



Become a Data Analyst with AiQuest Intelligence

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Become a Jr. Data Analyst - Complete Module

- Introduction to Data Analytics
- Data analytics with Excel
- Dive into Power Bi
- SQL (MySQL / PostgreSQL)
- Advanced Analysis with Python
- Data Preparation & Visualization with Tableau
- Bonus Section
- Data Visualization with Google Data Studio
- Python (NumPy, Pandas, Matplotlib)
- Job & Freelancing Guideline with CV & Resume
- 50 Hours+ Live Class

#Course Feedback: <https://youtu.be/3IHXB7ti6I>

#Demo Class: <https://youtu.be/YkE2XWN4Ybs>

Course Module & Class Planning:

Introduction to Data Analytics:

1. Introduction to the World of Business and Data
2. Relevant Terms Explained
3. Data Analyst Compared to Other Data Jobs
4. Data Analyst Job Description

Data Analytics with Excel:

1. Advanced Excel Formulas & Functions

1. Essential Excel Formulas

1. The Formula Library & Auditing Tools
2. DEMO Evaluate Formula
3. Basic Formula Syntax
4. Fixed, Relative, & Mixed References
5. Common Errors & the IFERROR statement
6. Function, CTRL & ALT Shortcuts
7. Creating Custom Data Validation Rules
8. Fixed vs. Volatile Functions
9. Homework -1

2. Conditional Statements & Logical Operators

1. Anatomy of the IF Statement
2. Nested IF Statements
3. AND OR Operators
4. NOT vs.
5. Fixing Errors with IFERROR
6. Common IS Statements
7. HOMEWORK Logical Operators

3. Statistical Functions

1. Basic Statistical Functions
2. SMALLLARGE & RANKPERCENTRANK
3. RAND() & RANDBETWEEN
4. The SUMPRODUCT Function
5. NEW SUMPRODUCT Demo
6. COUNT IF SSUM IFSAVE RAGEIFS
7. PROJECT SHOWCASE Building a Basic Dashboard with COUNTIFS & SUMIFS
8. NEW Combining COUNTIF & SUMPRODUCT
9. HOMEWORK Statistical Functions

4. Lookup Reference Functions

1. Working with Named Arrays
2. ROWROWS & COLUMNCOLUMNS
3. VLOOKUP HLOOKUP
4. Joining Data with VLOOKUP
5. Fixing Errors with IFERROR & VLOOKUP
6. VLOOKUP Reference Array Options
7. NEW Fuzzy Match Lookups
8. The INDEX Function
9. The MATCH Function
10. Using INDEX & MATCH together
11. Combining MATCH with VLOOKUP
12. UPDATE VLOOKUP Correction
13. The OFFSET Function
14. Combining OFFSET with COUNTA to return a variable list
15. PROJECT SHOWCASE Using OFFSET to create a dynamic scrolling chart

5. Text Functions

1. UPPERLOWERPROPER & TRIM
2. The CONCATENATE Function (&)
3. LEFTMIDRIGHT & LEN
4. TEXTVALUE
5. SEARCHFIND
6. Categorizing Data with IF(ISNUMBER(SEARCH))
7. Combining RIGHT, LEN, and SEARCH
8. The SUBSTITUTE Function

6. Date & Time Functions

1. DATEVALUE Your New BFF
2. Date Formatting & Fill Series
3. TODAY () NOW()
4. YEAR MONTH DAY & HOUR MINUTE SECOND
5. The EOMONTH Function 6. The YEARFRAC Function
7. WEEKDAY, WORKDAY & NETWORKDAYS
8. The DATEDIF Function
9. PROJECT SHOWCASE Designing a Sample Budget Pacing Tool
10. HOMEWORK Date & Time Functions

7. Formula-Based Formatting

1. Creating, Editing & Managing Formula-Based Rules
2. Highlighting Every Other Row Using the MOD function
3. Formatting Cells Based on the Value of Another Cell
4. Formatting Cells Using Statistical Functions
5. Formatting Cells Using Text Functions & Logical Operators

8. Array Formulas

1. Rules of Array Functions
2. Pros & Cons of Array Functions
3. Vertical, Horizontal, and 2-Dimensional Array Constants
4. Using Array Constants in Formulas
5. Named Array Constants
6. The Transpose Function
7. Linking Data Between Sheets Array vs. Non-Array Comparison
8. Returning the X Largest Values in a Range
9. Counting Characters Across Cells
10. BONUS MAX IF with Multiple Criteria
11. BONUS Using the Double Unary Operator

