

### Structured Query Language (SQL)

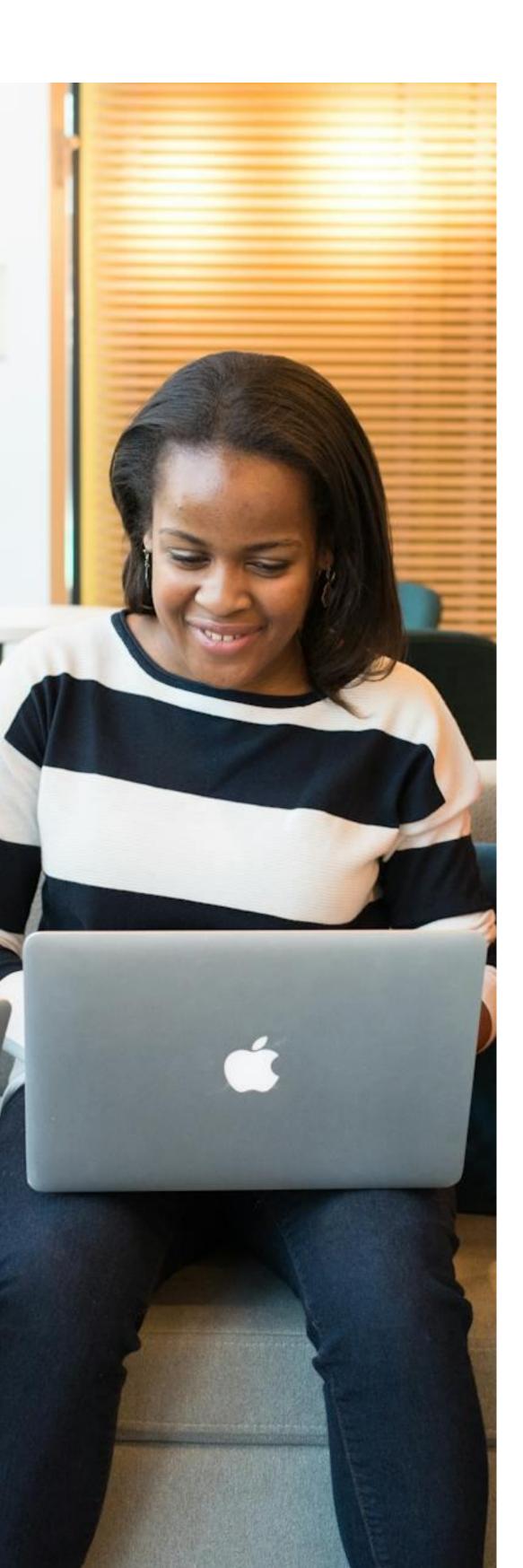
SQL, or Structured Query Language, is the backbone of modern data management and analysis.

Our comprehensive SQL course is designed to equip you with the essential skills needed to harness the full potential of databases and make informed decisions based on data.

Led by industry experts with extensive experience in database management and analytics, our curriculum

covers everything from the basics of SQL syntax to advanced querying techniques. Participants will learn how to manipulate and retrieve data from databases, perform complex analysis, and optimize queries for maximum efficiency.

What sets our course apart is its practical focus. Through a series of interactive exercises and real-world projects, you'll apply your newfound SQL skills to solve common data challenges and gain valuable experience working with real datasets.



### Learning Outcome

- Participants will learn the SQL
  Fundamentals
- Being able to use SQL Tools and understand the Environment
- Understanding different data types
- Get an Overview of Database,
  Database Management Systems (DBMS), RDBMS and Tables
- Participants will be able to carry out Data Manipulation
- Data Aggregation and Grouping
- Data Filtering and Conditional Logic
- Ability to carry out Data Modeling and Schema Design
- Understand Subqueries and
  Joins

# MONTH AUGUST

### **Introduction & Foundation**

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Who should attend?

- Anyone interested in Data
- Database administrator
- Business intelligence professionals
- Software developers
- Data analyst
- Students

## MONTH AUgust WEEK 1

- 1. Introducing Tables, Database, DBMS, RDBMS
- 2. Introduction- Knowing what SQL is all about
- 3. Understanding Databases, types, Database management systems, type, RDBMS, categories, features and Tables.

