Excel Data Analyst With CoPilot

100% Hands-On, Job Oriented

What is Data Analysis?

Data Analysis is an art to understand the data, identify hidden trends of data. This involves Data Presentation, Data Classification and Detailed understanding of data.

How to become a Data Analyst with Excel?

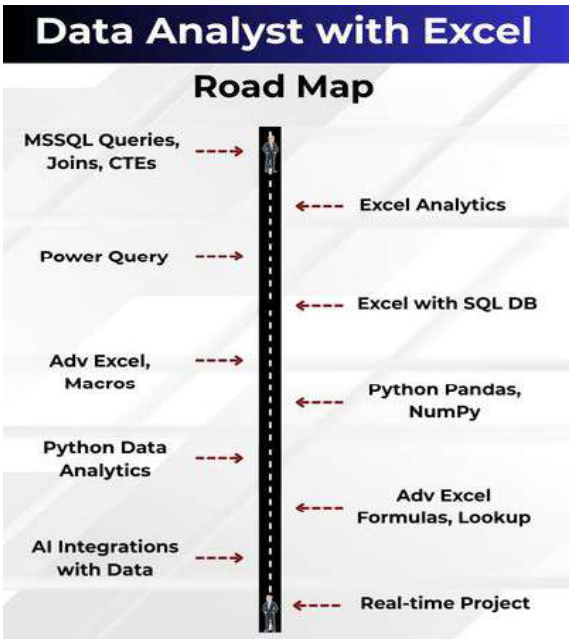
Step 1: Learn Database Concepts & SQL (From Scratch, step by step)
Step 2: Learn **Excel**
Step 3: Learn **Advanced Excel**
Step 4: Learn Python
Step 5: Involve in Realtime Projects
Step 6: Resume and Job Placement

Who can join this course?

Anyone. We start the classes from scratch, right from Basics of Data, Database, Analysis.
Then proceed for Scenario based activities and job orientation with Realtime Project.

Data Analyst Training With Excel, CoPilot

- **Module 1: MSSQL & TSQL**
  3 Weeks; 2 Realtime Case Studies
- **Module 2: Power BI**
  4 Weeks; 4 Realtime Case Studies
- **Module 3: Python Analytics**
  3 Weeks; 1 Realtime Case Study
- **Module 4: Realtime Projects**
  Includes Advanced Excel
  Guidance for PL 300 Exam
  1:1 Resume
  1:1 Mock Interview



🔥 Detailed Course Content 🔥

This detailed content with 100% Hands-On, Daily Assignments make you 100% Job ready !

Module 1: SQL Server TSQL (MS SQL) Queries

Ch 1: Data Analyst Job Roles

- ✓ **Introduction to Data**
- ✓ **Data Analyst Job Roles**
- ✓ **Data Analyst Challenges**
- ✓ **Data and Databases Intro**

Ch 2: Database Intro & Installations

- ✓ **Database Types (OLTP, DWH, ..)**
- ✓ **DBMS: Basics**
- ✓ **SQL Server 2025 Installations**
- ✓ **SSMS Tool Installation**
- ✓ **Server Connections, Authentications**

Ch 3: SQL Basics V1 (Commands)

- ✓ **Creating Databases (GUI)**
- ✓ **Creating Tables, Columns (GUI)**
- ✓ **SQL Basics (DDL, DML, etc..)**
- ✓ **Creating Databases, Tables**
- ✓ **Data Inserts (GUI, SQL)**
- ✓ **Basic SELECT Queries**

Ch 4: SQL Basics V2 (Commands, Operators)

- ✓ **DDL: Create, Alter, Drop, Add, modify, etc..**
- ✓ **DML: Insert, Update, Delete, select into, etc..**
- ✓ **DQL: Fetch, Insert... Select, etc..**
- ✓ **SQL Operations: LIKE, BETWEEN, IN, etc..**
- ✓ **Special Operators**

Ch 5: Data Types

- ✓ **Integer Data Types**
- ✓ **Character, MAX Data Types**
- ✓ **Decimal & Money Data Types**
- ✓ **Boolean & Binary Data Types**
- ✓ **Date and Time Data Types**
- ✓ **SQL_Variant Type, Variables**

Ch 6: Excel Data Imports

- ✓ **Data Imports with Excel**
- ✓ **SQL Native Client**

- ✓ **Order By: Asc, Desc**
- ✓ **Order By with WHERE**
- ✓ **TOP & OFFSET**
- ✓ **UNION, UNION ALL**

