Course Description

**Power BI**

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| Learning Objectives | Connecting to different data sources.  Preparing, transforming and modeling data  Optimizing data models  Designing calculations and measurements with the DAX language  Building dynamic charts and dashboards  Analyzing data  Publishing and sharing your results with Power Bi Service and Power BI Mobile |
| Teaching methods | Active pedagogy including presentations, exercises and practical applications |
| Concerned public | Analyst, consultant, Developer, Decision-maker, management controller, study manager, etc.. |
| Prerequisites | None |
| Duration | 3 days |

**Programme**

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| **Introduction**  Definition of Business Intelligence  Presentation of the Microsoft BI offer.  The stages of creating a Business Intelligence model  Star model vs Snowflake model  **Introducing Power BI Desktop**  Introducing Power BI Desktop  Explanation of the different tools that make up Power BI  Licensing policy  Role management  **Connect to different data sources**  Import vs DirectQuery  Files: Excel, CSV, Text, XML  Database: SQL Server, MySQL, Access, Oracle  Online service, Web, Microsoft Exchange  **Transform the Data**  Introducing Query Editor  Presentation of the M language  Formatting and processing of data  Aggregating data  Merging and combining queries  Loading data  Optimization  **Model the Data**  Defining relationships between tables  Managing cardinalities  Defining the direction of the filters  Active relationship vs inactive relationship  Adding calculated columns to the model  Definition of measures  Creation of hierarchies **Create Calculations with DAX** Presentation of the DAX language  Main functions related to data types  Functions for manipulating text strings  Logical and conditional functions  Data filter functions  Navigation and aggregation functions  Creating a date table with DAX and using time intelligence functions **Visualize the Data** Creation of reports, pages and dashboards.  Display of data : Table, Matrix, Map  Creating charts : curves, histograms, Treemap  Inserting visual elements to the model: images, shapes, text boxes  Geographic data and spatial representations  Implementation of segments, KPIs, Gauge.  Importing new visuals  Formatting and formatting.  Adding tooltips  Definition of interactions between visuals  Definition of the different filtering levels  Managing the layout for smartphone.  **Power BI Service**  Publishing the Power BI project report  Connecting with Power BI Service  Understanding the workspace and the different menus  Sharing reports with other users  Creating dashboards  Importing data from Power BI Desktop  **Power BI Mobile**  Existing mobile applications  Viewing reports on mobile  Configuring mobile application alerts |