



# PROFESSIONAL IT TRAINING PROGRAMME

Python · MS SQL Server · Power BI

*Practical-First | Industry-Ready | Mentor-Led*

<b>Batch Start</b>	May 1, 2026
<b>Total Duration</b>	6 Months (3 Months Training + 3 Months Live Projects)
<b>Schedule</b>	Weekdays · 1 Hour/Day · Flexible Batches
<b>Mode</b>	Mostly Remote and exams at Ernakulam Center
<b>Eligibility</b>	Graduates, IT Professionals, Career Switchers, Students
<b>Certificate</b>	Sevendyne Certified Professional on Completion

## About Sevendyne

Sevendyne Consultancy Services LLP (est. 2016) is a Kochi-based IT consultancy delivering software development, HR/payroll management, and professional training to clients across India, the UK, and Germany. Our trainers are working industry practitioners with real project experience.

## MODULE 1 — PYTHON

Duration: 6 Weeks · Practical Programming + Data Analytics with EDA

Python is the world's most versatile programming language — powering web apps, data analysis, automation, AI, and more. This 6-week intensive will take you from zero to confident Python developer, culminating in hands-on Exploratory Data Analysis (EDA) using real-world datasets.

## Course Structure

### Week 1 Python Fundamentals

- Introduction to Python, Installation & IDE Setup
- Variables, Data Types, Operators
- Strings and String Methods
- Conditional Statements (if/elif/else)
- Loops — for, while



### Week 2 Data Structures

- Lists and List Operations
- Tuples and Sets
- Dictionaries
- Functions and Scope
- Practice Problem Sessions

### Week 3 Intermediate Python

- File Handling (read/write/append)
- Exception Handling (try/except/finally)
- Modules and Packages
- List/Dict/Set Comprehensions
- Lambda, Map, Filter, Reduce

### Week 4 Object-Oriented Programming

- Classes and Objects
- Constructors and Methods
- Inheritance and Polymorphism
- Encapsulation and Abstraction

### Week 5 Python for Data — EDA

- Data Collection Techniques
- Data Cleaning & Preprocessing
- Exploratory Data Analysis (EDA)
- Data Visualization (Matplotlib / Seaborn / Pandas)

### Week 6 Project Week

- Capstone EDA Project on a real dataset
- Code review, presentation, and feedback

## MODULE 2 — MS SQL SERVER

Duration: 2 Weeks · 1 Hour/Day · SQL Server

This comprehensive SQL Server module covers everything from installation to advanced performance tuning. Students will learn to design databases, write complex queries, build stored procedures, handle transactions, and optimize performance on SQL Server 2019.

### Syllabus Topics

#### Getting Started & Tools

- SQL Server core concepts, editions, installation & post-install checks
- SQL Server Management Studio (SSMS) & Books Online
- System databases overview

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## Database Modelling

- Planning databases — columns, data types, primary keys, composite keys
- Default values, check constraints, unique constraints
- Relationships: one-to-many, one-to-one, many-to-many, referential integrity
- Normalization: 1NF, 2NF, 3NF, de-normalization, computed columns

## Querying Data — Transact-SQL

- SELECT, WHERE, LIKE, IN, BETWEEN, AND, OR, NOT, SELECT DISTINCT
- ORDER BY — single/multiple columns, descending, collation, ordinal
- INSERT, UPDATE, DELETE, MERGE, TRUNCATE, DROP differences
- GROUP BY, HAVING, ROLLUP, CUBE, GROUPING SETS
- TOP clause — PERCENT, WITH TIES, usage in DML statements

## Joins & Set Operations

- INNER JOIN, LEFT/RIGHT/FULL OUTER JOIN, CROSS JOIN, SELF JOIN
- MERGE, UNION, INTERSECT, EXCEPT to combine tables

## SQL Functions

- Arithmetic: ABS, CEILING, FLOOR, POWER, ROUND, SQRT
- String: CHARINDEX, REPLACE, STUFF, PATINDEX, LEFT, RIGHT, SUBSTRING
- Date/Time: DATEADD, DATEPART, DATENAME, DATEDIFF, formatting

## Advanced SQL Objects

- Views: creating, scripting, advantages & disadvantages
- Subqueries: correlated, ALL/ANY/SOME/IN, highest/lowest value
- Variables: declaring, SET vs SELECT, scope, global variables
- Conditions: IF/ELSE, EXISTS, CASE WHEN
- Loops: WHILE, BREAK statement
- Importing Data: Excel, CSV, Access via Import/Export Wizard

## Programmability

- Stored Procedures: create, alter, parameters, output parameters, return values
- User-Defined Functions: scalar, table-valued (inline & multi-statement)
- Transactions: BEGIN, COMMIT, ROLLBACK, SAVEPOINT, error handling
- Triggers: DDL, DML, Logon triggers
- Cursors: declaring, fetching, updating, cursor options

## Temporary Objects & Advanced Patterns

- Temporary Tables: usage, dropping, pros & cons
- Table Variables vs Temp Tables
- CTEs (Common Table Expressions) including Recursive CTEs
- Derived Tables, PIVOT/UNPIVOT, Dynamic Pivot

## Error Handling & Performance

- Error functions, TRY/CATCH, THROW, RAISERROR, debugging in SSMS



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- Backup & Restore: full, differential, compression
  - Performance Tuning: query optimization, indexes, execution plans

## MODULE 3 — POWER BI

Duration: 6 Weeks · Business Intelligence & Data Visualization

Power BI is the leading business intelligence platform used by enterprises worldwide. This 6-week program covers the entire pipeline — data connectivity, transformation, data modeling, DAX formulas, advanced analytics, and publishing — with a strong emphasis on real-world projects.

