**Tableau Desktop: Intermediate**

**Title: Tableau Desktop: Intermediate**

**Duration:** 1 day

**Pre-requisite:** SQL and Data knowledge preferred. Tableau Desktop: Beginner course or equivalent knowledge of Tableau desktop tool. SQL installation with valid data tables (optional). Installation of Tableau Desktop trial version, 1 day before training (Free trial is only 14 days)

<https://www.tableau.com/products/desktop/download>

**Short Description: (254 characters only)**

The Tableau Desktop: Intermediate course will advance your knowledge of Tableau Desktop visualization tool with advanced connectors, features and graphs. It is a leader in the industry for visualization and easy drag and drop interface to create high quality graphs and dashboards.

**Long Description:**

The Tableau Desktop: Beginner helped us to understand what is Data Analysis & how to create multiple visualization using Tableau. This intermediate session helps the trainees to initially remember all the basic knowledge received during Beginners session. The session then deep dives into the tool and create additional graphs and reports with geographic data. The usage of map graph in the real world and how to correct the issues in the data to generate appropriate maps graph is one of the main topics we are going to discuss. We will learn to perform calculations in Tableau using the raw data sets received during analysis and simulate data analyst’s real time work in Tableau. Later we connect the Tableau tool to SQL database and learn how to extract data from single / multiple tables, use joins to analyze the data to create a better dashboard for presentation. We also view how to connect to few more data sources during the day 1 session.

During Day 2, we will learn about R programming tool (high level introduction only) and establish the connectivity between R and Tableau Desktop. We use the calculations to measure the data and perform basic operations using R’s capability. Generate graphs and dashboards using these calculated fields and verify how the changes in the data / calculation affect the reports / dashboards. One other important topic we will focus is on the Tableau Public profile we create during the training. We will use some basic data to start generating basic visualization in our Tableau Public profile, analyze how to use it effectively in real world, share few reports / graphs we generated in the class with fellow trainees. Learn about way forward to keep us busy and visible in the Tableau users world.

**Learning Objectives:**

After this course, you will be able to:

* Actively recall the basic features we learnt during Beginners training
* Understand how to create various type of reports for each type of datasets
* Perform some analytical operation and do calculations in Tableau
* Introduction to Maps / identify unrecognized co-ordinates / custom geo-coding
* Connect to SQL tables and generate reports / dashboards / story
* Brief introduction to R tool and learn its integration / benefits with Tableau
* Connect to R tool and calculate basic measures, use it to plot graph
* Learn about Tableau Public, its usage and create tableau public profile
* Create interactive data visualization in Tableau Public and publish it to the web
* Share the data visualization via email with the fellow trainees in the room

**Topic Outline:**

Day 1

* Course Introduction
* Recall the Introduction to Tableau session with the trainer
* Discuss briefly about the features & functionalities of Tableau learnt during Beginners session.
* Connect to excel datasheet, walkthrough the trainer to create a report, use all the cards we familiarized during last session
* Introduction to table calculations in Tableau Desktop
* Perform basic arithmetic calculations, data math, logic statement, string manipulation using the data sets we are analyzing
* Introduction to Maps graph and its usage
* Plot the co-ordinate points on the map and analyze multiple views
* Correct the unrecognized co-ordinates and custom geocoding
* Connect to SQL database and plot graphs using single table data
* Connect to multiple data tables, use joins, plot graphs, analyze the data and create dashboards for presentation
* Solve a real-time business problem in the class and simulate the real time working environment by yourself

Day 2

* Introduction to R programming
* Benefits for R and Tableau integration during data analysis
* Installation of R / R Serve Packages in the class
* Integration of R and Tableau
* Calculation of measures using R
* Integrated visualization using Tableau
* Generate graphs and dashboards using these calculated fields
* Verify how the changes in the data / calculation reflects in the reports / dashboards.
* Learning about Tableau Public profile creation and its benefits
* Creation of Tableau Public profile in the class
* Generate basic visualization in your Tableau Public profile
* Share the visualization in the web and via email with your fellow trainees
* Collaborate and work on the visualization in the class forming a group of 2 or more
* References and Next steps

**Structured Activity/Exercises/Case Studies:**

Day 1:

* Exercise 1 – Create Maps, plot unrecognized geo co-ordinates in the graphs
* Exercise 2 – Connect to SQL and join multiple tables to create dashboards to present (optional)
* Exercise 3 – Use calculations to analyze the data directly in Tableau
* Exercise 4 – Solve a business problem and present the analysis story in Tableau

Day 2:

* Exercise 5 – Connect to R and use calculated measures to generate the dashboard in Tableau
* Exercise 6 – Create Tableau Public profile, generate visualization and collaborate with team to analyze your data analysis results

**Training material provided:** Yes (Digital format)