CSCE 5320 Scientific Data Visualization

ICE-1

# Introduction to Tableau

**Using the given dataset**

1. We start by adding a new sheet.

Graphical user interface, text, application, email

Description automatically generated

1. Firstly, we add the sales type data in the rows shelf, which displays the two sales types Domestic and International in a table.

Graphical user interface, text, application, email

Description automatically generated

1. When we add sales cost in the column shelf, it shows the sum of sales cost for both domestic and international sales types. Here we can see that the total sales cost is around 38K and 44K for domestic and international sales, respectively.Graphical user interface, text, application, email

   Description automatically generated
2. We add channel type to color marks. The channel types, Post (Red color), Online (Orange color), and Domestic (Blue color) are marked for both domestic and international sales types. This helps in visualizing the data better.

Graphical user interface, text, application

Description automatically generated

From the above chart, we can observe the sales costs of different sales types with respect to the channel types. The colors indicate the channel types (Post, Online, and Domestic). Here we are trying to visualize the sales data based on the types of sales, i.e., domestic, or international, and the channel type used for the sales. For example, the sales cost for domestic sales with channel type Post is around 18K.

**Using the given dataset**

1. We start by adding a new sheet.

Graphical user interface, text, application

Description automatically generated

1. Firstly, we add the department in the rows shelf, which displays the four departments Accounting, Audit, Finance, and Sales in a table.

Graphical user interface, text, application, email

Description automatically generated

1. Secondly, we need to add sales types to the rows shelf, which adds two sales types domestic and international within the existing four departments Accounting, Audit, Finance and Sales in a table.

Graphical user interface, text, application, email

Description automatically generated

1. When we add sales cost in the column shelf, it shows the sum of sales cost for both domestic and international sales types within the existing four departments Accounting, Audit, Finance, and Sales. Here we can see that the total sales cost is around 12.5K and 15K for domestic and international sales types, respectively in the accounting department.

Graphical user interface, application

Description automatically generated

1. We add the Item Category to the color marks. The Item Category, Electronics (Red color), Cosmetics (Orange color), and Cellular (Blue color) are marked for both domestic and international sales types within each department.

Graphical user interface

Description automatically generated with low confidence

From the above chart, we can observe the sales costs of different sales types within each department. The colors indicate the item category (Cellular, Cosmetics, and Electronics). Here we are trying to visualize the sales cost based on the types of sales, i.e., domestic, or international, and the department with respect to an item category. For example, the total sales cost is around 12.5K and 15K for domestic and international sales types, respectively in the accounting department.

1. On the top right side, we click on “Show me” to select various visualization.

Below is another way to visualize the sales type, item category, department and sales cost data. Chart, bar chart

Description automatically generated

From the above chart, we can observe the trends in the sales cost for sales types domestic and international. Each sales type is further divided into different departments and categorized based on item category (Cellular, Electronics, and Cosmetics) which are color marked. Red color indicates Electronics, Orange color indicates Cosmetics and Blue indicates the Cellular item category.

Graphical user interface, text, application, email

Description automatically generated