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Sign up

Pandas and Jupyter Notebook training

3 days (21 hours)

Presentation

[Pandas](#) is a Python library for rapid data import. It also makes data analysis quick and easy, and provides a high-level abstraction of matrix manipulation. Pandas can handle any type of data, whether textual, temporal or numerical. No code is required, allowing you to concentrate on functionality. [Jupyter Notebook](#) is a visual reporting tool with many advantages. It lets you create and share documents containing live code, equations, visualizations and narrative text. Uses include: data cleansing and transformation, numerical simulation, statistical modeling, data visualization, machine learning and more. In this course, we'll look at how to import and exploit data with Pandas on Jupyter. We will then learn how to manipulate this data. By the end of the course, you'll be able to produce a full report. As with all our training courses, this one will introduce you to the latest stable version and its new features ([Pandas 1.3](#) and [Jupyter 6.4](#) at the time of writing).

Objectives

- Increase your productivity
- Accelerate your analyses
- Add value to your data simply
- Produce effective, high-impact reports

Target audience

Developers, Architects, Data engineers

Prerequisites

Basic knowledge of Python

Pandas and Jupyter Notebook training program

Day 1: Discovering Pandas

- What are Pandas?
- Pandas' outbuildings
- Dataframes and Series
- Import and export data
- Select data
- Dataframe description
- Revisions and Exercises

Day 2: Discovering Jupyter Notebook

- What is Jupyter Notebook?
- The importance of knowing how to present your work
- Launch a Jupyter session
- Document your code
- Images, video and widgets
- Graphics with Matplotlib
- Presenting Pandas Dataframes in Jupyter
- Revisions and Exercises
- First report with Pandas, Jupiter and Matplotlib

Day 3: Further afield with Pandas

- Clean up your data
- Handling time series
- Merge, Concat, Join and Append
- Groupby and Aggregate
- Map, Apply and ApplyMap
- Revisions and Exercises

Complementary module (over 2 days) :

Always further with Pandas

- Stack, Unstack, Melt and Pivot
- Working with categories
- Useful functions
- Review and exercises

Carrying out a complete study

Companies concerned

This course is aimed at both individuals and companies, large or small,

wishing to train its teams in a new advanced IT technology, or to acquire specific business knowledge or modern methods.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.