Ch 7: Schemas & Batches

- ✓ **Schemas: Creation, Usage**
- ✓ **Schemas & Table Grouping**
- ✓ **Real-world Banking Database**
- ✓ **2 Part, 3 Part & 4 Part Naming**
- ✓ **Batch Concept & "Go" Command**

Ch 8: Constraints, Keys & RDBMS – Level 1

- ✓ **Null, Not Null Constraints**
- ✓ **Unique Key Constraint**
- ✓ **Primary Key Constraint**
- ✓ **Foreign Key & References**
- ✓ **Default Constraint & Usage**
- ✓ **DB Diagrams & ER Models**

Ch 9: Normal Forms & RDBMS – Level 2

- ✓ **Normal Forms: 1 NF, 2 NF**
- ✓ **3 NF, BCNF and 4 NF**
- ✓ **Adding PK to Tables**
- ✓ **Adding FK to Tables**
- ✓ **Cascading Keys**
- ✓ **Self Referencing Keys**
- ✓ **Database Diagrams**

Ch 10: Joins & Queries

- ✓ **Joins: Table Comparisons**
- ✓ **Inner Joins & Matching Data**
- ✓ **Outer Joins: LEFT, RIGHT**
- ✓ **Full Outer Joins & Aliases**
- ✓ **Cross Join & Table Combination**
- ✓ **Joining more than 2 tables**

Ch 11: Views & RLS

- ✓ **Views: Realtime Usage**
- ✓ **Storing SELECT in Views**
- ✓ **DML, SELECT with Views**
- ✓ **RLS: Row Level Security**
- ✓ **WITH CHECK OPTION**
- ✓ **Important System Views**

Ch 12: Stored Procedures

- ✓ **Stored Procedures: Realtime Use**

- ✓ Parameters Concept with SPs
- ✓ Procedures with SELECT
- ✓ System Stored Procedures
- ✓ Metadata Access with SPs
- ✓ SP Recompilations
- ✓ Stored Procedures, Tuning

Ch 13: User Defined Functions

- ✓ Using Functions in MSSQL
- ✓ Scalar Functions in Real-world
- ✓ Inline & Multiline Functions
- ✓ Parameterized Queries
- ✓ Date & Time Functions
- ✓ String Functions & Queries
- ✓ Aggregated Functions & Usage

Ch 14: Triggers & Automations

- ✓ Need for Triggers in Real-world
- ✓ DDL & DML Triggers
- ✓ For / After Triggers
- ✓ Instead Of Triggers
- ✓ Memory Tables with Triggers
- ✓ Disabling DMLs & Triggers

Ch 15: Transactions & ACID

- ✓ Transaction Concepts in OLTP
- ✓ Auto Commit Transaction
- ✓ Explicit Transactions
- ✓ COMMIT, ROLLBACK
- ✓ Checkpoint & Logging
- ✓ Lock Hints & Query Blocking
- ✓ READPAST, LOCKHINT

Ch 16: CTEs & Tuning

- ✓ Common Table Expression
- ✓ Creating and Using CTEs
- ✓ CTEs, In-Memory Processing
- ✓ Using CTEs for DML Operations
- ✓ Using CTEs for Tuning
- ✓ CTEs: Duplicate Row Deletion

Ch 17: Indexes Basics, Tuning

- ✓ Indexes & Tuning
- ✓ Clustered Index, Primary Key
- ✓ Non Clustered Index & Unique
- ✓ Creating Indexes Manually
- ✓ Composite Keys, Query Optimizer

- ✓ **Composite Indexes & Usage**

Ch 18: Group By Queries

- ✓ **Group By, Distinct Keywords**
- ✓ **GROUP BY, HAVING**
- ✓ **Cube( ) and Rollup( )**
- ✓ **Sub Totals & Grand Totals**
- ✓ **Grouping( ) & Usage**
- ✓ **Group By with UNION**
- ✓ **Group By with UNION ALL**

Ch 19: Joins with Group By

- ✓ **Joins with Group By**
- ✓ **3 Table, 4 Table Joins**
- ✓ **Join Queries with Aliases**
- ✓ **Join Queries & WHERE**
- ✓ **Join Queries & Group By**
- ✓ **Joins with Sub Queries**
- ✓ **Query Execution Order**

Ch 20: Sub Queries

- ✓ **Sub Queries Concept**
- ✓ **Sub Queries & Aggregations**
- ✓ **Joins with Sub Queries**
- ✓ **Sub Queries with Aliases**
- ✓ **Sub Queries, Joins, Where**
- ✓ **Correlated Queries**

