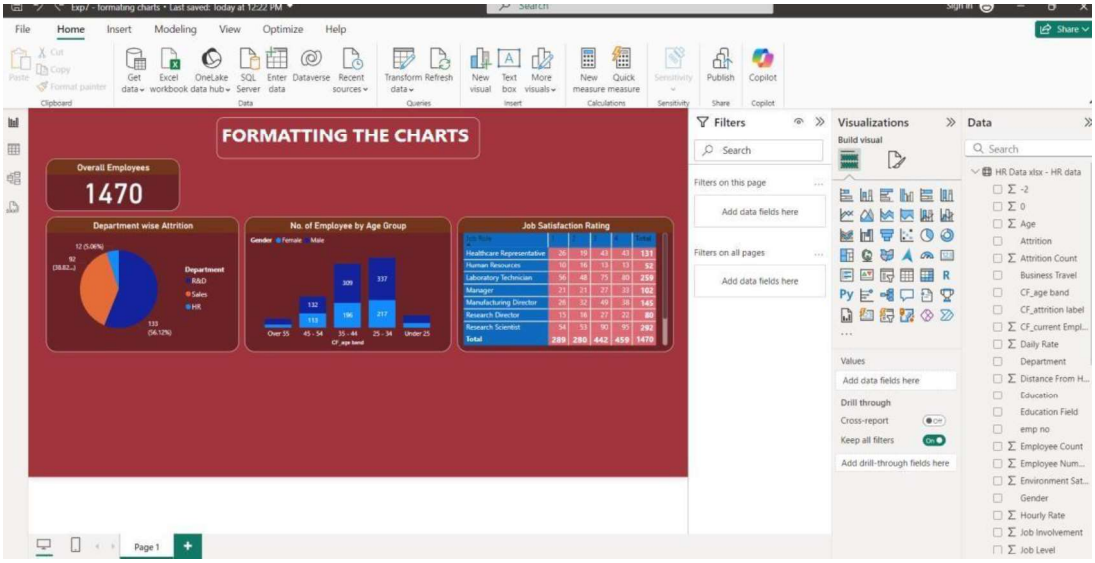


:

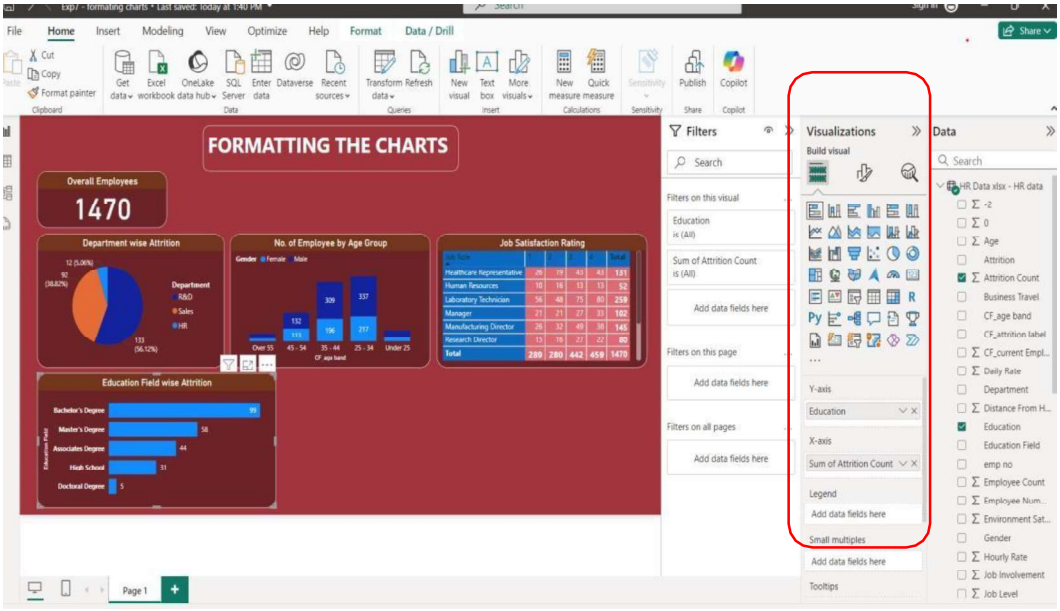
Now apply same steps for creating **MATRIX.**

The matrix visual is a type of table visual that supports a stepped layout. A table supports two dimensions, but a matrix makes it easier to display data meaningfully across multiple dimensions. Often, report designers include matrixes in reports and dashboards to allow users to select one or more element (rows, columns, cells) in the matrix to cross-highlight other visuals on a report page.

