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Power BI Training

Thank you for contacting our **SQL School**. I am **Mr. Sai Phanindra**, trainer for this **Power BI** Course. With 19+ Years of technical expertise exclusively on Database and Azure, BI Technologies, I assure you 100% Practical, Step by Step Classes for this in-depth step by step Power BI course. My Profile @ [linkedin.com/in/saiphanindra/](https://www.linkedin.com/in/saiphanindra/)

<p>Basic to Advanced Power BI training with step by step examples including:</p> <ol style="list-style-type: none"> 1. 7 Design Tools 2. Two Technologies (Power Query, DAX) 3. Two Hosting Platforms (Cloud, Server) 4. Two Realtime Case Studies 5. One Realtime Project. <p>This course is very helpful for:</p> <ol style="list-style-type: none"> 1. Data Analysts 2. Data Engineers 3. Data Scientists 4. Business Analysts 5. Business Intelligence Developers 	 <p>100% Real-Time, Job Oriented Trainings</p> <ul style="list-style-type: none"> • Report Concepts • PBIX Visualizations • Big Data Sources • 50+ Power Query Ex • 50+ DAX Examples • Data Models, RLS • Dashboards, Apps • Report Server, RDL • Copilot & Azure DB • Report Service • PL 300 Guidance <p>New Batch every 15 days</p> <ul style="list-style-type: none"> ✓ Step by Step ✓ Scenario Based ✓ Realtime Project ✓ LIVE Class Videos <p>20 YEARS EXPERIENCE</p> <p>Trainer: Mr. Sai Phanindra linkedin.com/in/saiphanindra www.sqlschool.com Ph : +91 9666 44 0801</p>
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Power BI - Training Options (Plans)

	Inclusions	Duration	Applicable Job Roles
Plan A	Module 1: Power BI	4 Weeks	Data Analyst, BI Developer
Plan B	Module 1: MSSQL, TSQL Queries Module 2: Power BI	7 Weeks	Data Analyst, BI Developer
Plan C	Module 1: MSSQL, TSQL Queries Module 2: Power BI Module 3: Azure Data Engineer	14 Weeks	Data Analyst, BI Developer, Data Engineers,

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Module 1: SQL Server TSQL (MSSQL)

<p>Day 1: Introduction</p> <ul style="list-style-type: none"> ✓ Database Introduction ✓ Types of Databases ✓ Need for & ETL, DWH ✓ BI Implementations ✓ SQL Server Advantages ✓ Version, Editions of MSSQL ✓ Data Engineering Job Roles 	<p>Day 2: Installations</p> <ul style="list-style-type: none"> ✓ SQL Server 2019, 2017 ✓ SSMS Tools Installation ✓ Database Engine (OLTP) ✓ SCM, Configuration Tools ✓ Instance Types, Uses ✓ Authentication Modes ✓ Collation, File Stream 	<p>Day 3: SQL Basics - 1</p> <ul style="list-style-type: none"> ✓ 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
<p>Day 4: SQL Basics - 2</p> <ul style="list-style-type: none"> ✓ 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 	<p>Day 5: Data Imports, Schemas</p> <ul style="list-style-type: none"> ✓ 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 	<p>Day 6: Constraints, Index Basics</p> <ul style="list-style-type: none"> ✓ 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
<p>Day 7: Joins & Views Basics</p> <ul style="list-style-type: none"> ✓ 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 	<p>Day 8: Functions(UDF), Data Types</p> <ul style="list-style-type: none"> ✓ 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 	<p>Day 9: Stored Procedures, Models</p> <ul style="list-style-type: none"> ✓ Stored Procedures & Usage ✓ Creating, Testing Procedures ✓ Encryption, Deferred Names ✓ SPs for Validations, Analysis ✓ System SPs, Recompilation ✓ Normal Forms & Types ✓ Data Models, Self-References
<p>Day 10: Triggers, Temp Tables</p> <ul style="list-style-type: none"> ✓ Need for Triggers ✓ DDL & DML Triggers ✓ Using Memory Tables ✓ Data Replication, Automation ✓ Local & Global Temp Tables ✓ Testing & Using Temp Tables ✓ SELECT .. INTO & Bulk Loads 	<p>Day 11: DB Architecture, Locks</p> <ul style="list-style-type: none"> ✓ 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 	<p>Day 12: Cursors & CTEs, Links</p> <ul style="list-style-type: none"> ✓ 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
<p>Day 13: Merge, Upsert & Rank</p> <ul style="list-style-type: none"> ✓ Need for Merge in ETL ✓ Incremental Loads with SQL ✓ MERGE and RANK Functions ✓ Window Functions, Partition ✓ Identify, Remove Duplicates 	<p>Day 14: Grouping & Cube</p> <ul style="list-style-type: none"> ✓ Group By & HAVING ✓ Cube, Rollup & Grouping ✓ Joins with Group By ✓ 3 Table, 4 Table Joins ✓ Query Execution Order 	<p>Day 15: Self Joins, Excel Analysis</p> <ul style="list-style-type: none"> ✓ Self Joins & Self References ✓ UNION, UNION ALL ✓ Sub Queries with Joins ✓ IIF, CASE, EXISTS Statements ✓ Excel Analytics, Pivot Reports
<p>Realtime Case Study : Health-Care Domain</p>		