Ch 21: Cursors & Fetch

- ✓ **Cursors: Realtime Usage**
- ✓ **Local & Global Cursors**
- ✓ **Scroll & Forward Only Cursors**
- ✓ **Static & Dynamic Cursors**
- ✓ **Fetch, Absolute Cursors**

Ch 22: Window Functions, CASE

- ✓ **IIF Function and Usage**
- ✓ **CASE Statement Usage**
- ✓ **Window Functions (Rank)**
- ✓ **Row_Number( )**
- ✓ **Rank( ), DenseRank( )**
- ✓ **Partition By & Order By**

Ch 23: Merge(Upsert) & CASE, IIF

- ✓ **Merge Statement**
- ✓ **Upsert Operations with Merge**

- ✓ Matched and Not Matched
- ✓ IIF & CASE Statements
- ✓ Merge Statement inside SPs
- ✓ Merge with OLTP & DWH

Ch 24: Key Take-Aways from Module 1

- ✓ Case Study 1: Medicare: Tasks, Solutions
- ✓ Case Study 2: ECommerce: Task, Solutions
- ✓ Chapter Wise Assignments: Solutions
- ✓ Dailly Assignments: Review (Feedback)
- ✓ Weekly Mock Interview: Feedbacks

Module 2: Excel & Advanced Excel, CoPilot

Ch 1: Basic Functions

- ✓ SUM, AVERAGE, MAX, MIN, COUNT, COUNTA
- ✓ Absolute, Mixed
- ✓ Relative Referencing

Ch 2: Formatting and Proofing

- ✓ Currency Format
- ✓ Format Painter
- ✓ Formatting Dates
- ✓ Custom and Special Formats
- ✓ Formatting Cells

Ch 3: Functions

- ✓ SUMIF, SUMIFS, COUNTIF
- ✓ COUNTIFS, AVERAGEIF
- ✓ AVERAGEIFS, NESTED IF
- ✓ IFERROR STATEMENT
- ✓ AND, OR, NOT

Ch 4: Protecting Excel

- ✓ File Level Protection
- ✓ Workbook
- ✓ Worksheet Protection
- ✓ Security Concepts
- ✓ Realtime Issues, Solutions

Ch 5: Text Functions

- ✓ Upper, Lower, Proper
- ✓ Left, Mid, Right
- ✓ Trim, Len, Exact
- ✓ Concatenate
- ✓ Find, Substitute

Ch 6: Date & Time Functions

- ✓ Today, Now
- ✓ Day, Month, Year
- ✓ Date, Date if, Date Add
- ✓ EOMONTH
- ✓ Weekday Functions

Ch 7: Adv. Techniques

- ✓ Paste Formulas
- ✓ Paste Formats
- ✓ Paste Validations
- ✓ Transpose Tables

Ch 8: New in Excel & 365

- ✓ Charts – Tree map & Waterfall
- ✓ Sunburst, Box and whisker Charts
- ✓ Combo Charts – Secondary Axis
- ✓ Adding Slicers Tool in Pivot & Tables
- ✓ Using Power Map and Power View
- ✓ Forecast Sheet, park lines

Ch 9: New in Excel & 365

- ✓ Using 3-D Map
- ✓ New Controls in Pivot Table
- ✓ Various Time Lines
- ✓ Auto complete a data range
- ✓ Quick Analysis Tool
- ✓ Smart Lookup manage Store

Ch 10: Printing Workbooks

- ✓ Setting Up Print Area
- ✓ Customizing Headers
- ✓ Templates
- ✓ Print Titles –Repeat Rows

Ch 11: Sorting and Filtering

- ✓ Filtering on Text
- ✓ Numbers & Colors
- ✓ Sorting Options
- ✓ Advanced Filters
- ✓ Filter Criteria

Part 2: Advanced Excel

Ch 12: What If Analysis

- ✓ Goal Seek
- ✓ Scenario Analysis
- ✓ Data Tables (PMT Function)
- ✓ Solver Tool

Ch 13: Logical Functions

- ✓ If Function
- ✓ How to Fix Errors – if error
- ✓ Nested If
- ✓ Complex if and or functions

Ch 14: Data Validation

- ✓ Number, Date & Time
- ✓ Text and List Validation
- ✓ Custom validations formulas
- ✓ Dynamic Dropdowns

Ch 15: Lookup Functions

- ✓ V lookup / H Lookup
- ✓ Index and Match
- ✓ Smooth User Interface
- ✓ Nested V Lookup
- ✓ Reverse Lookup
- ✓ Worksheet linking
- ✓ V lookup with Helper Column

