**22UPCSC1E06 Industry Dynamic Technology (Data Visualization) Lab Credits : 2**

**Course Objectives**

• To learn the basic functions and operations of Excel and tableau

* To explore to design, build, and deploy various charts for applications,
* To comprehend, design and deploy the label and heat map
* To understand and deploy dashboard
* To understand the functions of tableau for data process.

**List of Programs**

Note: Use the following Dataset

<http://www.tableau.com/sites/default/files/training/global_superstore.zip>

Implement the following using Excel

1. Create Pie chart for Sales and Sales % by Country (sorted in descending order)
2. Create Bar chart for Sales by Country by Year (rounded to nearest thousand and sorted by Grand Total)
3. Create Line char for Sales by Ship Mode (First Class, Same Day, Second Class and Standard Class)
4. Create Scatter chart for Sales by Ship Mode by Country (rounded to the nearest dollar and sorted by First Class)
5. Create heat map for Sales by Category by Sub-Category (in thousands and sorted by sales value in descending order)
6. Design and create the label for vendor list
7. Design and create the dash board

Implement the following using Tableau

1. Sales by Ship Mode (First Class, Same Day, Second Class and Standard Class)
2. Sales by Ship Mode by Country (rounded to the nearest dollar and sorted by First Class)
3. Sales by Category by Sub-Category (in thousands and sorted by sales values in descending order)

**Course Outcomes**

On the successful completion of the course, students will be able to:

|  |  |  |
| --- | --- | --- |
| CO1: | Enable to create and apply Spread sheet and Tableau for various data processing | K1-K6 |
| CO2: | Gains knowledge to create and design various visualization tools in Excel and Tableau. | K1-K6 |
| CO3: | Comprehend, create and deploy labels and heat map. | K1-K6 |
| CO4: | Enable to create and apply dashboard for various data processing | K1-K6 |
| CO5: | Illustrate and apply data visualization tool for any data set | K1-K6 |

**K1- Remember, K2- Understand, K3- Apply , K4- Analyze, K5- evaluate and K6- Create**

**Mapping with Programme Outcomes:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| CO1 | S | S | M | L | M | S | - | - | - | - | - | - |
| CO2 | S | M | S | S | S | M | - | - | - | - | - | - |
| CO3 | S | S | S | S | S | S | - | - | - | - | - | - |
| CO4 | S | M | M | S | M | L | - | - | - | - | - | - |
| CO5 | M | S | M | L | S | M | - | - | - | - | - | - |

S – Strong, M – Medium, L - Low