Module 2 : Power BI

<p>Day 1: Power BI Introduction</p> <ul style="list-style-type: none"> ✓ 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 	<p>Day 2: Power BI Basic Reports</p> <ul style="list-style-type: none"> ✓ 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 	<p>Day 3: Grouping, Hierarchies</p> <ul style="list-style-type: none"> ✓ 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
<p>Day 4: Visual Sync, Filters</p> <ul style="list-style-type: none"> ✓ 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 	<p>Day 5: Bookmarks, Big Data Access</p> <ul style="list-style-type: none"> ✓ 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 	<p>Day 6: Power BI Visualizations</p> <ul style="list-style-type: none"> ✓ 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
<p>Day 7: Power Query Level 1</p> <ul style="list-style-type: none"> ✓ Power Query (Mashup) ✓ ETL Transformations in PBI ✓ Power Query Expressions ✓ Table Combine Options ✓ Merge, Union All Options ✓ Table Transformations 	<p>Day 8: Power Query Level 2</p> <ul style="list-style-type: none"> ✓ Any Column Transformations ✓ String / Text Transformations ✓ Numeric Analytics & Mashup ✓ Date Time Transformations ✓ Add Column Transformations ✓ Expressions and New Columns 	<p>Day 9: Power Query Level 3</p> <ul style="list-style-type: none"> ✓ Parameters in Power Query ✓ Static Parameters, Defaults ✓ Dynamic Dropdowns, Lists ✓ Linking with Table Queries ✓ Column From Examples ✓ Step Edits, Type Conversions
<p>Day 10: Power BI Cloud - 1</p> <ul style="list-style-type: none"> ✓ Power BI Cloud Concepts ✓ Workspace Creation, Usage ✓ Report Publish & Edits ✓ Semantic Models in Realtime ✓ Dashboard Creation, Usage ✓ Clone, Share, Subscribe ✓ Q&A, Lineage, Settings 	<p>Day 11: Power BI Cloud - 2</p> <ul style="list-style-type: none"> ✓ Data Gateways, Data Refresh ✓ Data Source Configurations ✓ Data Refresh & Scheduling ✓ Gateway Optimizations ✓ Semantic Model Optimizations ✓ Report Optimizations ✓ Dashboard Optimizations 	<p>Day 12: Power BI Cloud - 3</p> <ul style="list-style-type: none"> ✓ 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 <ul style="list-style-type: none"> ✓ Power BI Report Server ✓ SQL Server DB Engine ✓ Report Database, TempDB ✓ Web Service & Server URL ✓ Paginated Reports (RDL) ✓ Report Builder Tool Usage 	Day 14: DAX Level 1 <ul style="list-style-type: none"> ✓ DAX : Purpose, Realtime Use ✓ DAX Calculations Creation, Use ✓ DAX Measures Creation, Use ✓ DAX Functions: IIF, ISBLANK ✓ SUM, CALCULATE Functions ✓ DAX Cheat Sheet : Examples 	Day 15: DAX Level 2 <ul style="list-style-type: none"> ✓ 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 <ul style="list-style-type: none"> ✓ DAX Expressions & Joins ✓ DAX Variables, Usage ✓ Dynamic Report with DAX ✓ SELECTED MEMEBER ✓ Time Intelligence with DAX ✓ PARALLELPERIOD, DATE 	Day 17: Realtime Project Phase 1 <ul style="list-style-type: none"> ✓ Project Requirement Spec ✓ Understanding Data, Formats ✓ Report Pattern Design ✓ Report Design & Modelling ✓ Power Query, DAX, Insights ✓ Analytical Reports in Cloud 	Day 18: Realtime Project Phase 2 <ul style="list-style-type: none"> ✓ Complete Project Solution ✓ Project FAQs, Key Roles ✓ Real-world Considerations ✓ Power BI Admin Concepts ✓ Resume Points, FAQs ✓ PL 300 Exam Guidance

