

DATA ANALYTICS



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POWER BI

MODULE 1

Introduction To Power BI

- Introduction to Microsoft Power BI
- Main Features Of Power BI Workflow
- Desktop Application, BI Service, and File Data Sources.
- Web Sourcing, Dashboard Construction
- Data Visualization, Cloud Publishing, DAX Data Computing
- Row Background, Filter Background, Analytics Screen
- Columns and Measurements Creation, Data Drilling and Drilling
- Tables Creation, Binned Tables, Data Mode.

MODULE 2

Extracting Data

- Learning About Power Query for ETL Self-Service Applications
- Implementing Mashup Data, Working With Excel Data
- Learning About Power BI Personal Portal, Extracting Data From Files, Directories and Databases
- Working With Azure SQL Database and Database Source
- Connecting To Power BI 's Research Services, SaaS Applications.

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MODULE 3

Power Query For Data Transformation

- Installing Power BI
- Data Transformation – Such As Column, Row, Text, Data Sort, Column Adding Data Formatting, Pivot and UnPivot Merge Connect etc.
- Working With M Functions, Lists.

MODULE 4

Data Visualisation and Analytics

- Power BI Data Visualisation, Power View and Power Map Comprehension
- Power BI Desktop Visualisation
- SandDance Visualisation, Implementation of Power View on SharePoint and Excel
- Top-Down and Bottom-Up Analytics

- Comparison of Volume and Value-Based analytics
- Working With Power View to Produce Reports, Tables and Other Information.

MODULE 5

Power BI Desktop And Administration

- Power BI Desktop, Aggregating Data From Multiple Data Source
- Working of Power Query In Power BI Desktop Environment
- Data Modelling And Data Relationships
- Deploying Data Gateways, Data Refresh scheduling, Group and Row Level Security Management
- Working With Calculated Measures, Power Pivot on Power BI Desktop Ecosystem, Macro.

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TABLEAU

MODULE 1

Introduction To Data Visualisation And Power Of Tableau

- Introduction to Data Visualisation
- Comparison and Benefits Against Reading Raw Numbers
- Some quick and Powerful Examples Using Tableau
- Installing Tableau, Tableau Interface, Connecting to DataSource
- Tableau Data Types, and Data Preparation.

MODULE 2

Architecture Of Tableau

- Installation of Tableau Desktop
- Architecture and Interface Of Tableau
- Starting With Tableau

- Hands-on Exercise: Play with Tableau desktop, learn about the interface

Working With Meta Data and Data Blending

- Connection to Excel, Cubes and PDFs, Management of Metadata and Extracts
- Data Preparation Such As: Joins and Union, Dealing With NULL Values, Data Blending, etc.
- Hands-on Exercise: Connect to Excel Sheet to Import Data, Manage NULL Values, Perform the Join Techniques, etc.

MODULE 3

Creation Of Sets

- Mark, Sort, Group, and Using Sets, Constant Sets, Computed Sets, etc.

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- Hands-on Exercise: Use Marks , Apply sorting on results, Making Hierarchies Among the Created Sets.

Working With Filters

- Adding and Removing Filters
- Filtering Continuous Dates, Dimensions, and Measures
- Creating Filters in Tableau
- Sorting in Tableau
- Filtering in Tableau
- Types of Tableau
- Hands-on Exercise: Using the Dataset to Add Filter, Use Interactive Filter to View the Data, etc.

MODULE 4

Organizing Data and Visual Analytics

- Formatting Pane to Work With Menu, Fonts, Alignments,etc
- Formatting Data using Labels and Tooltips
- k-means Cluster Analysis
- Visual Analytics in Tableau
- Hands-on Exercise: Apply Labels and Tooltips to Graphs, Perform k-means Cluster Analysis on the Dataset.

MODULE 5

Working With Mapping

- Working on Coordinate Maps.
- Web Mapping Services
- Map Visualisation
- Creating Map Projects in Tableau
- Hands-on Exercise: Plot Longitude and Latitude on a Geo Map, , Create a Polygon Map, Use WMS etc.

