

2022

ISACA Kenya Chapter

A 2022 Training Programme

[Data Analytics: Analyzing and Visualizing Data with Excel

The Data Analytics training is a hands-on course. In an ‘automated world’ whose devices are connected to the Internet, data is everywhere – true for both structured and unstructured data. To efficiently and effectively analyze the huge amount of data to an organization’s competitive advantage, it is necessary that the ‘players must have the tools, knowledge and skills to be able to adequately analyze the data. The data analysis responsibilities around analyzing data help the business managers make informed decisions to drive the company forward, improve efficiency, increase profits and achieve organizational goals. To do this effectively, **Data** Analysts need to be able to: Understand business direction and objectives.

ISACA Kenya Chapter

Data Analytics: Analyzing and Visualizing Data with Excel

Course Duration: Five (5) Days

A. Preamble – National Industrial Training Authority (NITA) Reimbursement:

ISACA Kenya Chapter is registered as a trainer with National Industrial Training Authority (NITA). The Chapter's registration number is **DIT/TRN/976**. Participants from organizations that are registered levy-contributors should apply to NITA for reimbursement of their fees. Please note that this is applicable to Kenyan citizens only and subject to NITA regulations. Remember, in order to qualify you should apply to NITA for approval prior to the date of the conference / training. Further details can be obtained from NITA website (www.nita.go.ke).

B. Introduction and Overview:

With the explosion in data, coming at us quickly and in many different forms, global executives are looking for fast, actionable insights that will help them grow their business, improve performance and manage risk. While almost all companies see data and analytics (D&A) as a strategic opportunity, many are struggling to use it for compliance and performance monitoring; basically, how to turn data into value through analytics. The companies that determine how to quickly analyze the right data and turn it into value will have a strategic advantage over the competition.

The Training Course will be facilitated by professionals with hands-on experience in Data Analytics. It will incorporate: facilitated discussions, case studies, group discussions, practical demonstration and hands-on exercises, as appropriate.

C. Course Learning Objectives:

Upon completion of the course, participants should be able to answer the following key questions:

1. Where do I start with Data Analytics?
2. What are the low hanging fruits that I can take advantage of in analytics?
3. How can I do basic analytics?
4. How do I display / share results / outputs?
5. What about continuous auditing and monitoring?
6. What's next after the basic analytics?
7. What do I need to appreciate about data quality and master data?

D. Learning Outcome:

At the end of the training course, the participants should be familiar with basic data analytic tools and techniques. In particular, at the end of the course, the participants should be motivated enough to go and explore more about data analytics tools and techniques including acquiring more knowledge and skills to be able to obtain value for data analytics.

E. CPE Hours Available:

At the end of the course, eligible participants will:

- ❖ Earn up to a maximum of 35 CPE (Continuous Professional Education) Hours. This is applicable to those who hold ISACA certification(s) and members of other reciprocating professional bodies; and
- ❖ Receive a participation certificate showing the number of CPE Hours.

Course Prerequisites

Necessary:

- ❖ Basic knowledge on business analytics, use of various basic visualization tools (Graphs, Pies) and functions (Lookup, Macros) within MS Excel
- ❖ A laptop for hands-on exercises with minimum Excel 2013 but Excel 2016 Professional is preferred.

A. Course Outline:

Day 1:

- ❖ Setup the lab environment by installing Office applications.
- ❖ Learn how to perform data analysis in Excel using classic tools, such as pivot tables, pivot charts, and
- ❖ slicers, on data that is already in a worksheet / grid data.
- ❖ Explore an Excel data model, its content, and its structure, using the Power Pivot add-in.
- ❖ Introduction to DAX
- ❖ Create your first DAX expressions for calculated columns and measures.

Day 2:

- ❖ Introduction to Queries, learn about queries (Power Query add-in in Excel 2013 and Excel 2010), and build an Excel data model from a single flat table.
- ❖ Learn how to import multiple tables from a SQL database and create an Excel data model from the imported data.
- ❖ Data Symphony.

Day 3:

- ❖ Create a mash-up between data from text-files and data from SQL database.
- ❖ Update your Data Model and further analyse underlying data
- ❖ Introduction to Measures and how they work
- ❖ Get the details on how to create measures to calculate for each cell, filter context for calculation, and explore several advanced DAX functions.

Day 4:

- ❖ Use advanced text query to import data from a formatted Excel report. Perform queries beyond the standard user interface.
- ❖ Introduction to the CUBE.
- ❖ Use the cube functions to perform year-over-year comparisons.
- ❖ Explore ways to create stunning visualizations in Excel.
- ❖ Create timelines, hierarchies, and slicers to enhance your visualizations.

Day 5:

- ❖ Mini-project
- ❖ Wrap up

F. Expected Effort

- ❖ Actively participate in sessions and group activities
- ❖ Feel free to bring your own anonymized sample data that you have been wrangling with
for you to begin applying the learning to solving these challenges.

- ❖ Completing the quizzes.
- ❖ Completing the lab exercises

G. Attendance: Who should attend? The training course is designed for the following categories of professionals:

- ❖ Financial Auditors (Internal and External Auditors)
- ❖ Application Auditors
- ❖ IT Auditors (esp. those keen on controls over ERP processes)
- ❖ Risk Champions
- ❖ Database Administrators
- ❖ Systems Administrators
- ❖ IT Audit Consultants
- ❖ IT Professionals / Consultants
- ❖ Compliance Personnel
- ❖ 'Marketing Intelligence' Enthusiasts / Personnel

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Thank You.

***** *End of the Course Outline* *****