

THE DATA IMMERSED

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Data Analytics Program

Official Course Curriculum

Excel | SQL | Power BI

Three months of instruction, plus project, presentation and career weeks

Welcome to the Program

Welcome to the Data Immersed Data Analytics Program. Over the coming months you will move from complete fundamentals to building and presenting full analytics projects, using the same three tools that employers ask for most often: Microsoft Excel, Microsoft SQL Server, and Microsoft Power BI.

This document is your official curriculum. It shows exactly what will be taught, in what order, and what is expected of you at each stage. Please read it fully before the first class and keep it for reference throughout the program.

Our goal is not simply to teach you tools. It is to make you an analyst who can take a raw dataset, ask the right question, clean and analyse the data, and present recommendations that a business can act on.

How the Program Works

Structure

- Three months of core instruction, with one month dedicated to each tool: Excel, then SQL, then Power BI.
- Two classes per week during instruction weeks, giving eight classes per month.
- Additional weeks for projects, presentation, and career preparation. These fall outside the three months of instruction and are included at no extra cost.
- Every module ends with full data analysis classes where we work through a complete project from start to finish, followed by a project you complete on your own.

The Data Analysis Framework

In every module, the final classes follow the same six stage framework. By the end of the program you will have applied it three times, once in each tool.

- Ask: understand the business problem and define the question you are answering.
- Prepare: identify, collect and assess the data you need.
- Process: clean the data and make it reliable enough to analyse.
- Analyze: explore the data, find patterns, and answer the question.
- Share: visualise the findings and communicate them clearly.
- Act: deliver conclusions and practical recommendations to stakeholders.

Tools You Will Use

- Microsoft Excel for spreadsheet analysis, reporting and dashboards.

- Microsoft SQL Server, with SQL Server Management Studio, for querying databases.
- Microsoft Power BI Desktop for data modeling, visualisation and business intelligence.

What Is Expected of You

- Attend both classes each week and complete the practice work given after each class.
- Submit each module project on time. The projects are what build your portfolio.
- Have a working laptop with a stable internet connection. Installation is guided in class where required.
- Ask questions. Support is available between classes, and no question is too basic.

Month One: Microsoft Excel

Focus: building your analytical foundation. You will learn how to work confidently in Excel, clean and summarise data, and complete your first end to end analysis project.

Week	Day	Topic	What You Will Learn
Week 1	Day 1	Introduction to Data Analytics and Introduction to Excel	What data analytics is, the role of a data analyst, career paths in the field, and a full tour of the Excel workspace: workbooks, worksheets, cells, ranges, and data entry.
Week 1	Day 2	Basic Excel Functions	Core functions including SUM, AVERAGE, COUNT, COUNTA, MIN, MAX, and ROUND.
Week 2	Day 1	Logical Functions and Conditional Formatting	IF, nested IF, AND, OR, IFERROR plus conditional formatting to highlight patterns, duplicates, and outliers.
Week 2	Day 2	Text Functions and Data Cleaning	Cleaning and reshaping text with LEFT, RIGHT, MID, LEN, TRIM, CONCAT, TEXT and Text to Columns, then joining datasets.
Week 3	Day 1	Pivot Tables and Pivot Charts	Building pivot tables, grouping and filtering, slicers, calculated fields, and turning summaries into pivot charts and simple dashboards.
Week 3	Day 2	Full Data Analysis Project Class 1	Ask and Prepare. Defining the business question, understanding stakeholders, identifying the data required, and assessing data quality and structure.
Week 4	Day 1	Full Data Analysis Project Class 2	Process and Analyze. Cleaning the dataset, handling blanks, duplicates and inconsistencies, then analysing to answer the business question.

Week	Day	Topic	What You Will Learn
Week 4	Day 2	Full Data Analysis Project Class 3	Share and Act. Visualising results, building the dashboard, writing insights, and presenting clear recommendations to a stakeholder.
Week 5	Project	Excel Project Week	No new lessons this week. You will receive an Excel project brief and dataset and work independently, with support available throughout the week.
Week 6	Review	Project Presentation Week	Each student presents their Excel project, walks through their analysis and recommendations, and receives feedback from the instructor and peers.

Month Two: Microsoft SQL

Focus: working with databases. You will learn to write queries that pull, combine and summarise data directly from a relational database, which is where most business data actually lives.

Week	Day	Topic	What You Will Learn
Week 1	Day 1	Introduction to SQL and Installation	Why analysts use SQL, how relational databases are organised, and full installation and setup of Microsoft SQL Server and SQL Server Management Studio.
Week 1	Day 2	Data Types, DDL and DML	SQL data types, then Data Definition Language (CREATE, ALTER, DROP) and Data Manipulation Language (INSERT, UPDATE, DELETE) for building and maintaining tables.
Week 2	Day 1	Basic SQL Syntax	Writing queries with SELECT, WHERE, ORDER BY, DISTINCT, TOP, LIKE, IN, BETWEEN, and logical operators to filter and sort data accurately.
Week 2	Day 2	Aggregate Functions and CASE Statements	SUM, COUNT, AVG, MIN and MAX with GROUP BY and HAVING, plus CASE statements for conditional logic and categorisation inside queries.
Week 3	Day 1	Joins	Combining data across multiple tables using INNER JOIN, LEFT JOIN, RIGHT JOIN, FULL JOIN, and self joins, and knowing which join answers which question.