9. Project+ Assignment

2. Data Visualization, Excel Charts & Graphs

1. Data Visualization Best Practices

1. Key Visualization Principles & The 10-Second Rule
2. Good, Bad & Ugly Data Visualization
3. 3 Key Questions for Effective Visualization

2. Excel Chart Formatting & Customization

1. Customizing Chart Elements, Layouts & Styles
2. Configuring Chart Formats
3. Changing Chart Types & Adding a Secondary Axis
4. Creating & Applying Custom Chart Templates

3. Analysis-Pivot-Tables

1. Excel Pivot Table

1. Getting to Know Database
2. Setting Expectations

3. Why Pivot Tables
4. Structuring Source Data for Analysis in Excel
5. Creating Your First Pivot Table
6. Navigating the Pivot Table Field List
7. Exploring Pivot Table Analyze & Design Options
8. Selecting, Clearing, Moving & Copying Pivot Tables
9. Refreshing & Updating Pivot Tables
10. PRO TIP Dealing with Growing Source Data
11. Removing & Reviving Data from the Pivot Table Cache
12. PRO TIP How Excel Pivot Tables ACTUALLY Work

2. Formatting Data with Pivot Tables

1. Changing Pivot Table Number Formats
2. PRO TIP Formatting Empty Pivot Table Cells
3. Configuring Pivot Table Layouts & Styles
4. PRO TIP Using Tabular Pivot Tables to Create New Source Data
5. Customizing Pivot Table Headers & Labels
6. Applying Basic Conditional Formats to Pivot Tables
7. PRO TIP Adding Data Bars with Invisible Text
8. Applying Advanced Conditional Formats to Pivot Tables
9. Lists

3. Sorting, Filtering & Grouping Data with Pivot Tables

1. Sorting Data with Pivot Tables
2. PRO TIP: Fixing Incorrect Alphabetical Sorting
3. Filtering Data with Pivot Table Label & Selection Filters
4. PRO TIP: Pivot Table Label Filters with Wildcards
5. Filtering Data with Pivot Table Value Filters
6. Grouping & Segmenting Data with Pivot Tables

7. PRO TIP: Enabling & Disabling Automatic Date Grouping
8. Filtering Data with Pivot Table Slicers & Timelines
9. Breaking Out Pivot Table Report Filter Pages

4. Enriching Data with Pivot Table Calculated Values & Fields

1. Aggregating & Summarizing Data with Pivot Tables
2. PRO TIP: Avoiding the Pivot Table "Count Of" Trap
3. Defining Value Calculations with Pivot Tables
4. Calculating Pivot Table Values: % of Column/Row
5. Calculating Pivot Table Values: % of Parent
6. Calculating Pivot Table Values: Difference from
7. Calculating Pivot Table Values: Running Total
8. Calculating Pivot Table Values: Rank
9. Calculating Pivot Table Values: Index
10. KNOWLEDGE CHECK: Pivot Table Value Calculations
11. Defining Calculated Fields with Pivot Tables
12. Creating Calculated Fields in Pivot Tables vs. Source Data
13. PRO TIP: Pivot Table Calculations Using Count Columns (Part 1)
14. PRO TIP: Pivot Table Calculations Using Count Columns (Part 2)
15. Inserting Pivot Table Calculated Items (USE WITH CAUTION!)
16. Generating Solve Order & List Formulas Reports

5. Visualizing Data with Excel Pivot Charts

1. Intro to Excel Pivot Charts
 2. Pivot Chart Demo: Column Chart
 3. Pivot Chart Demo: Pie & Donut Charts
 4. Pivot Chart Demo: Clustered Bar Chart
5. PRO TIP: Preventing Charts from Resizing with Cells
6. Changing Pivot Chart Types
 7. Pivot Chart Demo: Stacked Area Chart

8. Customizing Pivot Chart Layouts & Styles
9. Moving Pivot Charts to New Excel Worksheets
10. Applying Slicers & Timelines to Multiple Pivot Charts

6. Project+ Assignment

7. Intro to Power Query, Power Pivot & DAX

1. Intro to "Power Excel"

1. Setting Expectations
2. Understanding the "Power Excel" Workflow
3. When to use Power Query & Power Pivot
4. HOMEWORK: Intro to "Power Excel"