### WEEK 2

- 1. SQL Installation and Datatypes
- 2. Installation and work environment
- 3. Creating a Database and Table
- 4. Understanding datatypes and constraints
- 5. Numeric Types: Integer and Floating-point
- 6. Textual Types: Character, VARCHAR, and TEXT
- 7. Temporal Type: Date
- 8. Logical Type: BOOLEAN



### WEEK 3

- 1. Fundamentals of SQL Command
- 2. Crafting Queries with SELECT
- 3. Specifying Sources with FROM
- 4. Filtering Results Using WHERE
- 5. Organizing Output with ORDER BY
- 6. Grouping Data with GROUP BY
- 7. Adding Data with INSERT
- 8. Changing Data with UPDATE
- 9. Removing Data with DELETE

## MONTH AUGUST WEEK 4

- 1. Filtering, Sorting and Data Aggregation
- 2. Mastering the WHERE Clause
- 3. Combining Conditions with AND, OR
- 4. Sorting Techniques with ORDER BY
- 5. Calculating Totals with SUM
- 6. Averaging Values with AVG
- 7. Counting Entries with COUNT
- 8. Finding Minimums with MIN
- 9. Discovering Maximums with MAX
- 10. Distinct, Aliases and Limit

## MONTH September

### WEEK 5

- 1. Exploring Table Relationship
- 2. SQL Operators( Arithmetic, Comparison and Logical)
- 3. SQL Comments( single and multi-line)
- 4. Functions(Aggregate, Scalar, Strings, Date and time)
- 5. Linking Tables with INNER JOIN
- 6. Including All with LEFT JOIN and RIGHT JOIN
- 7. Combining Everything with FULL OUTER JOIN

### WEEK 6

- 1. The Power of Subqueries, Variables and Views
- 2. Utilizing Subqueries in Data Filtering
- 3. The Dynamics of Correlated Subqueries
- 4. Establishing Views
- •
- 5. Altering Views
- 6. Discontinuing Views
- 7. SQL Variables
- 8. Flow Control( IF-ELSE, WHILE, CASE)
- 9. WEEK-7 and 8
- 10. Three Capstone projects
- 11. Feedbacks
- 12. Project Review and Correction



# Power B

## **Power Bl**

#### Overview

This Course offers an extensive two-month program that arms learners with the necessary skills to master data analytics. It delves into the core of Power BI capabilities, from data processing and model creation to advanced analytics and visualization techniques. The curriculum is designed to provide proficiency in leveraging Power BI for effective data storytelling, enabling participants to craft interactive reports and dashboards. With practical exercises and real-world applications, attendees will emerge with the expertise to implement, manage, and share data insights using Power BI in any professional environment

## Learning Outcome

- Participants will learn how to use Power BI for data analysis and datadriven decision-making.
- Understanding of how to perform Data Transformation: Use Power
- Query to organize and clean raw data for analysis.
- Ability to design straightforward and high-performing data models, including DAX expressions for analytical calculations.
- Participants will learn how to visualise data by creating compelling visualizations and reports that give actionable information.
- Participants will use Power BI for advanced data analysis, including statistical summaries, outlier detection, and time series analysis.
- Ability to use the Power BI service to share reports and dashboards, as well as set up data update schedules.
- Experience in excellent collaboration and sharing skills.
- These outcomes will help leverage Power BI to its full potential, turning data into meaningful insights that can inform business strategies.

# MONTH

#### **Introduction & Foundation**

Participants will establish a strong base in data analytics principles and key functionalities during the first month of the Power BI training. They will explore the responsibilities of a data analyst, the core concepts of data visualization, and how to utilize essential Power BI tools. Furthermore, students will immerse themselves in Power BI design principles, including data-centric design, visualization aesthetics, narrative techniques, data manipulation and best practices for creating accessible and informative dashboards.

### WEEK 1

- 1. Getting Started
- 2. Role of a data analyst
- 3. Introduction to Power BI
- 4. Power BI installation

5. Navigating through the Power BI environment

6. Connecting power BI DESKTOP to the data source (getting data)

7. Understanding different data sources

### WEEK 2

- 1. Power Query/Data Cleansing
- 2. Working with the query editor
- 3. Power BI query overview
- 4. Data cleansing and preparation with power query