Module 3: Azure Data Engineer

Part 1 : Azure Data Factory (ADF) & Synapse

Day 1: ETL, DWH Introduction <ul style="list-style-type: none"> ✓ Database Introduction ✓ Data Warehouse (DWH) ✓ Data Engineering Work Flow ✓ Cloud Concepts: IaaS, PaaS ✓ SaaS & Azure Cloud Concepts ✓ Azure Resources & Groups ✓ Storage, ETL, IoT Resources 	Day 2: Azure Intro, Azure SQL <ul style="list-style-type: none"> ✓ Azure SQL Server, SQL DB ✓ Azure SQL Database (OLTP) ✓ Azure SQL Pool (DWH) ✓ Connections from SSMS Tool ✓ Connections from ADS Tool ✓ Pause / Resume SQL Pool ✓ Source Data Configurations 	Day 3: Azure Synapse (DWH) <ul style="list-style-type: none"> ✓ Synapse Pool Architecture ✓ Control Node, Compute Node ✓ DMS & Partitioned Tables ✓ Creating Tables with TSQL ✓ Distributions: RR, Hash, Repl ✓ Big Data Loads with TQL ✓ Important DMFs & DMVs
Day 4: Azure Data Factory (ADF) <ul style="list-style-type: none"> ✓ Need for ADF & Pipelines ✓ Linked Services & IRs ✓ Datasets, Pipelines, Triggers ✓ Copy Data Activity & CDT ✓ Data Loads Pipelines, DTUs ✓ Pipeline Monitoring, Edits 	Day 5: ADF Incremental Loads - 1 <ul style="list-style-type: none"> ✓ File Incremental Loads ✓ Storage Account, Data Lake ✓ Binary Copy, Schema Drift ✓ Staging Concept in ADF ✓ DOCP, Logging & Consistency ✓ Polybase Concept & Tuning 	Day 6: ADF Incremental Loads - 2 <ul style="list-style-type: none"> ✓ Implement SCD with ADF ✓ Self Hosted IR: Realtime Use ✓ On-premise Data: Incr Loads ✓ Copy Method : Upsert, Keys ✓ Staging & ADF Optimizations ✓ Pipeline Runs, Activity IDs
Day 7: ADF Data Flow - 1 <ul style="list-style-type: none"> ✓ Data Flow Transformations 	Day 8: ADF Data Flow - 2 <ul style="list-style-type: none"> ✓ Working with Multiple Tables 	Day 9: ADF Data Flow - 3 <ul style="list-style-type: none"> ✓ Pivot Transformation