2. Power Query

1. Getting to Know Power Query in Excel
2. Power Query Data Loading Options
3. IMPORTANT: Updating Locale Settings
4. Applying Basic Table Transformations with Power Query
5. Power Query Demo: Text Tools
6. Power Query Demo: Number & Value Tools
7. Power Query Demo: Date & Time Tools
8. PRO TIP: Creating a Rolling Calendar with Power Query
9. Power Query Demo: Generating Index & Conditional Columns
10. Power Query Demo: Grouping & Aggregating Records
11. Modifying Excel Workbook Queries
12. Merging Queries with Power Query
13. Appending Queries with Power Query
14. Power Query Demo: Connecting to a Folder of Files
15. Excel Power Query Best Practices

16. HOMEWORK: Connecting & Transforming Data with Power Query in Excel

3. Data Modelling

1. Meet Excel's "Data Model"
2. The Data Model Data vs. Diagram View
3. Principles of Database Normalization
4. Understanding Data Tables vs. Lookup Tables
5. Benefits of Relationships vs. Merged Tables
6. Creating Table Relationships in Excel's Data Model
7. Modifying Data Model Table Relationships
8. Managing Active vs. Inactive Table Relationships
9. Connecting Multiple Data Tables in the Data Model
10. Understanding Filter Flow
11. Hiding Fields from Excel Client Tools
12. Defining Hierarchies in a Data Model
13. Excel Data Model Best Practices
14. HOMEWORK: Building Table Relationships with Excel's Data Model

4. Power Pivot & DAX

1. Creating a "Power" Pivot Table
2. Introducing Data Analysis Expressions (DAX)
3. Understanding DAX Calculated Columns
4. Understanding DAX Measures
5. Creating Implicit DAX Measures
6. Creating Explicit DAX Measures with AutoSum
7. Creating Explicit DAX Measures with Power Pivot
8. Understanding DAX Filter Context
9. Step-by-Step DAX Measure Calculation
10. RECAP: Calculated Columns vs. DAX Measures

11. Excel Power Pivot & DAX Best Practices
12. HOMEWORK: Analyzing Data with Power Pivot & DAX

5. Common DAX Functions

1. Understanding DAX Formula Syntax & Operators
2. Common DAX Function Categories
3. DAX Demo: Basic Math & Stats Functions
4. DAX Demo: COUNT, COUNTA, DISTINCTCOUNT & COUNTROWS
5. HOMEWORK: Math & Stats Functions
6. DAX Demo: Logical Functions (IF/AND/OR)
7. DAX Demo: SWITCH & SWITCH(TRUE)
8. DAX Demo: Common Text Functions
9. HOMEWORK: Logical & Text Functions
10. DAX Demo: CALCULATE
11. DAX Demo: Adding Filter Context with FILTER (Part 1)
12. DAX Demo: Adding Filter Context with FILTER (Part 2)
13. DAX Demo: Removing Filter Context with ALL
14. HOMEWORK: CALCULATE, FILTER & ALL
15. DAX Demo: Joining Data with RELATED
16. DAX Demo: Iterating with SUMX
17. DAX Demo: Iterating with RANKX
18. HOMEWORK: Iterator ("X") Functions
19. DAX Demo: Basic Date & Time Functions
20. HOMEWORK: Time Intelligence
21. DAX Speed & Performance Considerations
22. DAX Best Practice

6. Project+ Assignment

7. Projects

- Project - 1

- Project -2

2. Power Bi

1. Getting started with power Bi

1. Introduction

2. Meet Microsoft Power BI Desktop for Business Intelligence

3. Downloading Power BI & Adjusting Settings

4. Exploring the Power BI Desktop Interface & Workflow

2. Connecting & Shaping Data with Power BI Desktop

1. Types of Data Connectors in Power BI Desktop

2. The Power BI Query Editor (aka Power Query)

3. Demo: Basic Table Transformations in Power BI

4. Power BI Demo Working with Text Tools

5. Power BI Demo: Working with Numerical Values

6. Power BI Demo: Working with Date & Time Tools

7. Creating a Rolling Calendar in Power BI Desktop

8. Power BI Demo: Generating Index & Conditional Columns

9. Power BI Demo: Grouping & Aggregating Records

10. Power BI Demo Pivoting & Un-pivoting Data

11. Merging Queries in Power BI Desktop

12. Appending Queries in Power BI Desktop

13. Appending Files from a Folder

14. Configuring Power BI Data Source Settings

15. Configuring Power BI Query Refresh Settings

16. Additional Data Types & Categories in Power BI

17. Defining Hierarchies in Power BI Desktop
18. Importing Models from Excel to Power BI
19. Power BI Data Connection Best Practices
20. HOMEWORK: Connecting & Shaping Data with Power BI Desktop

