SQL School™
Quality Training Assured

Complete Practical, Real-time Job Oriented Training

Data Analyst Training

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.

Who can join this course?

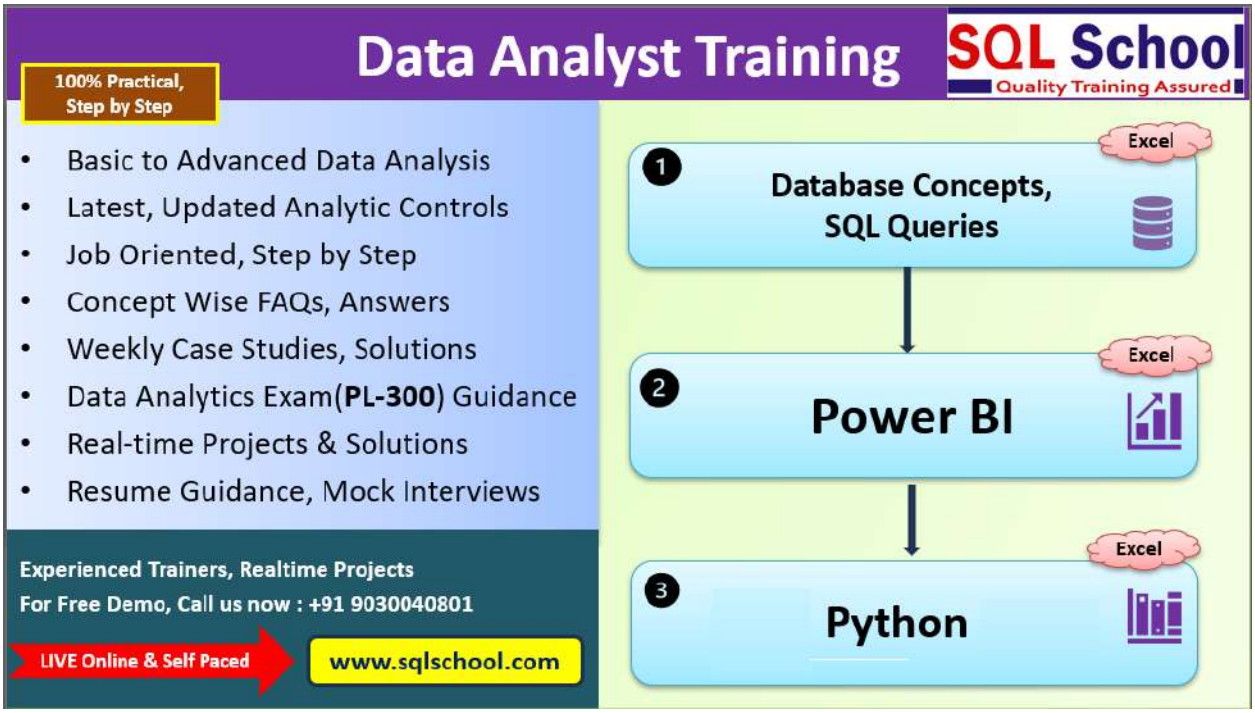
Anyone. We start the classes from scratch, right from Basics of Data, Database, Analysis.
Then proceed for Scenario based activities and job orientation with Realtime Project.

How to become a Data Analyst?

Step 1: Learn **SQL Server** TSQL (MSSQL) Queries. 400+ Queries with concept wise FAQs
Step 2: Learn **Power BI**. Concept wise FAQs, Assignments, Case Studies
Step 3: Learn **Python**. Concept wise FAQs, Assignments, Case Studies
Step 4: Involve in a Real-time Project for your resume with Complete Solution, FAQs

What are the Certifications from Microsoft for Data Analyst ?