### Syllabus Topics

#### Module 1 — Introduction to Power BI

- Business Intelligence concepts & data analytics workflow
- Power BI ecosystem: Desktop, Service, Mobile
- Power BI architecture, licensing, Power BI vs Excel vs Tableau
- Installing Power BI Desktop

#### Module 2 — Data Connectivity & Power Query

- Connecting to Excel, CSV, SQL Server, Web APIs
- Power Query Editor — data cleaning, transformation, type management
- Removing duplicates and nulls, merge & append queries
- Query folding concepts, introduction to M language

#### Module 3 — Data Modeling

- Star & snowflake schema, fact & dimension tables
- Relationships, cardinality, active vs inactive relationships
- Filter direction, date table creation, model optimization

#### Module 4 — DAX Fundamentals

- DAX syntax & operators, row context vs filter context
- Calculated columns vs measures vs calculated tables
- Context transition

#### Module 5 — Essential DAX Functions

- Aggregation: SUM, AVERAGE, COUNT, COUNTA, COUNTROWS, DISTINCTCOUNT
- Logical: IF, SWITCH, AND, OR, NOT
- Text: CONCATENATE, CONCATENATEX, LEFT, RIGHT, MID, FORMAT
- Date & Time: TODAY, NOW, YEAR, MONTH, DAY, DATEDIFF, EOMONTH

#### Module 6 — Advanced DAX (Core Focus)

- CALCULATE deep dive, FILTER, ALL, ALLEXCEPT, ALLSELECTED
- REMOVEFILTERS, VALUES vs DISTINCT, USERELATIONSHIP



- CROSSFILTER, KEEPFILTERS

### Module 7 — Time Intelligence (High Priority)

- Date table best practices, MTD/QTD/YTD
- SAMEPERIODLASTYEAR, DATEADD, PARALLELPERIOD, rolling totals
- Year-over-Year (YoY) & Month-over-Month (MoM) growth calculations

### Module 8 — Advanced DAX Patterns

- Running totals, RANKX ranking, Top N analysis, Percent of Total
- Dynamic measures, KPI calculations
- Virtual tables: SUMMARIZE, ADDCOLUMNS

### Module 9 — DAX Performance Optimization

- DAX Studio overview, Storage Engine vs Formula Engine
- Optimizing measures, best performance practices

### Module 10 — Data Visualization

- Tables, matrices, bar/column/line charts, cards & KPIs
- Conditional formatting, tooltips, drill-through
- Bookmarks, buttons, dynamic titles using DAX

### Module 11 — Power BI Service & Security

- Publishing reports, workspaces & dashboards, sharing & collaboration
- Row-Level Security (RLS) using DAX
- Scheduled refresh, Power BI licensing overview

### Module 12 — Real-World Projects

- Sales analytics dashboard
- Financial reporting dashboard
- Customer churn analysis
- Inventory & HR analytics
- End-to-end capstone Power BI project

## PROGRAMME STRUCTURE & PRACTICAL PROJECTS

### Phase 1 — Structured Training (3 Months: May – July 2026)

Month 1–2	Python Programming (Weeks 1–6) + MS SQL Server (Weeks 7–8)
Month 3	Power BI — Modules 1 to 12 (Weeks 9–14)
Daily Schedule	1 Hour/Day, Weekdays   Weekend doubt-clearing sessions
Teaching Style	Concept → Demo → Hands-on Lab → Assignment → Review



## Phase 2 — Live Project Practice (3 Months: August – October 2026)

After completing classroom training, students work on real-world industry projects under mentor supervision. Each project is structured with proper requirements, development sprints, code/query reviews, and final delivery — simulating actual corporate workflows.

Python Projects	SQL Server Projects	Power BI Projects
<ul style="list-style-type: none"><li>• EDA on e-commerce dataset</li><li>• Automation scripts</li><li>• API data pipeline</li><li>• OOP mini-application</li></ul>	<ul style="list-style-type: none"><li>• HR database design</li><li>• Sales reporting queries</li><li>• Stored procedure library</li><li>• Performance tuning exercise</li></ul>	<ul style="list-style-type: none"><li>• Executive sales dashboard</li><li>• Financial P&amp;L report</li><li>• Customer churn dashboard</li><li>• HR analytics report</li></ul>

## What You Get

Mentorship	Certificate	Placement Help
<ul style="list-style-type: none"><li>• Weekly 1-on-1 reviews</li><li>• Code &amp; DAX walkthroughs</li><li>• Industry best practices</li><li>• Career guidance</li></ul>	<ul style="list-style-type: none"><li>• Sevendyne Certified badge</li><li>• Project portfolio</li><li>• LinkedIn endorsement</li><li>• Reference letter available</li></ul>	<ul style="list-style-type: none"><li>• Resume building support</li><li>• Mock interview prep</li><li>• Job referral network</li><li>• Freelance project leads</li></ul>

## Investment & Enrolment

Course Fee	₹2,000 per month   Total ₹12,000 for 6 months
Seats	Limited to 10 students per batch — early enrolment advised
Registration	Call or WhatsApp: +91 9544467629
Email	contact@sevendyne.com
Website	www.sevendyne.com
Address	Mayur Business Centre, Chittoor Road, Ernakulam 682035

**Enrol Now — Batch Starts May 1, 2026**