# AIBT102 - Data integration and Exploration

From the Advanced Master AIBT

(Artificial Intelligence & Business Transformation)

## Key elements

Period: **November**

Estimated duration: **35 hours, 4 days**

For whom: **recent graduates, jobseekers and experienced employees**

Location: I**SAE-SUPAERO, Toulouse**

Language: **English**

## Highlights

- Data warehousing and visualisation

- Data quality management

- Practical courses

Data is ubiquitous in modern economy. From flight test data to financial reports, from web-based content to scientific computation results, sources of data are heterogeneous, flow at different speeds and vary in volume. The first step in an efficient data-driven business model is the definition of a strong data integration framework, able to cover all the useful data sources, to manage them over time, to report on data quality and to efficiently explore and visualize their contents.

## Learning objectives

After completing this course, participants will be able to:

- Explain the key components of ETL-based data warehousing;

- Set up indicators on data quality and management;

- Perform a simple data visualization task.

## Prerequisites

- General knowledge on computer science.
- Work experience in a professional environment.

## Information and registration

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## Course Content

Data Warehousing:

- History and recent evolutions
- Extract-Transform-Load process
- Architecture
- Key functions
- Layers

Data quality:

- Indicators
- improvement
- assurance
- control

Data visualisation:

- visual perception
- effective graphical display
- tools

## Teaching methods

| Teaching methods | Yes |
|---|---|
| Lectures / tutorial | X |
| Collaborative learning | |
| Flipped classroom | |
| Blended learning (online and face to face) | |
| Learning by doing | X |
| Project-based | |
| Simulation | |
| Case study | X |

## Assessment

- Case study (50 %)
- Hands-on evaluation on a computer (50 %)