

Power BI DAX («PBIDAX»)

With this advanced training, you'll master the DAX language and take your Power BI and PowerPivot data analysis skills to the next level.

Duration: 5 days

Price: 3'400.–

Course documents: Digital Digicomp original courseware

Content

- Introduction
- Overview
 - What is DAX?
 - Why is DAX so difficult to learn?
 - Number of DAX functions and families
 - Presentation of the DAX current limits
 - DAX in models (column) vs. DAX in measures
 - Implicit vs. explicit DAX
 - Understanding the different DAX families (DDL, DQL, DAL, DVL, DSL ...)
- DAX Query Language (DQL)
 - EVALUATE query
 - ALL query
 - ALLNOBLANKROW query
 - SELECTCOLUMNS query
 - VALUES query
 - DISTINCT query
 - SELECTCOLUMNS + DISTINCT query with statistics
 - CALCULATETABLE query
 - FILTER query
 - CALCULATETABLE vs. FILTER and the context transition
 - SAMPLE query
 - SUMMARIZE query
 - SUMMARIZE query with CALCULATETABLE, KEEPFILTERS and TREATAS
 - SUMMARIZE query with multiple tables
 - GROUPBY and CURRENTGROUP queries
 - SUMMARIZECOLUMN query
 - SUMMARIZECOLUMNS query with IGNORE
 - TOPN query
 - RANK.EQ query
 - ROW query
 - SELECTCOLUMNS query with RELATED
 - GENERATE query with RELATEDTABLE
 - GENERATEALL query with RELATEDTABLE
 - NATURALINNERJOIN query
 - NATURALLEFTOUTERJOIN query
 - ADDCOLUMNS query
 - ROLLUP query
 - ROLLUPGROUP query
 - ISSUBTOTAL query
 - ISAFter and ISORNAFTER queries
 - ROLLUPADDISSUBTOTALDAX query
- DAX Definition Language (DDL)

- CALENDAR command
- CALENDARAUTO command
- UNION command
- ROW command
- GENERATESERIES command
- DATATABLE command
- INTERSECTION command
- CROSSJOIN command
- DAX Analytics Language (DAL)
 - Creating measure tables
 - Using Quick Measures
 - Main logical functions
 - IF, AND, OR
 - SWITCH
 - ISBLANK, ISEMPY
 - Main filter functions
 - RELATED
 - CALCULATE
 - FILTER
 - KEEPFILTER
 - ALLEXCEPT
 - ALL
 - REMOVEFILTER
 - ALLSELECTED
 - EXCEPT
 - ISAFTEER, ISONORAFTER
 - DISTINCT
 - HASONEVALUE
 - ISFILTERED
 - HASONEFILTER
 - USERRELATIONSHIP
 - SELECTEDVALUE
 - INTERSECT
 - TREATAS
 - ISINSCOPE
 - Main statistical functions
 - SUM
 - SUMX (with or without RELATED, FILTER)
 - AVERAGEX (with or without VALUE)
 - AVERAGE (with or without HASONEVALUE)
 - MIN, MIN, MAX, MAXX
 - COUNT (with or without CALCULATE and USERRELATIONSHIP)
 - COUNTX, COUNTA, COUNTAX
 - COUNTROWS
 - COUNTBLANK
 - DIVIDE
 - DISTINCTCOUNT
 - PERCENTILEX.INC, PERCENTILE.INC
 - TOPN
 - RANKX, RANK.EQ
 - GEOMEANX
 - Main date and time functions
 - DATE
 - YEAR
 - MONTH (with or without MOD)
 - FORMAT

- DAY (with or without INT)
 - WEEKDAY
 - WEEKNUM
 - EOMONTH
 - HOUR, MINUTE
 - YEARFRAC
 - NETWORKDAYS
- Main time intelligence functions
 - PREVIOUSDAY and NEXTDAY
 - PREVIOUSMONTH and NEXTMONTH
 - PREVIOUSQUARTER and NEXTQUARTER
 - PREVIOUSYEAR and NEXTYEAR
 - SAMEPERIODLASTYEAR
 - PARALLELPERIOD
 - DATEADD
 - DATESMTD and DATESYTD
 - FIRSTDATE and LASTDATE
 - ENDOFMONTH and CLOSINGBALANCEMONTH
 - TOTALX (TOTALMTD, TOTALQTD, TOTALYTD)
 - DATESBETWEEN
 - STARTOFX and ENDOFX
 - DATESINPERIOD and ENDOFMONTH
 - PREVIOUSX and NEXTX
 - EARLIER
- Main text functions
 - FORMAT
 - REPT
 - VALUE
 - UNICHAR
 - FIND
 - SUBSTITUTE
 - UPER
 - SEARCH
 - CONCATENATE (with or without COMBINEVALUES)
 - CONCATENATEX
- Main parent and child functions
 - LOOKUPVALUE
 - PATH
 - PATHITEM
 - REVERSEPATHITEM
- Main financial functions
 - XIRR, XNPV
- DAX Visual Language (DVL)
 - Generate visuals with DAX and SVG
- DAX Security Language (DSL)
 - USERNAME()
 - USERPRINCIPALNAME()
 - USERCULTURE()
 - Usage of &&, ||
 - Usage of IF, MAXX
 - Usage of IF, MAXX, FILTER and PATH
- Overview of a few external tools
 - DAX Studio
 - Bravo
 - Tabular Editor
- Conclusion

Key Learnings

- Deepen your knowledge of PowerPivot and Power BI with DAX functions:
 - DAX Definition Language (DDL)
 - DAX Query Language (DQL)
 - DAX Analytics Language (DAL)
 - DAX Visual Language (DVL)
 - DAX Security Language (DSL)

Methodology & didactics

This course is based on practical exercises.

Target audience

This course is intended for data analysts who wish to exploit the possibilities of the DAX language to create in-depth data analysis with PowerPivot or Power BI Desktop.

Requirements

In order to fully benefit from this course, participants must have a good knowledge of PowerPivot and/or Power BI, taken the following training courses beforehand or made sure they have equivalent knowledge:

- [Power Query and Power Pivot for data analysis in Excel \(«MEPQPP»\)](#)

Additional information

This course can be of use in the context of a preparation for the PL300 "[Microsoft Certified: Power BI Data Analyst Associate](#)" certification exam.

Any questions?

We are happy to advise you on +41 44 447 21 21 or info@digicomp.ch. You can find detailed information about dates on www.digicomp.ch/courses-microsoft-technology/microsoft-power-platform/power-platform-workshops/course-power-bi-dax