Our course includes Data Analyst Certification Exam Guidance (PL 300)
Ref: https://learn.microsoft.com/en-us/credentials/certifications/data-analyst-associate/



Module 1: SQL Server TSQL (MSSQL)

Day 1: Introduction ✓ Database Introduction ✓ Types of Databases ✓ Need for & ETL, DWH ✓ BI Implementations ✓ SQL Server Advantages ✓ Version, Editions of MSSQL ✓ Data Engineering Job Roles	**Day 2: Installations** ✓ SQL Server 2019, 2017 ✓ SSMS Tools Installation ✓ Database Engine (OLTP) ✓ SCM, Configuration Tools ✓ Instance Types, Uses ✓ Authentication Modes ✓ Collation, File Stream	**Day 3: SQL Basics - 1** ✓ Need for Databases, Tables ✓ Need for SQL Commands ✓ DDL, DML & DQL Statements ✓ Database Creation @ GUI ✓ Data Operations @ GUI ✓ Session ID, SQL Context ✓ DB, Tables, Data @ SQL
Day 4: SQL Basics - 2 ✓ DDL Variants in MSSQL ✓ DML Variants in MSSQL ✓ INSERT & INSERT INTO ✓ SELECT & SELECT INTO ✓ Basic Operators in SQL ✓ Special Operators in MSSQL ✓ ALTER, ADD, TRUNCATE, DROP	**Day 5: Data Imports, Schemas** ✓ Data Imports with Excel ✓ ORDER BY & UNION ✓ UNION ALL For Sorting Data ✓ Creating, Using Schemas ✓ Real-world Banking Database ✓ Table Migrations @ Schemas ✓ 2 Part, 3 Part & 4 Part Naming	**Day 6: Constraints, Index Basics** ✓ Need for Constraints, Keys ✓ NULL, NOT NULL, UNIQUE ✓ Primary Key & Foreign Key ✓ RDBMS and ER Models ✓ Identity Property, Default ✓ Clustered Index, Primary Key ✓ Non Clustered Index, Unique
Day 7: Joins & Views Basics ✓ JOINS: Purpose. Inner Joins ✓ Left / Right / Full Outer Joins ✓ Cross Joins, Query Tuning ✓ Creating & Using Views ✓ DML, SELECT with Views ✓ RLS : WITH CHECK OPTION ✓ System Views & Metadata	**Day 8: Functions(UDF), Data Types** ✓ Using Functions in MSSQL ✓ Scalar Value Functions ✓ Inline & Multiline Functions ✓ Date & Time Functions ✓ String, Aggregate Functions ✓ Data Types : Integer, Char, Bit ✓ SQL Variant, Timestamp, Date	**Day 9: Stored Procedures,Models** ✓ Stored Procedures & Usage ✓ Creating, Testing Procedures ✓ Encryption, Deferred Names ✓ SPs for Validations, Analysis ✓ System SPs, Recompilation ✓ Normal Forms & Types ✓ Data Models, Self-References
Day 10: Triggers, Temp Tables ✓ Need for Triggers ✓ DDL & DML Triggers ✓ Using Memory Tables ✓ Data Replication, Automation ✓ Local & Global Temp Tables ✓ Testing & Using Temp Tables ✓ SELECT .. INTO & Bulk Loads	**Day 11: DB Architecture, Locks** ✓ Planning VLDBs : Files, Sizing ✓ Filegroups, Extents & Types ✓ Log Files : VLF, Mini LSN ✓ Table Location, Performance ✓ Schemas, Transfer, Synonyms ✓ Transactions Types, Lock Hint ✓ Query Blocking Scenarios	**Day 12: Cursors & CTEs, Links** ✓ Cursors : Realtime Use ✓ Fetch & Access Cursor Rows ✓ CTEs for SELECT, DML ✓ CTEs: Scenarios & Tuning ✓ Linked Servers, Remote Joins ✓ Linked Servers: MSDTC, RPC ✓ Tuning Remote Queries
Day 13: Merge, Upsert & Rank ✓ Need for Merge in ETL ✓ Incremental Loads with SQL ✓ MERGE and RANK Functions ✓ Window Functions, Partition ✓ Identify, Remove Duplicates	**Day 14: Grouping & Cube** ✓ Group By & HAVING ✓ Cube, Rollup & Grouping ✓ Joins with Group By ✓ 3 Table, 4 Table Joins ✓ Query Execution Order	**Day 15: Self Joins, Excel Analysis** ✓ Self Joins & Self References ✓ UNION, UNION ALL ✓ Sub Queries with Joins ✓ IIF, CASE, EXISTS Statements ✓ Excel Analytics, Pivot Reports