Ch 16: Pivot Tables - 1

- ✓ Creating Simple Pivot Tables

- ✓ **Classic Pivot table**
- ✓ **Choosing Field**
- ✓ **Filtering PivotTables**
- ✓ **Modifying PivotTable Data**
- ✓ **Grouping**
- ✓ **Calculated Fields**

Ch 17: Pivot Tables - 2

- ✓ **Array with IF, LEN**
- ✓ **MID function formulas.**
- ✓ **Array with Lookup functions.**
- ✓ **Various Charts**
- ✓ **SLICERS, Filter data**
- ✓ **Manage Primary Axis**
- ✓ **Manage Secondary Axis**

Ch 18: Excel Dashboard

- ✓ **Planning a Dashboard**
- ✓ **Adding Tables and Charts to Dashboard**
- ✓ **Adding Dynamic Contents to Dashboard**

Ch 19: VBA Macro – Level 1

- ✓ **Using Outlook Namespace**
- ✓ **Send automated mail**
- ✓ **Outlook Configurations, MAPI**
- ✓ **Worksheet Operations**
- ✓ **Workbook Operations**

Ch 20: VBA Macro – Level 2

- ✓ **Merge Worksheets using Macro**
- ✓ **Merge multiple excel files into one sheet**
- ✓ **Split worksheets using VBA**
- ✓ **Worksheet copiers**

Module 3: Python (For Data Analysts)

Ch 1: Python Introduction

- ✓ Python Introduction
- ✓ Python Versions
- ✓ Python Implementations
- ✓ Python Installations

- ✓ Python IDE & Usage
- ✓ Jupyter Notebooks

Ch 2: Python Operations

- ✓ Basic Operations in Python
- ✓ Python Scripts, Print()
- ✓ Single, Multiline Statements
- ✓ Python: Internal Architecture
- ✓ Compiler Versus Interpreter

Ch 3: Data Types & Variables

- ✓ Integer / Int Data Types
- ✓ Float, String Data Types
- ✓ Sequence Types: List, Tuple
- ✓ Range, Complex & memview
- ✓ Retrieving Data Type: type()

Ch 4: Python Operators

- ✓ Arithmetic, Assignment Ops
- ✓ Comparison Operators
- ✓ Operator Precedence
- ✓ If ... Else Statement, Pass
- ✓ Short Hand If, OR, AND
- ✓ ELIF and ELSE IF Statements

Ch 5: Python Loops, Iterations

- ✓ Python Loop & Realtime Use
- ✓ Python While Loop Statement
- ✓ Break and Continue Statement
- ✓ Iterations & Conditions
- ✓ Exit Conditions & For Loops
- ✓ iter() and Looping Options

Ch 6: Python Functions

- ✓ Python Functions & Usage
- ✓ Function Parameters
- ✓ Default & List Parameters
- ✓ Python Lambda Functions
- ✓ Recursive Functions, Usage
- ✓ Return & Print @ Lamdba

Ch 7: Python Modules

- ✓ Import Python Modules
- ✓ Built In Modules & dir
- ✓ datetime module in Python

- ✓ Date Objections Creation
- ✓ strftime Method & Usage
- ✓ imports & datetime.now()

Ch 8: Python User Inputs & TRY

- ✓ Try Except, Exception Handling
- ✓ Raise an exception method
- ✓ TypeError, Scripting in Python
- ✓ Python User Inputs
- ✓ Python Index Numbers
- ✓ input() & raw_input()

Ch 9: Python File Handling

- ✓ File Handling, Activities
- ✓ Loop, Write, Close Files
- ✓ Appending, Overwriting
- ✓ import os, path.exists
- ✓ f.open, f.write
- ✓ f.read, f.close

Ch 10: Pandas DataFrames 1

- ✓ Installation of Pandas
- ✓ Python Modules & Pandas
- ✓ Pandas Codebase & Usage
- ✓ import pandas.DataFrame
- ✓ Pandas Series, arrays

Ch 11: Pandas DataFrames 2

- ✓ Indexes & Named Options
- ✓ Locate Row and Load Rows
- ✓ Row Index & Index Lists
- ✓ Load Files Into a DataFrame
- ✓ df.to_string() Function
- ✓ tail() & null() Function

Ch 12: Pandas Transformations

- ✓ Pandas - Cleaning Data
- ✓ Replace, Transform Columns
- ✓ Data Discovery & Column Fill
- ✓ Identify & Remove Duplicates
- ✓ dropna(), fillna() Functions
- ✓ Data Plotting & matlib Lib

Ch 13: Realtime Project (Banking / Finance) For Data Analysis [End to End]

Ch 14: Mock Interviews ++ 1:1 Resume Meet