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DATA TELLS A STORY. BE THE STORYTELLER

Data Analytics Training Curriculum

Part 1: Beginner to Intermediate SQL Training Topics

During this portion of the training, you will receive 25 hours of training that will cover core beginner to intermediate SQL training topics that will educate you on how to comfortably extract data from a database.

Database structure
Order by
Where
Aggregate functions
Date functions
Joins (Inner, and Full)
Calculated fields
Text, dates, and numeric data types
Cast

What will the training cover?

This boot camp will help students learn the cycle of data analytics from start to finish while utilizing SQL, Excel, and Power BI. First, students will learn the basics of extracting data via SQL. Next, students will level up their beginner to intermediate SQL skills to more advanced SQL functions. In this portion of the training, students will be able to go from writing one-page queries to up to 3-page queries.

Once students master how to extract complex data from SQL, they will then streamline the queried data into Excel summary reports via formatting and popular analysis functions, such as SUMIFS, SUBTOTALS, and conditional formatting etc.

Finally, we will round out the training by connecting your SQL database and Excel datasets in Power BI to build dashboards. You will be able to create dynamic dashboards from queried SQL data and Excel data sources and publish your dashboard reports online.

Part 2: Advanced SQL Training Topics

During this portion of the training, you will receive 25 hours of training that will cover core advanced SQL training topics that will educate you on how to ramp up your SQL skills to the next level. After this portion of the training, you will be able to write up to 3-page queries.

Having
Subqueries
Unions
Group By
Case statements
Complex and nested join (Inner, full, left, and right joins)

Part 2: Advanced SQL Training Topics

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Having
Subqueries
Unions
Group By
Case statements
Complex and nested join (Inner, full, left, and right joins)

Part 3: Microsoft Excel Reporting Training Topics

During this portion of the training, you will receive 18 hours of training that will teach you how to extract data from SQL to Excel and be able to build and format Excel-ready summary reports.

Prerequisites

Office 365
Creating new worksheets
Hiding worksheets
Deleting worksheets
Locating a cell
Data entry (inputting data into a cell)
Know the difference between columns and rows
Copying and pasting data
Opening a workbook
Know the difference between a workbook vs. worksheet
Saving a workbook
Inserting and deleting rows and columns

Basic Topics

- Filtering
- Sorting
- Formatting
- Data Cleansing
- Cell referencing
- Mathematical operations and calculations
  - Sum
  - Average
  - Min
  - Max
  - Counta
  - Addition
  - Subtraction
  - Division
  - Multiplication

Formula Topics

- Xlookups
- If statements
  - Basic If/Then Logic Statements
  - Error correcting If/Then Logic Statements
- Error correcting formulas
- Sumifs
- Text and dates
  - Concatenate
  - Find and replace
  - Left
  - Right
  - Month, Day, Year
  - Date calculations

Part 4: Power BI Dashboard Training Topics

During this portion of the training, you will receive 24 hours of training that will teach you how to streamline your data flow from SQL and Excel into Power BI. In the training, you will learn how to manipulate your data in Power BI and build interactive dashboards.

Prerequisites

Windows Operating System or Macbook Parallel System

No prior knowledge of Power BI is required. Students will be provided prerequisite self-paced videos prior to the start of the boot camp.

Data Visualization

- Data source connections
- Data import
- Chart selections
- Filtering and sorting data
- Formatting (Colors, themes, branding, fonts, logos)
- Dynamic dashboards
- Aggregations
- Data types
- Web Services upload (upload dashboards to web browsers)

Data Modeling

- Data refresh and data source modification
- Relationships and cardinality
- DAX measures vs. columns
- Data transformation via Power Query
- Intermediate formulas
  - Calculate
  - Filter
  - Aggregates (SUM, COUNT, AVG, etc.)


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