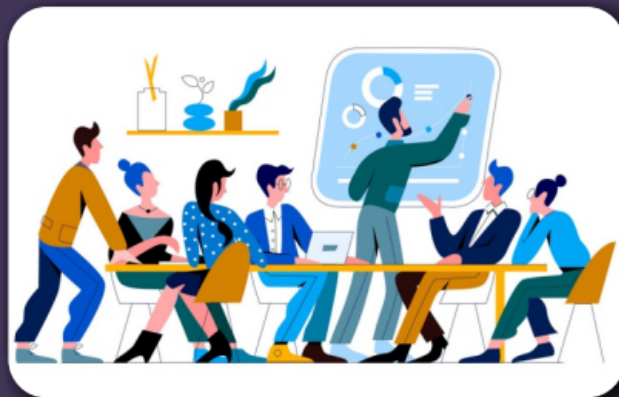# DATA ANALYTICS

Data analytics help a business optimize its performance,
Perform more efficiently, maximize profit,
or make more strategically-guided decisions.

Course Duration :- 6 MONTHS

Excel

- ✓ Intro to Excel
- ✓ Importing data
- ✓ Formatting in Excel
- ✓ Excel Formulae
- ✓ Data Validation
- ✓ Calculations
- ✓ Lookup and Reference
- ✓ Pivot Tables
- ✓ Charts
- ✓ What-if Analysis
- ✓ Intro to Macros

SQL

- ✓ Introduction to SQL
- ✓ DDL Statements
- ✓ DML Statements
- ✓ DQL Statements
- ✓ Aggregate Functions
- ✓ Date functions
- ✓ Union, Union All & Intersect Operators
- ✓ Joins
- ✓ Views & Indexes
- ✓ Sub-Queries
- ✓ Exercise on SQL

python

- ✓ Python Introduction
- ✓ Variables
- ✓ Functions
- ✓ Python Operators
- ✓ Python Flow Controls
- ✓ Conditional Statements
- ✓ Loops
- ✓ Python Collection Objects
- - Strings
- - List
- - Tuple
- - Dictionary
- ✓ List Comprehension
- ✓ User-defined Functions
- ✓ Function Arguments
- ✓ Lambda Functions

- ✓ Introduction to NumPy
- ✓ NumPy Array
- ✓ Creating NumPy Array
- ✓ Array Attributes
- ✓ Array Methods
- ✓ Array Indexing
- ✓ Slicing Arrays
- ✓ Array Operation
- ✓ Iteration through Arrays

pandas

- ✓ Introduction to Pandas
- ✓ Pandas Series
- ✓ Creating Pandas Series
- ✓ Accessing Series Elements
- ✓ Filtering a Series
- ✓ Arithmetic Operations
- ✓ Series Ranking and Sorting
- ✓ Checking Null Values
- ✓ Concatenate a Series
- ✓ Pandas Dataframe - Introduction
- ✓ Dataframe Creation
- ✓ Reading Data from Various Files
- ✓ Understanding Data
- ✓ Accessing Dataframe Elements using Indexing Dataframe Sorting
- ✓ Ranking in Dataframe
- ✓ Dataframe Concatenation
- ✓ Dataframe Joins
- ✓ Dataframe Merge
- ✓ Reshaping Dataframe
- ✓ Pivot Tables
- ✓ Cross Tables
- ✓ Dataframe Operations
- ✓ Checking Duplicates
- ✓ Dropping Rows and Columns
- ✓ Replacing Values
- ✓ Grouping Dataframe
- ✓ Missing Value Analysis & Treatment
- ✓ Visualisation using Matplotlib
- ✓ Plot Styles & Settings
- ✓ Line Plot
- ✓ Multiline Plot
- ✓ Matplotlib Subplots
- ✓ Histogram

Power BI

- ✓ Introduction to business intelligence (BI)
- ✓ Stages of business intelligence (BI)
- ✓ Use cases of BI
- ✓ Various BI tools
- ✓ Overview of data warehouse and concepts
- ✓ Introduction to Power BI
- ✓ Why Power BI?
- ✓ Power BI components
- ✓ Overview of Power BI desktop
- ✓ Data sources in Power BI
- ✓ Using files (excel, pdf, csv, etc.) as a data source
- ✓ Using SaaS connectors
- ✓ Extracting data from folders, and databases
- ✓ Shaping data using Power Query Editor
- ✓ Formatting data
- ✓ Transformation of data
- ✓ Understanding of Data types
- ✓ Creating relationships
- ✓ Cardinality
- ✓ Cross-filter direction
- ✓ Use of inactive relationships
- ✓ Data visualization techniques
- ✓ Page layout and formatting
- ✓ Power BI Desktop visualization
- ✓ Formatting and customizing visuals
- ✓ Dashboard
- ✓ Creating and configuring dashboards
- ✓ Dashboard theme
- ✓ Reports vs Dashboards
- ✓ Power BI service settings
- ✓ Power BI admin portal
- ✓ Administration activities
- ✓ Power BI usage analysis
- ✓ Create embedded code
- ✓ Manage embedded code
- ✓ Integration of Power BI in SharePoint
- ✓ Introduction of Power BI API
- ✓ Create data flow
- ✓ Advantages of data flow
- ✓ Create reports using data flow
- ✓ Introduction to Power BI deployment

Tableau

- ✓ What is data visualization?
- ✓ Comparison and benefits against reading raw numbers
- ✓ Real use cases from various business domains
- ✓ Some quick and powerful examples using Tableau without going into the technical details of Tableau
- ✓ Installing Tableau
- ✓ Tableau interface
- ✓ Architecture of Tableau
- ✓ Interface of Tableau (Layout, Toolbars, Data Pane, Analytics Pane, etc.)
- ✓ Tableau field types
- ✓ Saving and publishing a data source
- ✓ Filters (addition and removal)
- ✓ Filtering continuous dates, dimensions, and measures
- ✓ Filtering in Tableau

Alteryx

- ✓ The Alteryx Analytics Platform
- ✓ Alteryx Designer licensing
- ✓ Obtaining and installing Alteryx Designer
- ✓ Acquiring data
- ✓ Viewing data
- ✓ Outputting data
- ✓ Annotating your solution
- ✓ Handling nulls
- ✓ Multi-field and multi-row formulas
- ✓ Creating ad hoc data
- ✓ Data cleansing
- ✓ Appending fields
- ✓ Automatically setting data types
- ✓ Using demographic data
- ✓ Find and replace
- ✓ Conditions
- ✓ Control parameters