Realtime Case Study : Health-Care Domain

Module 2 : Power BI

Day 1: Power BI Introduction ✓ Reporting Basics & Types ✓ Interactive,Analytical Reports ✓ Paginated Reports (RDL) ✓ Power BI Eco System ✓ Power BI Tools,Service,Server ✓ Need for Power Query (M) ✓ Need for DAX & Cloud	**Day 2: Power BI Basic Reports** ✓ Power BI Desktop Installation ✓ Basic Report Design (PBIX) ✓ Data View, Data Models ✓ Data Points, Aggregations ✓ Focus Mode, Spotlight, Exports ✓ ToolTip, PBIX and PBIT ✓ Visual Interactions & Edits	**Day 3: Grouping, Hierarchies** ✓ Creating Groups in Power BI ✓ Groups : Creation & Usage ✓ Group Edits Options ✓ Bins & Bin Size, Bin Count ✓ Hierarchies: Creation, Use ✓ Drill Down, Drill Up ✓ Conditional Drill Down
Day 4: Visual Sync, Filters ✓ Slicer & Single Select ✓ Multi Select Options ✓ Integer, Character Slicers ✓ Visual Sync with Slicers ✓ Filters: Visual, Page, Report ✓ Drill Thru Filters & Usage ✓ Basic, Top & Advanced ✓ Clear Filter Options, Resets	**Day 5: Bookmarks, Big Data Access** ✓ Bookmarks Creation & Usage ✓ Visual Interactions, Bookmarks ✓ Images : Actions, Bookmarks ✓ Big Data Access with Power BI ✓ Storage Modes: Direct Query ✓ Import & Performance Impact ✓ Formatting & Data Refresh ✓ Summary & Date Time Formats	**Day 6: Power BI Visualizations** ✓ Chart and Bar Visuals ✓ Line and Area Charts ✓ Maps, TreeMaps, HeatMaps ✓ Funnel, Card, Multrow Card ✓ PieCharts & Settings ✓ Waterfall, Sentiment Colors ✓ Scatter Chart, Play Axis ✓ Infographics, Classifications
Day 7: Power Query Level 1 ✓ Power Query (Mashup) ✓ ETL Transformations in PBI ✓ Power Query Expressions ✓ Table Combine Options ✓ Merge, Union All Options ✓ Table Transformations	**Day 8: Power Query Level 2** ✓ Any Column Transformations ✓ String / Text Transformations ✓ Numeric Analytics & Mashup ✓ Date Time Transformations ✓ Add Column Transformations ✓ Expressions and New Columns	**Day 9: Power Query Level 3** ✓ Parameters in Power Query ✓ Static Parameters, Defaults ✓ Dynamic Dropdowns, Lists ✓ Linking with Table Queries ✓ Column From Examples ✓ Step Edits, Type Conversions
Day 10: Power BI Cloud - 1 ✓ Power BI Cloud Concepts ✓ Workspace Creation, Usage ✓ Report Publish & Edits ✓ Semantic Models in Realtime ✓ Dashboard Creation, Usage ✓ Clone, Share, Subscribe ✓ Q&A, Lineage, Settings	**Day 11: Power BI Cloud - 2** ✓ Data Gateways, Data Refresh ✓ Data Source Configurations ✓ Data Refresh & Scheduling ✓ Gateway Optimizations ✓ Semantic Model Optimizations ✓ Report Optimizations ✓ Dashboard Optimizations	**Day 12: Power BI Cloud - 3** ✓ Power BI Apps, Shares ✓ App Sections & Options ✓ App Updates, Security ✓ Excel Analytics ✓ Data Explorer Options ✓ Sharing, Subscriptions ✓ Alerts, Metrics, Insights