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ADVANCED EXCEL

MODULE 1

Entering Data

- Introduction to Excel Spreadsheet
- Entering Data, Editing and Deleting Files

Referencing In Formulas

- Relative and Absolute Referencing
- Concept of Relative Formulae

Name Range

- Creating and Using Names Range

Understanding Logical Functions

MODULE 2

Getting Started With Conditional Formatting

- Conditional Formatting and Various Operations

Advanced Level Validation

- Multi-Level Drop-Down Validation

Important Formulas in Excel

- Introduction to Various Formulae in Excel Like Sum, SumIF, SumIFS etc.

Working With Dynamic Table

- Introduction to Dynamic Table in Excel
- Data Conversion, Table Conversion etc.

MODULE 3

Data Sorting

- Types of Data Sorting In Excel

Data Filtering

- Understanding Concept of Data Filtering

Chart Creation

- Creation of Charts in Excel
- Performing Operations in Embedded Chart

Techniques of Charting

- Introduction to the Various Types of Charting Techniques
- Creating Titles For Charts, Axes, Learning About Data Labels

MODULE 4

Pivot tables in Excel

- Pivot Tables in Excel, Report Filtering, Shell Creation
- Working With Pivot For Calculations, Formatting of Reports
- Dynamic Range Assigning, Slicers and Creating of Slicers.

Ensuring Data and File Security

- Data and File Security in Excel, Protecting Row, Column and Cell, Different Safeguarding Techniques.

MODULE 5

Getting Started With VMA Macros

- VBA Macros in Excel, Executing Macros in Excel, Macro Shortcuts, Applications, Concept of Relative Reference in Macros.

Core Concepts of VBA

- Understanding of Visual Basic For Applications, the VBA Editor
- Module Insertion and Deletion, Performing Action With Sub and Ending Sub

Ranges and Worksheet in VBA

- Concepts of Workbooks and Worksheets in Excel, Protection of Macro Codes, Range Coding, Concept of Pivot Table in VBA

- Introduction to Arrays, User Forms, Know How To Work With Databases Within Excel

MODULE 6

If Condition

- Working of If Condition and Working With Various Ifs in Macro

Loops in VMA

- Understanding the Concept of Looping, Deploying Looping in VBA Macros.

Debugging in VMA

- Debugging in VBA, Various Steps of Debugging Like Running, Breaking, Resetting
- Understanding Breakpoints and Way to Mark it .

Messaging in VMA

- Concept of Message Box in VBA, Learn to Create the Message Box, Various Types of Message Boxes

Practical Projects in VMA

- Mastering the Various Tasks and Functions Using VBA, Understanding Data Separation, Auto Filtering, Formatting of Report
- Combining Multiple Sheets Into One, Merging Multiple Files Together

MODULE 7

Best Practices of Dashboards Visualisation

- Introduction to Powerful Data Visualisation With Excel Dashboard

- Data Managing, Linking Data to Tables, Creating Reports Using Dashboard Features

Principles of Charting

- Create Charts in Excel
- Understanding Features of Charts

Getting Started With Pivot Tables

- Creation of Pivot Tables in Excel, Learn to Change the Pivot Table Layout, Generating Reports, Methodology of Grouping and Ungrouping of data.

MODULE 8

Creating Dashboards

- Create Dashboards and Dynamic Dashboards
- Knowing Data Layouts
- Introduction to Thermometer Charts and its Creation

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Creation of Interactive Components

- How to Insert a Scroll Bar to a data window, Concept of Option Buttons in a Chart
- Use of Combo Box Drop-Down, List Box Control Usage, How to use Checkbox Control

Data Analysis

- Understanding Data Quality Issues in Excel, Linking of Data, Consolidating and Merging Data, Working With Dashboards for Excel Pivot Tables.