

DATA ANALYSIS COURSE

Course Overview

This comprehensive Data Analysis program is designed to make you **industry-ready**, covering Excel, SQL, Power BI, and Python for real-world data analysis.

Perfect for **beginners, students, working professionals, and career-switchers**.

COURSE MODULES

ADVANCED EXCEL FOR DATA ANALYSIS

Core Excel Skills

- Text to Columns
- Concatenate & CONCATENATE Function
- RIGHT Function with Concatenation
- Absolute Cell References
- Data Validation
- Time & Date Calculations
- Conditional Formatting
- Styles & Clearing Formatting
- Hide Cells using Conditional Formatting
- IF Function

Pivot Tables & Charts

- Creating Pivot Tables
- Specifying PivotTable Data
- Creating Simple Charts
- Charting Non-Adjacent Cells
- Using Chart Wizard
- Modify, Move & Resize Charts
- Changing Chart Types
- Changing Data Display
- Legend Customization
- Formatting Text, Numbers & Plot Area
- Formatting Data Markers
- Pie Charts (Exploding Slices)
- Adding Chart Items

Data Analysis Concepts

- Overview & Types of Data Analysis
- Data Analysis Process

Range Names & Table Management

- Create & Manage Range Names
- Syntax Rules
- Using Names in Formulas
- Tables vs Ranges
- Create & Resize Tables
- Remove Duplicates
- Table Styles

Data Cleaning

- Cleaning Text
- Removing Unwanted Characters
- Extracting Values from Text
- Date Formats
- Sorting & Filtering

Macros (Basics)

2 SQL FOR DATA MANAGEMENT (Oracle SQL)

SQL Foundations

- Introduction to Oracle Database
- SELECT & Retrieving Data
- Restricting & Sorting Data
- Single-Row Functions
- Conversion Functions
- Conditional Expressions

Advanced SQL

- Aggregate Functions
- Joins (All Types)
- Sub-queries
- SET Operators

Database Management

- DML (Insert/Update/Delete)
- DDL (Create/Alter/Drop Tables)
- Schema Objects
- User Access Control
- Data Dictionary Views

- Working with Large Data Sets
- Time Zone-Based Data Handling
- Regular Expressions in SQL

3 POWER BI – BUSINESS INTELLIGENCE & REPORTING

Module 1: Introduction

- Power BI Concepts
- Power BI Service Overview
- Connect to SaaS, Excel, CSV, Samples
- Power BI Portal Navigation

Module 2: Visualizations & Tiles

- Create Reports
- Build & Format Charts, Maps, Gauges, Text Visuals
- Use Slicers
- Sort, Copy & Paste Visuals

Module 3: Reports & Dashboards

- Modify & Print Reports
- Filters & Interactions
- Export to PowerPoint
- Create Dashboards
- Pin Reports & Visuals

Module 4: Publishing & Workspaces

- Share Reports & Dashboards
- Publish to Web
- Manage Workspaces
- Create Apps & Add Users

Module 5: Power BI Desktop & Data Modeling

- Install & Use Power BI Desktop
- Get, Reduce & Transform Data
- Build Relationships Between Tables
- Import Desktop Data to Service

Module 6: DAX Functions

- Date & Time Functions
- Time Intelligence
- Filter & Logical Functions
- Information Functions
- Math & Trig Functions



- Parent & Child Functions
- Text Functions

PYTHON FOR DATA ANALYSIS (pandas, numpy, matplotlib)

Python Basics

- Syntax & Comments
- Print Statement
- Input/Output
- Operators
- Control Flow (Loops & Conditions)
- Functions & Arguments

Data Structures

- Lists & Dictionaries
- Data Types
- String Operations
- Deep & Shallow Copy

Advanced Python

- Modules
- Decorators & Generators
- Error & Exception Handling
- Comparisons & Operators

Data Analysis Libraries

pandas

- DataFrames
- Reading Files
- Cleaning & Filtering Data
- Basic Visualization

NumPy

- Arrays
- Mathematical Operations

Matplotlib

- Basic Plots for Visualization



Certification

✓ Course Completion Certificate

✓ Project-Based Certification (Excel + SQL + Power BI + Python)

 Career Paths After Course

- Data Analyst
- Business Analyst
- Power BI Developer
- Reporting Analyst
- MIS Executive
- Junior Data Scientist