Day 13: Report Server & RDL	Day 14: DAX Level 1	Day 15: DAX Level 2
✓ Power BI Report Server ✓ SQL Server DB Engine ✓ Report Database, TempDB ✓ Web Service & Server URL ✓ Paginated Reports (RDL) ✓ Report Builder Tool Usage	✓ DAX : Purpose, Realtime Use ✓ DAX Calculations Creation, Use ✓ DAX Measures Creation, Use ✓ DAX Functions: IIF, ISBLANK ✓ SUM, CALCULATE Functions ✓ DAX Cheat Sheet : Examples	✓ Quick Measures in Power BI ✓ Running Totals, Filters ✓ Star Rating Calculations ✓ Data Models & DAX ✓ Star & Snowflake Schemas ✓ Dimensions, Fact Tables
Day 16: DAX Level 3	**Day 17: Realtime Project Phase 1**	**Day 18: Realtime Project Phase 2**
✓ DAX Expressions & Joins ✓ DAX Variables, Usage ✓ Dynamic Report with DAX ✓ SELECTED MEMEBER ✓ Time Intelligence with DAX ✓ PARALLELPERIOD, DATE	✓ Project Requirement Spec ✓ Understanding Data, Formats ✓ Report Pattern Design ✓ Report Design & Modelling ✓ Power Query, DAX, Insights ✓ Analytical Reports in Cloud	✓ Complete Project Solution ✓ Project FAQs, Key Roles ✓ Real-world Considerations ✓ Power BI Admin Concepts ✓ Resume Points, FAQs ✓ PL 300 Exam Guidance

Module 3: Python Curriculum

Day 1: Python Introduction	Day 2: Python Basics, Architecture	Day 3: Data Types & Variables
✓ Need for Data Analytics ✓ Python in Data Analysis ✓ History of Python ✓ Python Versions ✓ Python Implementations ✓ Python Installations ✓ Python IDE & Usage ✓ Jupyter Notebooks	✓ Python Scripting Options ✓ Basic Operations in Python ✓ Python Scripts, Print() ✓ Single, Multiline Statements ✓ Adding Cells, Saving Notebook ✓ Single, Multi Line Comments ✓ Python : Internal Architecture ✓ Compiler Versus Interpreter	✓ Integer / Int Data Types ✓ Float & String Data Types ✓ Boolean, Binary Types ✓ Sequence Types: List, Tuple ✓ Range, Complex & memview ✓ Retrieving Data Type: type() ✓ Multi Assignments & Casting ✓ Unpack Collection, Outputs
Day 4: Python Operators	**Day 5: Python Loops, Iterations**	**Day 6: Python Collections**
✓ Arithmetic, Assignment Ops ✓ Comparison Operators ✓ Logical, Identity Operators ✓ Member, Bitwise Operators ✓ Operator Precedence ✓ If ... Else Statement, Pass ✓ Short Hand If, OR, AND ✓ ELIF and ELSE IF Statements ✓ Expressions, Ternary OPs	✓ Python Loop & Realtime Use ✓ Python While Loop Statement ✓ Break and Continue Statement ✓ Using Print with While() ✓ Iterations & Conditions ✓ Exit Conditions & For Loops ✓ Break, Continue & Range ✓ __iter__() and __next__() ✓ iter() and Looping Options	✓ Python Collections (Arrays) ✓ list() Constructor, print() ✓ Python Tuples, Tuple Items ✓ tuple() Constructor, Usage ✓ Python Sets : Syntax Rules ✓ Duplicates, Types, Ordered ✓ Python Dictionaries: Usage ✓ Changeable, Ordered Data ✓ Dictionary Construct, type()