# MONTH

### WEEK 3

- 1. Data Visualisation
- 2. Creating our first visualisation using implicit calculation
- 3. Understanding charts- piechart, column chart, treemap, filled map and card
- 4. Visualisation with measure
- 5. Water chart
- 6. Scatter chart
- 7. Tables and matrix table
- 8. Gauge
- 9. Area chart
- 10. Line chart
- 11. Key influencers
- 12. Waterfall chart
- 13. Decomposition tree
- 14. Creating our first visualisation using implicit calculation

15. Importing visuals
 16. Showing trends and forecast
 17. Deploying our first report



- 1. Data Modelling
- 2. Introduction to power BI data model
- 3. Overview of fact/data table and dimensions/lookup table
- 4. Building a normalised model
- 5. Managing data model relationships
- 6. Understanding cardinality

# MONTH September

### WEEK 5

- 1. DAX
- 2. Introduction to DAX- Explicit calculation
- 3. Evaluation context in DAX
- 4. Creating calculated columns and measure building a data table
- 5. Date and time function
- 6. Text function
- 7. Time Intelligence functions
- 8. Filter functions
- 9. Information function
- 10. Logical function
- 11. Math and stat function
- 12. Role-playing dimensions
- 13. Working with quick measures
- 14. Working with variables in DAX

### WEEK 6

- 1. Power BI Service
- 2. Data Cloud Deployment
- 3. Collaboration
- 4. Report Sharing
- 5. Power BI App
- 6. Publishing report to power bi-service
- 7. Workspaces
- 8. Reports vs Dashboard

### WEEK 7 and 8

Capstone Project- Finance, HR and Sales

# COST OF PROGRAM PACKAGES

### A. SQL

Class Duration- 2 Month

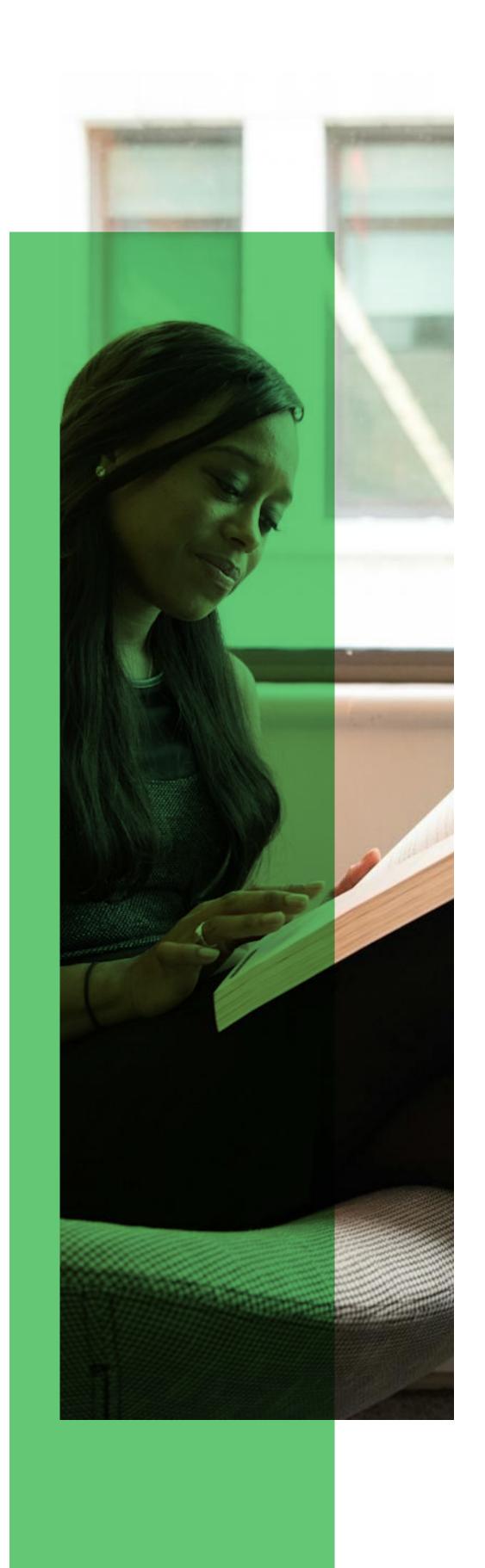
Prices

- Virtual: **₩**120,000
- Physical: **₩**150,000

### **B. POWER BI**

Program Duration- 2 Month Prices

Virtual: ₩120,000Physical: ₩150,000



### C. Combo Package POWER BI and SQL Program Duration- 3 Months Prices

- Virtual: **₩**200,000
- Physical: **₩**250,000