Week	Day	Topic	What You Will Learn
Week 3	Day 2	Subqueries	Writing subqueries in SELECT, FROM and WHERE clauses, nested queries, and an introduction to common table expressions for cleaner, more readable SQL.
Week 4	Day 1	Full Data Analysis Project Class 1	Ask, Prepare and Process using SQL. Framing the business question, exploring the database, and cleaning and preparing the data with queries.
Week 4	Day 2	Full Data Analysis Project Class 2	Analyze and Share using SQL. Writing the analysis queries, interpreting the output, documenting findings, and presenting recommendations.
Week 5	Project	SQL Project Week	No new lessons and no presentation this month. You will receive a SQL project brief and database and submit your queries and written findings at the end of the week.

Month Three: Microsoft Power BI

Focus: business intelligence and storytelling. You will learn to model data, write DAX measures, and build interactive dashboards that stakeholders can use to make decisions.

Week	Day	Topic	What You Will Learn
Week 1	Day 1	Introduction to Power BI, Connecting and Loading Data	The Power BI ecosystem and interface, installing Power BI Desktop, and connecting to and loading data from Excel, CSV files, and SQL Server.
Week 1	Day 2	Data Cleaning and Transformation	Using Power Query Editor to remove duplicates, handle nulls, split and merge columns, change data types, unpivot data, and append and merge queries.
Week 2	Day 1	Data Modeling and Relationships	Building a clean data model: fact and dimension tables, star schema, cardinality, filter direction, and creating and managing table relationships.
Week 2	Day 2	Basic Visualization	Choosing the right chart for the question, building bar, column, line, pie and card visuals, and using slicers, filters, and drill down.
Week 3	Day 1	Measures and DAX	Calculated columns versus measures, DAX syntax, and key functions including SUM, CALCULATE, FILTER, DIVIDE, time intelligence, and quick measures.
Week 3	Day 2	Advanced Visualization Techniques	Dashboard design principles, bookmarks, tooltips, conditional formatting, custom visuals, page navigation, and applying a consistent theme and layout.

Week	Day	Topic	What You Will Learn
Week 4	Day 1	Full Data Analysis Project Class 1	Ask, Prepare and Process in Power BI. Defining the question, loading and cleaning the dataset, and building the model that supports the analysis.
Week 4	Day 2	Full Data Analysis Project Class 2	Analyze and Share in Power BI. Building the report, writing the measures, designing the final dashboard, and delivering insights and recommendations.
Week 5	Project	Power BI Project Week	No new lessons this week. You will receive a Power BI project brief and dataset and build a complete, presentation ready dashboard.

Final Week: AI and Portfolio

This week sits outside the three months of instruction. It is where everything you have built becomes something you can show to an employer or client.

Week	Day	Topic	What You Will Learn
Final Week	Day 1	AI for Data Analysis	Using AI tools responsibly in a real analyst workflow: prompting for analysis, writing and debugging formulas and SQL, cleaning and documenting data, and interpreting results faster without losing accuracy.
Final Week	Day 2	Portfolio Creation	Turning your three class projects into a professional portfolio: structuring case studies, writing project documentation, publishing your work, and positioning your portfolio for job applications.

What You Will Have at the End

- Working proficiency in Excel, SQL and Power BI, taught in the order analysts actually use them.
- Three complete data analysis projects, one in each tool, done from question to recommendation.
- Experience presenting your analysis and defending your findings.
- A practical understanding of how to use AI tools inside a real analyst workflow.
- A professional portfolio ready to share with employers, clients and your network.

Certification

- Completing the classes is not the same as completing the program. A certificate of completion is issued only to students who meet both requirements below by the end of the class.

- Submit all three module projects: the Excel project, the SQL project, and the Power BI project. Each must be a complete piece of work, from the business question through to your recommendations.
- Publish a portfolio website that hosts all three projects as documented case studies.
- We hold this standard deliberately. A certificate on its own carries very little weight with employers. A certificate backed by three finished projects and a live portfolio is evidence that you can do the work, and that is what gets you hired. If you fall behind on a project, tell us early so we can help you catch up rather than leaving it until the final week.

Class Schedule and Communication

Class days, times and the meeting link will be shared with you separately and pinned in the class group. Recordings, datasets, practice files and project briefs will be shared in the same place after each class.

If you will miss a class, please make sure you get the recording from the class and the practice work.

We are glad to have you here. Come ready to work, and by the end of this program you will not just know these tools, you will have proof that you can use them.