3. Creating Table Relationships & Data Models in Power BI

1. What is a "Data Model"?
2. Principles of Database Normalization
3. Understanding Data Tables vs. Lookup Tables
4. Understanding Table Relationships vs. Merged Tables
5. Creating Table Relationships in Power BI Desktop
6. Snowflake Schemas in Power BI
7. Managing & Editing Table Relationships in Power BI Desktop
8. Managing Active vs. Inactive Relationships
9. Understanding Relationship Cardinality
10. Connecting Multiple Data Tables in Power BI Desktop
11. Understanding Filter Flow
12. Two-Way Filters in Power BI Desktop (USE WITH CAUTION!)
13. Hiding Fields from the Power BI Report View
14. New Power BI Desktop "Model" View
15. Power BI Data Model Best Practices
16. HOMEWORK: Creating Table Relationships & Data Models in Power BI

4. Analyzing Data with DAX Calculations in Power BI

1. Meet Data Analysis Expressions (DAX)
2. Intro to DAX Calculated Columns
3. Intro to DAX Measures
4. Calculated Columns vs. DAX Measures
5. Adding Columns & DAX Measures in Power BI Desktop

6. Implicit vs. Explicit DAX Measures
7. Filter Context Examples in Power BI
8. Step-by-Step DAX Measure Calculation
9. Understanding DAX Syntax & Operators
10. Common DAX Function Categories
11. DAX Demo: Basic Date & Time Functions
12. DAX Demo: Conditional & Logical Functions (IF/AND/OR)
13. DAX Demo: Common Text Functions
14. DAX Demo: Joining Data with RELATED
15. DAX Demo: Basic Math & Stats Functions
16. DAX Demo: COUNT Functions (COUNTA, DISTINCTCOUNT, COUNTROWS)
17. IMPORTANT: Order Line Items
18. DAX Demo CALCULATE
19. DAX Demo: CALCULATE & ALL
20. DAX Demo: CALCULATE & FILTER
21. DAX Demo: Iterator Functions (SUMX, RANKX)
22. DAX Demo: Time Intelligence Formulas
23. DAX Best Practices in Power BI Desktop
24. HOMEWORK: Analyzing Data with DAX Calculations in Power BI

5. Visualizing Data with Power BI Reports

1. Exploring the "Report" View in Power BI Desktop
2. Adding Simple Objects to the Power BI Report Canvas
3. Inserting Basic Charts & Visuals in Power BI
4. UPDATE: Conditional Formatting
5. Power BI Report Formatting Options
6. Power BI Report Filtering Options
7. Power BI Demo: Exploring Data with Matrix Visuals
8. Power BI Demo: Filtering with Date Slicers

9. Power BI Demo Showing Key Metrics with Cards & KPI Visuals
10. Power BI Demo: Inserting Text Cards
11. Power BI Demo: Visualizing Geospatial Data with Maps
12. Power BI Demo: Visualizing Data with Treemaps
13. Power BI Demo: Showing Trends with Line & Area Charts
14. Power BI Demo: Adding Trend Lines & Forecasts
15. Editing Power BI Report Interactions
16. Power BI Demo: Adding Drillthrough Filters
17. Using Power BI Report Bookmarks
18. Testing Scenarios with "What-If" Parameters
19. Managing & Viewing Roles in Power BI Desktop
20. PREVIEW: Custom Power BI Visuals (Log-in Required)
21. PREVIEW: Designing for Phone vs. Desktop Report Viewers
22. PREVIEW: Publishing to Power BI Service
23. Power BI Data Visualization Best Practices
24. HOMEWORK: Visualizing Data with Power BI Reports

6. Artificial Intelligence (AI) Visuals

1. Power BI Demo: Q&A Visual
2. Power BI Demo: Key Influencers Visual (Part 1)
3. Power BI Demo: Key Influencers Visual (Part 2)
4. IMPORTANT: Correlation vs. Causation
5. Power BI Demo: Decomposition Tree Visual