<ul style="list-style-type: none"> ✓ Spark Clusters for Debugging ✓ Optimized Clusters, Preview ✓ Conditional Split, SELECT ✓ Sort, Union Transformations ✓ Pipelines with Data Flow 	<ul style="list-style-type: none"> ✓ Join Transform, Broadcast ✓ Row Filters, Column Filters ✓ Surrogate Keys, Derived Cols ✓ ETL Loads Dates, Sink Options ✓ Aggregated Data Loads 	<ul style="list-style-type: none"> ✓ Group By & Pivot Keys ✓ Column Pattern, Deduplicate ✓ Lookup, Cached Lookup ✓ Tuning Transformations ✓ Tuning Data Flow, Spark
<p>Day 10: Synapse Analytics - 1</p> <ul style="list-style-type: none"> ✓ Azure Synapse Analytics ✓ Dedicated SQL Pools ✓ TSQL: Stored Procedures ✓ Synapse Pipelines, Tuning ✓ SP Activity in Pipelines, Jobs ✓ Comparing ADF & Synapse 	<p>Day 11: Synapse Analytics - 2</p> <ul style="list-style-type: none"> ✓ Serverless Pools in Synapse ✓ TSQL Scripts with Serverless ✓ ADLS Data Imports & ELT ✓ Synapse Aggregation, Analytics ✓ Synapse Optimizations ✓ Synapse Security & Logins 	<p>Day 12: Synapse Analytics - 3</p> <ul style="list-style-type: none"> ✓ Apache Spark Pool & Usage ✓ Synapse Analytics with Pools ✓ PySpark Staging, Aggregations ✓ Spark Queries & Python ETL ✓ Python Notebooks, Pipelines ✓ Integrating Python with DWH
<p>Day 13: Parameters, SCD & ETL</p> <ul style="list-style-type: none"> ✓ ADF Templates in Realtime ✓ Table Incremental Loads ✓ Control Tables, Watermarks ✓ Pipeline Parameters, SPs ✓ Dynamic Data Sets, SCD 	<p>Day 14: CDC @ ETL, ELT & Tuning</p> <ul style="list-style-type: none"> ✓ Using CDC in ADF ✓ Control Tables (CT): Upserts ✓ Handling Inserts, Updates ✓ SCD Type 1 & Type 2 ✓ ADF, Synapse : Limitations 	

Part 2 : Azure Data Lake Storage & Stream Analytics

<p>Day 1: Azure Intro & Storage</p> <ul style="list-style-type: none"> ✓ Storage, ETL, IoT Resources ✓ Azure Storage Components ✓ Azure Storage Account, HNS ✓ Azure Data Lake Storage ✓ Azure Storage Explorer Tool ✓ Storage Explorer Config ✓ Storage Account Properties 	<p>Day 2: Azure Storage Operations</p> <ul style="list-style-type: none"> ✓ BLOB Storage: Containers ✓ Storage Browser, Explorer ✓ File & Folder Uploads, Edits ✓ Azure Tables: Row Key ✓ Partition Key, Timestamp ✓ Use Cases of BLOB Storage ✓ Use Cases of Azure Tables 	<p>Day 3: Azure Storage Security</p> <ul style="list-style-type: none"> ✓ Realtime use of Keys ✓ Access Keys & Admin Access ✓ SAS Keys Generation, Ips ✓ Creating, Using Entra Users ✓ Azure AD Users, Groups ✓ IAM & RBAC with Entra Users ✓ ACLs and ADLS Security
<p>Day 4: Azure SQL DB Migrations</p> <ul style="list-style-type: none"> ✓ On-Premise SQL DB bacpac ✓ Azure SQL Deployment ✓ Azure Storage from SSMS ✓ Azure SQL DB Migration ✓ Migration Verifications ✓ Testing Migrations in SQL 	<p>Day 5: Azure Stream Analytics</p> <ul style="list-style-type: none"> ✓ Azure IoT Hubs & Devices ✓ APIs with Connection Strings ✓ Azure Steam Analytic Jobs ✓ Inputs, Outputs, SAQL Query ✓ LIVE Feed: JSON, AVRO Files ✓ Watermark & LIVE Stats 	<p>Day 6: Azure Stream Analytics</p> <ul style="list-style-type: none"> ✓ Azure IoT Hubs & Devices ✓ APIs with Connection Strings ✓ Azure Steam Analytic Jobs ✓ Inputs, Outputs, SAQL Query ✓ LIVE Feed: JSON, AVRO Files ✓ Watermark & LIVE Stats