Format the row header & column header text color & background color
Also, format the **Row grand total & column grand total**



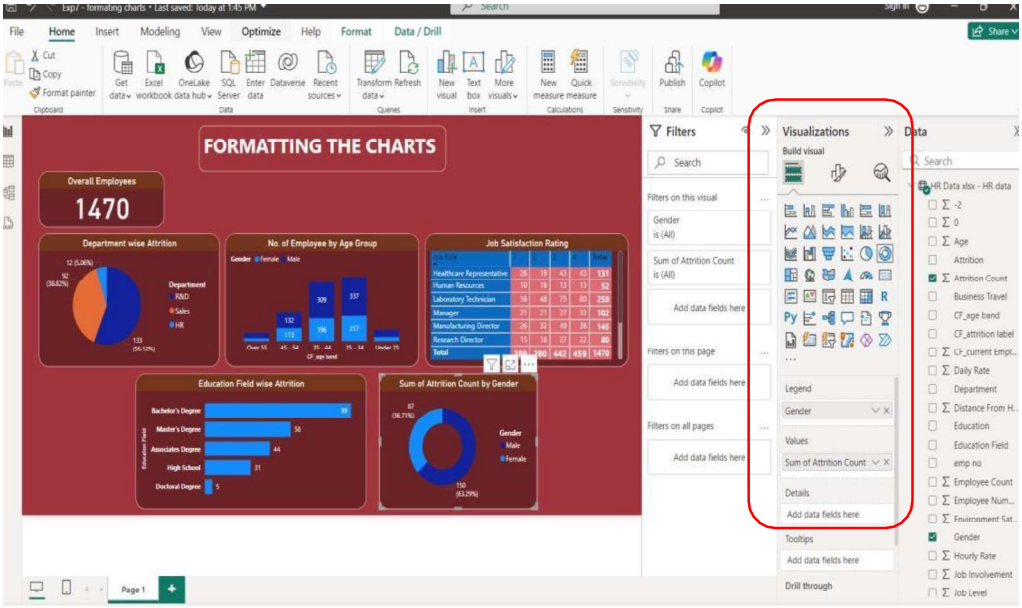
Now apply same steps for creating **Stacked Bar Chart.**



Now apply same steps for creating **Donut.**

A doughnut chart is similar to a pie chart in that it shows the relationship of parts to a whole. The only difference is that the center is blank and allows space for a label or icon.

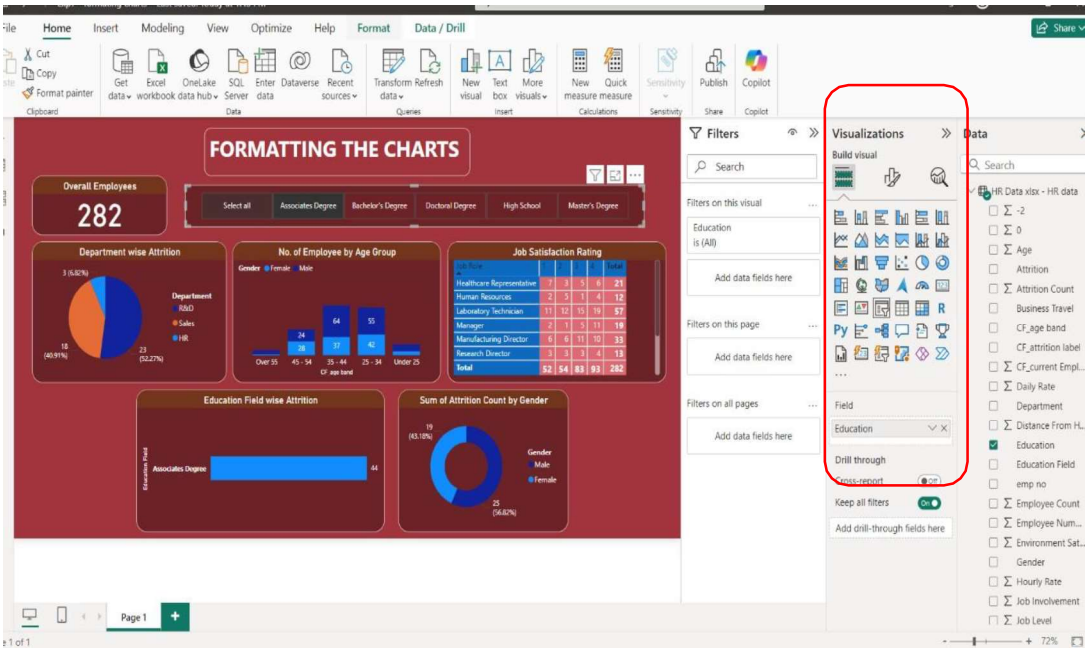
Doughnut charts work best when you use them to compare a particular section to the whole, rather than comparing individual sections with each other.