Day 7: Python Functions ✓ Python Functions & Usage ✓ Function Parameters ✓ Arguments, **kwargs ✓ Default & List Parameters ✓ Python Lambda Functions ✓ Anonymous Functions ✓ Recursive Functions, Usage ✓ Return & Print @ Lamdba	**Day 8: Python Classes & Arrays** ✓ Python Classes & Objects ✓ __init__() Function ✓ __str__() Function ✓ Self Parameters & Objects ✓ Python Inheritance & Classes ✓ Parent & Child Classes ✓ __init__() & super() Function ✓ Polymorphism in Python	**Day 9: Python Modules** ✓ import Python Modules ✓ Variables in Modules ✓ Built In Modules & dir ✓ datetime module in Python ✓ Date Objections Creation ✓ strftime Method & Usage ✓ imports & datetime.now() ✓ Using Python Constructors
Day 10: Python JSON & RegEx ✓ JSON Concepts, Usage ✓ Dictionary & import json ✓ Python Objects into JSON ✓ Formatting & Ordering ✓ json.dumps, print options ✓ Python Regular Expressions ✓ RegEx Module & Functions ✓ search() & span() , Strings ✓ Using RegEx with JSON	**Day 11: Python User Inputs & TRY** ✓ Try Except, Exception Handling ✓ NameError Resolution ✓ Python Finally Block, Usage ✓ Raise an exception method ✓ TypeError, Scripting in Python ✓ Python User Inputs ✓ Python Index Numbers ✓ Named Indexes, Usage ✓ input() & raw_input()	**Day 12: Python File Handling** ✓ File Handling, Activities ✓ r, a, w, x modes ✓ t, b Operations ✓ Read Only Parts ✓ Loop, Write, Close Files ✓ Appending, Overwriting ✓ import os, path.exists ✓ f.open, f.write ✓ f.read, f.close
Day 13: Data Analytics - Pandas ✓ Python Modules & Pandas ✓ Pandas Codebase & Usage ✓ Installation of Pandas ✓ import pandas.DataFrame ✓ Checking Pandas Version ✓ Pandas Series, arrays ✓ Labels : Creation, Use ✓ series(), print()	**Day 14: Data Analytics - DataFrames** ✓ Indexes & Named Options ✓ Locate Row and Load Rows ✓ Row Index & Index Lists ✓ Load Files Into a DataFrame ✓ pd.read_csv() Function ✓ pd.options.display.max_rows ✓ df.to_string() Function ✓ tail() & null() Function	**Day 15: Data Analytics - Pandas** ✓ Pandas - Cleaning Data ✓ Replace, Transform Columns ✓ Data Discovery & Column Fill ✓ Identify & Remove Duplicates ✓ dropna(), fillna() Functions ✓ Pandas - Data Correlations ✓ Good & Bad Correlation ✓ Data Plotting & matlib Lib
Day 16: SQL Server & Python - 1 ✓ SQL Server DB Engine ✓ Azure Data Studio Tool ✓ sp_execute_external_script ✓ Input Data & Result Sets ✓ DDL & DML with Python ✓ SQL_out, SQL_in ✓ Variables & Parameters ✓ Versions, Package List ✓ WITH RESULT SETS Options	**Day 17: SQL Server & Python - 2** ✓ pandas.Series with SQL Server ✓ Indexing Methods in Realtime ✓ Convert series to data frame ✓ Output values into data.frame ✓ pymssql package in SQL Server ✓ pip list & Package Manager ✓ Python runtime, Py Package ✓ pymssql.connect & Usage ✓ Cursor Variables & Usage	**Day 18: Power BI with Python** ✓ Using Python Script Visual ✓ PyScript Options & Tuning ✓ Settings, Labelling Options ✓ Running and Testing Scripts ✓ Data Validations in Power BI ✓ Power BI: ipynb Scripts ✓ Interactive Reports ✓ Data Formatting with Python ✓ End to End Realtime Projects

Resume, Mock Interview + Project FAQs and Solutions

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