

## **INVITATION TO ATTEND THE POWER QUERY, POWER PIVOT & DAX FOR DATA ANALYSIS, CLEANING, AND AUTOMATION COURSE**

**Dear sir/madam,**

We are pleased to invite you to our Power Query, Power Pivot & DAX for Data Analysis, Cleaning, and Automation course. This hands-on training is designed to provide participants with powerful tools for data transformation, analysis, and automation using Microsoft Excel's advanced features. Power Query, Power Pivot, and DAX (Data Analysis Expressions) are essential for anyone working with large datasets, requiring automation of routine data tasks, or building sophisticated reports.

### **Course Overview:**

In today's data-driven world, professionals need efficient methods for handling large datasets, cleaning data, performing advanced analysis, and creating automated processes. Power Query enables users to easily import, clean, and transform data from multiple sources. Power Pivot is a data modeling tool that helps create complex data models, while DAX allows for powerful calculations and data manipulation. Together, these tools provide a comprehensive solution for data analysis and reporting within Excel and Power BI.

This course offers a practical approach to learning how to automate repetitive tasks, manage large datasets, and perform advanced data analytics with ease.

### **Objectives:**

By the end of this training, participants will be able to:

- Use Power Query to import, clean, and transform data from different
- Build advanced data models using Power Pivot to combine large datasets.
- Write DAX formulas to create custom calculations and advanced analytics.
- Automate routine data tasks, including data updates and report generation.
- Develop interactive dashboards and reports for data visualization.

### **Training Outcomes:**

Participants will acquire:

- Expertise in using Power Query for data extraction, transformation, and loading (ETL).
- Skills to create and manage complex data models in Power Pivot.
- Knowledge of writing and applying DAX functions for advanced calculations.
- The ability to automate and streamline data cleaning, analysis, and reporting processes.
- Experience in creating dynamic, interactive reports and dashboards for business insights.

### **Course Content:**

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The course will cover the following key topics:

### **1. Introduction to Power Query:**

- Overview of Power Query and its role in the data analytics process.
- Connecting to various data sources (Excel, CSV, databases, web, etc.).
- Data transformation: filtering, sorting, merging, appending, and unpivoting data.
- Removing duplicates, fixing data formats, and handling missing data.
- Creating and managing queries to automate data refreshes.

### **2. Advanced Data Cleaning with Power Query:**

- Handling complex data cleaning tasks: splitting columns, replacing values, and managing nulls.
- Grouping and aggregating data for summarized views.
- Combining multiple datasets into a single view.
- Automating recurring data preparation tasks with custom steps.

### **3. Introduction to Power Pivot:**

- Understanding Power Pivot's role in managing large datasets.
- Building data models by creating relationships between tables.
- Using Power Pivot to combine data from multiple sources into a single model.
- Creating calculated columns and measures for advanced data manipulation.

### **4. Data Analysis Expressions (DAX) Fundamentals:**

- Introduction to DAX and its syntax for creating custom calculations.
- Writing basic DAX functions like SUM, AVERAGE, COUNT, and IF.
- Understanding calculated columns vs. measures.
- Performing data aggregations and running time-based analysis (Year-to-Date, Month-to-Date, etc.).

### **5. Advanced DAX for Data Analysis:**

- Advanced DAX functions for data manipulation: CALCULATE, FILTER, ALL.
- Using DAX for financial analysis: creating custom KPIs and performance metrics.
- Performing advanced calculations with time intelligence functions (LASTDATE, SAMEPERIODLASTYEAR, etc.).
- Writing nested DAX formulas for complex calculations.

### **6. Building Interactive Dashboards with Power Pivot and DAX:**

- Creating pivot tables and pivot charts from Power Pivot models.
- Adding slicers, timelines, and other interactive elements.
- Building dynamic dashboards for real-time business insights.
- Exporting dashboards to Power BI for further analysis and visualization.

### **7. Automation with Power Query and DAX:**

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- Scheduling automated data refreshes for reports and dashboards.
  - Using Power Query parameters to dynamically adjust data queries.
  - Automating repetitive tasks and workflows using DAX and Power Query together.
  - Integrating Excel with Power BI for automated reporting.

## 8. Practical Projects:

- Real-world exercises focused on cleaning and transforming large datasets.
- Participants will create and automate complex reports using Power Query, Power Pivot, and DAX.
- Building and automating a full interactive dashboard with real-time data analysis.

## Who Should Attend:

This course is ideal for:

- Data analysts, financial analysts, and business intelligence professionals.
- Managers who need to streamline data analysis and reporting processes.
- Professionals handling large datasets and needing advanced data cleaning and automation skills.
- Anyone interested in learning how to manage, analyze, and automate data processes in Excel and Power BI.

## Fees and Payment Method:

**TZS 300,000/= per person** (Daily Evening session - Physical or Online Session). Payments can be made through bank deposit to the following details:

**A/C NAME: STEP AHEAD FINANCIAL CONS**

**BANK NAME: CRDB BANK**

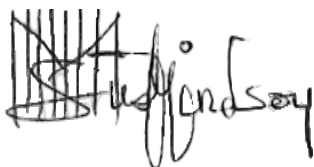
**ACCOUNT NUMBER: 015C448187900**

## Confirmation:

To confirm your attendance or for any inquiries, please call +255 713 388 317 or email us at [info@safco.co.tz](mailto:info@safco.co.tz).

We look forward to your participation in this insightful seminar, which promises to enhance your knowledge and skills in this fields. Your presence will undoubtedly contribute to the success of this event.

Sincerely,



Yustino Nyendeza

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Step Ahead Financial Consultants Limited (SAFCO)

Training Director

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