Slicers: A slicer is a standalone chart that can be used to filter the other visuals on the page. Slicers come in many different formats (category, range, date, etc.) and can be formatted to allow selection of only one, many, or all of the available values.

Slicers are a great choice to:

- Display commonly used or important filters on the report canvas for easier access.
- Make it easier to see the current filtered state without having to open a drop-downlist.
- Filter by columns that are unneeded and hidden in the data tables.
- Create more focused reports by putting slicers next to important visuals.



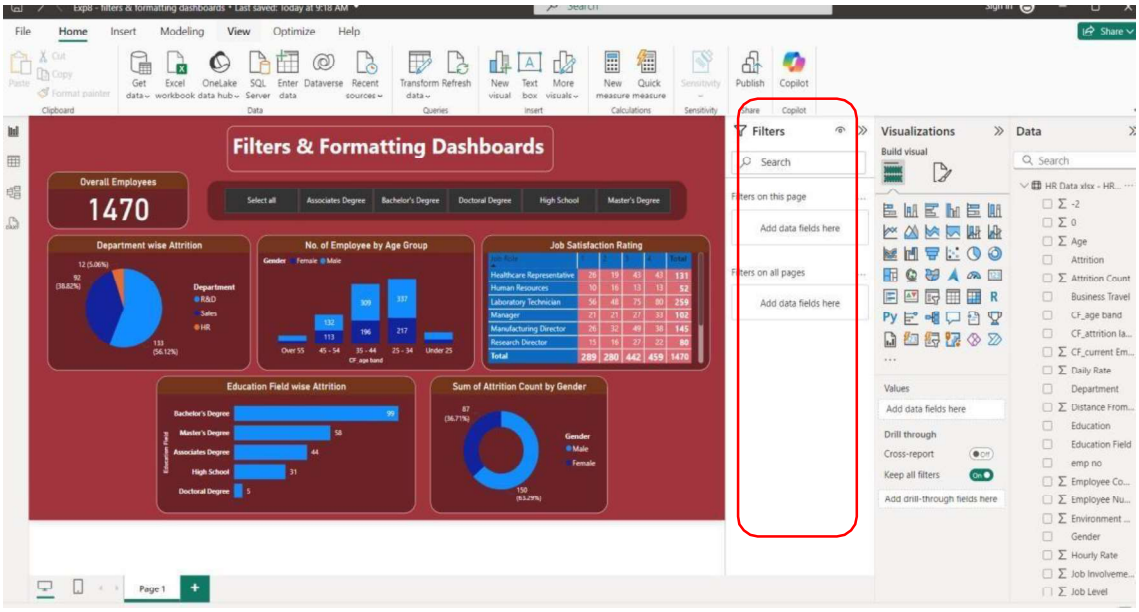
Program 8: Dashboards - Filters in Power BI, Formatting dashboards

***Filters* remove all but the data you want to focus on.**

Filter Pane: You can apply filters in the Filters pane, or make selections in slicers directly on the report page itself. The Filters pane shows the fields in individual visuals and any other filters the report designer adds.

There are four standard types of filters that you create in the Filters pane.

- **Visual filter** applies to a single visual on a report page. You see visual-level filters when you select a visual on the report canvas. Even if you can't edit a report, you can select a visual and filter it.
- **Page filter** applies to all the visuals on the report page.
- **Report filter** applies to all pages in the report.
- **Drill through filter** With drill through in the Power BI service and Power BI Desktop, you create a *destination* report page that focuses on a specific entity, such as a supplier. From the other report pages, users can right-click a data point for that entity and drill through to the focused page.



We will be using HR dataset (same used for Exp 7).

Extending same dashboard with using filters & let's format the final dashboard.

Let's apply filter for department (Particular visual).

1. Drag Department from Data Pane to Filters Filters on this page textbox. BasicFiltering
2. Now, you can see, HR dept. is selected and now in below picture, you can see that only HR data is visible, whereas, R&D and Sales data will not be shown.