



EXCEL FOR DATA ANALYTICS



LEARNING TRACK

✓ Introduction to Excel and Data Analysis Basics

- Introduction to spreadsheets, cells, rows, and columns.
- Basic data entry and formatting
- Introduction to data analysis concepts and so on...

✓ Statistical Analysis in Excel

- Introduction to basic statistical functions:
- SUM, AVERAGE, COUNT, MAX, MIN
- Calculating measures of central tendency and dispersion and so on...

✓ Data Visualization and Dashboard Creation

- Creating interactive dashboards and graphs using named ranges and dynamic formulas
- Incorporating slicers and timelines for dashboard interactivity
- Design principles for effective data visualization

✓ Managing Data in Excel

- Sorting and filtering data
- Using Excel tables for structured data management
- Data validation and data cleaning techniques and so on...

✓ Advanced Functions and Formulas

- Understanding logical functions
- Using lookup and reference functions
- Introduction to array formulas for complex calculations
- Introduction to advanced statistical functions

✓ Introduction to Power Query and Power Pivot

- Introduction to Power Pivot for data modeling and analysis
- Combining data from multiple sources using Power Query
- Creating relationships and measures in Power Pivot



SQL FOR DATA ANALYTICS



LEARNING TRACK



Introduction to SQL and Relational Databases

- Introduction to SQL
- Overview of Relational Database Management Systems
- Setting up SQL environment



SQL Basics: Retrieving Data

- Basic SELECT statement syntax
- Retrieving data from a single table
- Filtering data with WHERE clause
- Sorting data with ORDER BY clause
- Limiting and paging results



Working with Multiple Tables

- Understanding table relationships
- Using JOINS for multiple tables
- Handling NULL values in JOIN operations
- Using aliases for table names and column names



Data Filtering and Aggregation

- Aggregating data with GROUP BY clause
- Filtering grouped data with HAVING clause
- Using aggregate functions
- SQL arithmetic operators



Data Manipulation with SQL

- Understanding the CRUD Operation
- INSERT, UPDATE, and DELETE statements for modifying data
- Manipulating real life databases



POWER BI FOR DATA ANALYTICS



LEARNING TRACK



Overview of Power BI

- Understanding Power BI
- Power BI Use Cases
- Is Power BI Data Analytics?
- Why Data Visualization



Visualization & Communication

- How does visualization and communication fit in the data analytics life cycle.
- Tufte's 10 Laws for visualization
- Charts and use cases
- Communication in the workplace.



Visual Storytelling

- What is storytelling?
- The place for storytelling in data analytics.
- What is involved in telling a good story?



DAX Formulas in Power BI

- What are DAX formulas?
- Do we really need DAX?
- Types of DAX Formulas
- Using DAX in Power BI Visuals



Data Visualization with Power BI

- Analyzing data with visuals in Power BI.
- KPIs, Pie Charts, Bar Charts; How do they fit in?
- Visuals and Dashboard for Reporting?
- Getting insights from your charts?
- Presenting insights with Dashboards.