

# Applied Data Science.

Get your teams to understand the basics and to practice data science in their daily work routine.

## Context

Businesses have been accumulating terabytes of all kinds of data for several years. In the vast majority of companies, only a few individuals actually know and apply the principles of data science.

In order to understand your market, your customers' behavior or the real impact of your processes, your employees must be able to identify, collect, process, analyze and interpret your data.

**This training, both theoretical and practical, aims to demystify the concepts of data science and, through practice, to give your employee all the knowledge needed to create a more data-driven organization.**

## Duration

5 days

## Tracks

This training offers 2 tracks which teaches the same concepts, but by using different tools and techniques:

1. « **Dataviz** » **Track** solve problems with the data centralization and company performance visualization using SQL databases and PowerBI.
2. « **Python** » **Track** solve problems using Python and data visualization with Plotly.

## Targeted Audience

This hands-on training is aimed at all employees seeking to understand and apply data science in their daily work.

## Objectives

- Demystify the fundamental concepts of data science
- Learn the basics of databases (SQL) and data manipulation
- Learn statistical methods and data interpretation

- Learn the art of visualization through storytelling
- Find out how to model data to solve a problem
- Develop your team's skills through hands-on workshops

## Program

Each day is organized to cover theory in the morning and apply the learning in workshops in the afternoon.

Workshops are revolving around the resolution of a problem specific to the participant business which will be determined during the personalization phase of the training course.

## Syllabus

### Icebreaker

Introducing participants, the reasons for training and group discussion set spree on their current challenges with data science.

### Fundamentals [Day 1]

Understand the fundamental concepts of data science and how to apply them in a business context.

- Data science fundamentals
- Data science and business intelligence
- Data science at the heart of innovation
- Problem solving process
- Data science business maturity
- Case studies
- **Workshop:** problem definition, identification and prioritization data science use cases specific to your business

### Databases and data manipulation [Day 2]

Learn how to jump from standard tools like Excel to advanced database tools like SQL in order to manipulate data like an expert.

- From Excel to SQL
- Check data integrity
- Understand SQL and how to use it
- Different functions and type of data in SQL
- Advanced data manipulation
- **Workshop:** build an SQL request for your project

### Statistical methods and data interpretation [Day 3]

Definition of the most useful statistical methods and best practices to turn data into actionable insights.

- Introduction to statistical methods
- Compare groups and A/B tests
- Descriptive and predictive analysis
- Interpreting data for decision-making
- **Workshop:** use statistical techniques to better understand the data used to solve your problem.

### **The art of visualization and storytelling [Day 4]**

How to properly define your problem and offer an awesome user experience using storytelling techniques and powerful visualization tools.

- Why visualize your data in a dashboard?
- Choosing the right widgets for visualization
- The end of the pie chart
- Ethical dimension of visualization
- Best practices to tell the right story with your dashboards (storytelling)
- How to use the right visualization tools
- **Workshop:** set up a dashboard (SQL / PowerBI) or advanced visualization (Python / Plotly)

### **Data modeling**

Learn to use simple techniques to model your data using existing tools or the Python programming language.

- Understand the basic concepts of machine learning
- Define how to make predictions and predictions
- How to plan to solve a machine learning issue
- **Workshop:** plan a project and the AI system architecture to be able to make a prediction

### **Price**

7,000\$ per participant