7. Project (Ecommerce)

- Sales (Retailer and Consumers)

3. SQL (MySQL / PostgreSQL)

1. Setup Environment
2. Syntax intro
3. Select Query with Aliases
4. Select Distinct
5. Condition wise Select (Where, And, Or, Not, Null Values)
6. Order by (Desc /Asc)
7. Insert into, Update, Delete
8. Mathematical Function (Operators, Min, Max, Count, Avg, Sum.....)
9. Comparison (Like, In, Between, Having)
10. Joins (SQL Inner Join, Left Join, Right Join, Full Join, Self-Join, Union)
11. Group by, Case Function
12. Create Table, Drop Table, Truncate table
13. and many more

4. Python for Data Analysis

1. Setting up the Environment
2. Python Basics
3. NumPy Basics
4. Pandas - Basics
5. pandas Data Frames and Series
1. Matplotlib Basics
7. Working with Text Files and Text Data
8. Data Cleaning and Data Preprocessing
9. Data Visualization with Matplotlib
10. A Dataset Example Project

5. Tableau

1. Getting started with Tableau Basics & Your First Bar chart
 1. Installation
 2. Connecting Tableau to a Data File - CSV File
 3. Navigating Tableau
 4. Creating Calculated Fields
 5. Adding Colors 6. Adding Labels and Formatting
 7. Exporting Your Worksheet 8. Get The Visualization
2. Time series, Aggregation, and Filters
 1. Working with Data Extracts in Tableau
 2. Working with Time Series
 3. Understanding Aggregation, Granularity, and Level of Detail
 4. Creating an Area Chart & Learning About Highlighting
 5. Adding a Filter and Quick Filter
3. Maps, Scatterplots, and Your First Dashboard
 1. Relationships vs Joins
 2. Joining Data in Tableau
 3. Creating a Map, Working with Hierarchies
 4. Creating a Scatter Plot, Applying Filters to Multiple Worksheets
 5. Let's Create our First Dashboard!
 6. Adding an Interactive Action - Filter
 7. Adding an Interactive Action - Highlighting
4. Joining, Blending and Relationships; PLUS Dual Axis Charts
 1. Understanding how LEFT, RIGHT, INNER, and OUTER Joins Work
 2. Joins with Duplicate Values
 3. Joining on Multiple Fields
 4. The Showdown: Joining Data v.s. Blending Data in Tableau
 5. Data Blending in Tableau 6. Dual Axis Chart

7. Creating Calculated Fields in a Blend (Advanced Topic)
8. New challenge and dataset!
9. The Data Model
10. Working with Relationships in Tableau

5. Table Calculations, Advanced Dashboards, Storytelling

1. Downloading the Dataset and Connecting to Tableau
2. Mapping: how to Set Geographical Roles
3. Creating Table Calculations for Gender
4. Creating Bins and Distributions for Age
5. Leveraging the Power of Parameters
6. How to Create a Tree Map Chart

7. Creating a Customer Segmentation Dashboard

8. Advanced Dashboard Interactivity
9. Analyzing the Customer Segmentation Dashboard
10. Creating a Storyline

6. Advanced Data Preparation

1. What Format Your Data Should Be In
2. Data Interpreter
3. Pivot
4. Splitting a Column into Multiple Columns
5. Meta Data Grid
6. Fixing Geographical Data Errors in Tableau

7. What's new

1. Data from PDF Files
2. Connecting to PDF
3. Connecting to Spatial Files

4. Joining to Spatial Files
5. Putting it All Together
6. Step and Jump Line Chart
7. Visualization in Tooltip

8. Project with Tableau

6. Bonus Section: Project with Google Data studio

1. Project: Covid-19 Data analysis Dashboard
 1. Realtime Data Scrapping Via > <https://www.worldometers.info/coronavirus>
 3. Auto sync Data Schedule 15 Minuets
 3. Meaningful and Attractive Dashboard

7. Data Analysis using Python.

1. NumPy
2. Pandas
3. Matplotlib

8. Job and Freelancing Guideline:

1. LinkedIn.com
2. Upwork.com
3. fiverr.com
4. freelancer.com
5. CV & Resume

Important Links:

YouTube: <https://www.youtube.com/StudyMart>

YouTube: <https://www.youtube.com/aiQuest>

Group: <https://www.facebook.com/groups/StudyMart>

Facebook: <https://www.facebook.com/groups/StudyMart>

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