

# Data Science and Analytics (IT3080)

## B.Sc (Hons) in IT (IT Specialization)Year 3

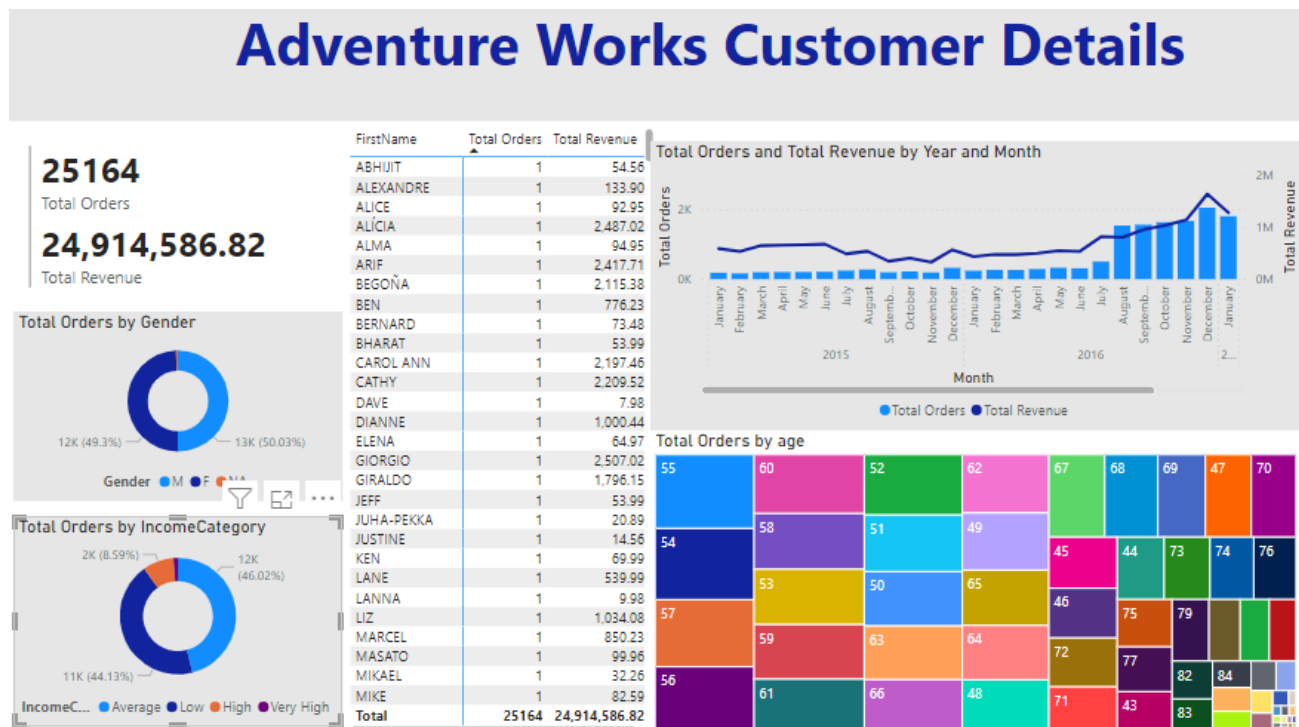


### Lab Sheet 08

### Data Visualization

### Power BI Desktop – Data Visualization

In this section, you create a professional report for the benefit of you and your entire team. At the end of this section, you will build a report like the one shown in the screenshot below.



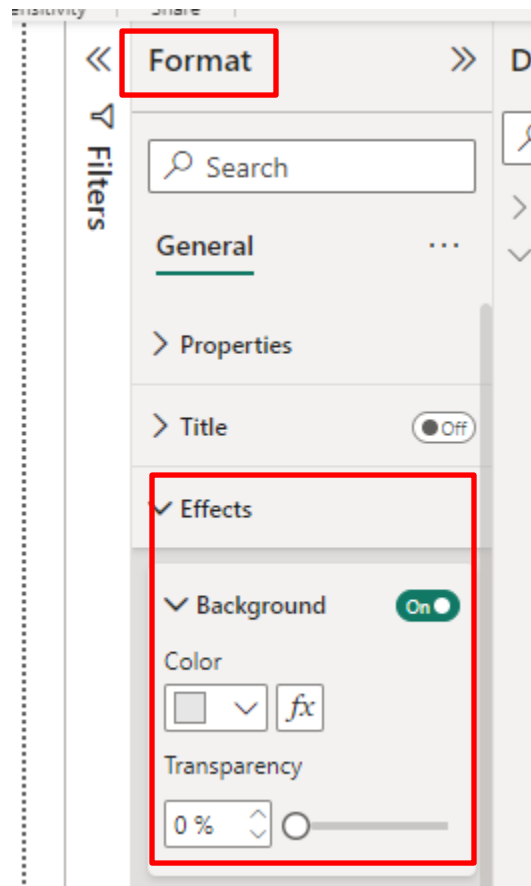
Now let's get started, we will pick up where we left off at the end of Lab sheet 7. Let's add a report title first.

1. From the ribbon, click **Home** and then click **Text box**. Notice a text box visual is added.
2. **Resize** the visual as needed.
3. Enter **Adventure Works Customer Details** in the text box.
4. Highlight **Adventure Works Customer Details** to format the text.

5. Select **Segoe (Bold)** as the **font**.
6. Select **36** as the **font size**.
7. Resize the text box as needed.

## Adventure Works Customer Details

8. To add a background color, select the **title**. Then under **Format** click on the **Effects**. Select a background color.



Add the tiles gained from the previous lab sheet. Your report should look as shown in the figure above. Now let's finish up by saving the file.

### **Activity 01: Load Sales data set to Power BI and create the following data visualizations.**

1. Create the following data visualization charts
  - a. Display the sales by country using a column chart
    - i. Change the color of the data columns to purple.
    - ii. Draw a line to mark the average sales.
  - b. **Sales and Profit by month**
    - i. Display sales and profit for each month in a stacked area chart
    - ii. Sort the values in the ascending order
    - iii. Display the data in the order of months
    - iv. Display the records only for the first 4 months of the year
    - v. Display maximum sales and maximum profit of each month in the graph
  - c. **Sales by product**
    - i. Display the sales by product in a funnel
    - ii. Display the records in the ascending order of sales
    - iii. Display the average sales records by product
    - iv. Display the products with average sales records more than 165000
    - v. Arrange the records in ascending order and give separate colors for each product
  - d. **Sales and profit by segment**
    - i. Display sales and profit by segment in a bar graph
    - ii. Mark the minimum profit level in the graph and display its value
    - iii. Display the minimum sales level and its value in another color
2. Create all the charts in the same page. Add an appropriate title.

### **Activity 02**

Your manager wants to see a report on your latest sales figures. They've requested an executive summary of:

- Which month and year had the most profit?
- Where is the company seeing the most success (by region)?
- Which product and segment should the company continue to invest in?

Build a report with a title, three visuals, and a slicer