Day 7: Azure Key Vaults, Alerts <ul style="list-style-type: none"> ✓ Azure Encryptions @ REST ✓ Azure Key Vaults & Keys ✓ SMK & CMK Encryptions ✓ Azure Metrics: Ingress ✓ Egress, E2E Latency Issues ✓ Performance Tuning Options 	Day 8: Azure Storage Optimization <ul style="list-style-type: none"> ✓ BLOB Types & Content Types ✓ Hot, Cool, Cold, Archive Types ✓ Creating, Using Access Policies ✓ Immutable Storage, Rotation ✓ Containerization, Indexing ✓ Replication: LRS, ZRS, RA-GRS 	Day 9: Azure Pricing, Functions <ul style="list-style-type: none"> ✓ Azure Logic Apps : Usage ✓ Log Apps Usage in ETL ✓ Snapshots, Azure Functions ✓ Azure Functions Realtime Use ✓ ETL & DWH with Functions ✓ Azure Resource Pricing
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Part 3 : Azure Databricks & Spark, PySpark

Day 1: Azure Big Data & Spark <ul style="list-style-type: none"> ✓ Azure Big Data & Spark ✓ Azure ETL & DWH Databases ✓ Azure Spark, HIVE Metastore ✓ Azure Databricks Service ✓ Spark Cluster (Personal) ✓ Unity Catalog & Azure VM 	Day 2: Spark Cluster Operations <ul style="list-style-type: none"> ✓ DBFS : Flat File Imports ✓ Table Conversions using GUI ✓ Spark Clusters: Table Creations ✓ Basic Transformations in Spark ✓ SQL Notebooks: Creation ✓ Default DB Queries, Cloning 	Day 3: Python & PySpark, ETL <ul style="list-style-type: none"> ✓ Python Fundamentals ✓ Python Dataframes : ETL ✓ Python For Big Data, Pandas ✓ Python Notebooks, Views ✓ Aggregated Loads to Spark ✓ Spark DB Creations, Tables
Day 4: PySpark & ADLS, Widgets <ul style="list-style-type: none"> ✓ Creating Spark Databases ✓ Spark Tables, Catalog Info ✓ PySpark with ADLS Storage ✓ Using Widgets for ADLS Keys ✓ PySpark Variables & Widgets ✓ Using Variables in Functions ✓ Spark SQL with Control Text ✓ Using Variables in Spark SQL 	Day 5: ADB Jobs, Delta Tables <ul style="list-style-type: none"> ✓ Azure Databrick Jobs ✓ Azure Workflows & Tasks ✓ Notebook Schedule Options ✓ Continuous Jobs, Notifications ✓ Delta Tables & Data Cleansing ✓ SCD (Merge Into), Contact, etc ✓ Creating, Using Dataframes ✓ Multi Dataframe Joins 	Day 6: Scala Notebooks & ETL <ul style="list-style-type: none"> ✓ Scala Notebooks : Purpose ✓ Aggregated Data Loads ✓ Incremental Data Loads ✓ Widgets & Jobs with Scala ✓ Python Versus Scala ✓ Converting Python to Scala ✓ JVM Benefits, SQL DB Conn" ✓ SQL DB Loads with Scala
Day 7: Databricks Architecture <ul style="list-style-type: none"> ✓ Azure Databricks Services ✓ Cluster Components & DBFS ✓ RDD, DAG, Photon, SpotLight ✓ Spark Parititioned Tables ✓ Cluster Manager: Spark Jobs ✓ Databricks Runtime (DBR) ✓ Databricks Security ✓ Workspace Security ✓ Notebook & Job Security 	Day 8: Medallion Architecture <ul style="list-style-type: none"> ✓ Medallion Architecture in ETL ✓ DWH Data Loads & Incr Loads ✓ Bronze, Silver & Gold Data ✓ Processing Raw Data Files ✓ Data Cleansing, Formatting ✓ Aggregation Advantages ✓ DBES & Node Architecture ✓ Unity Catalog Concept ✓ LUNs and Unity Catalog 	Day 9: Delta LIVE Tables (DLT) <ul style="list-style-type: none"> ✓ Creating Delta LIVE Tables ✓ DLT Pipelines in ETL, DWH ✓ Automated Incr Loads ✓ Control Tables, Timestamp ✓ SCD Type 1 with DLT ✓ SCD Type 2 with DLT ✓ Automated Merge Into Stmt ✓ Delta Tables Vs DLT ✓ Merge Into Vs DLT Pipeline

Azure DevOps Integration with ADF, Databricks

Real-time Project (Azure Data Engineer) + Resume Guidance

Azure Data Engineer (DP 203 Exam) – Guidance & Samples

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