AMBIENT-IT

+33 (0)1 48 10 09 46
formation@ambient-it.net
140 Avenue Jean Lolive 93500 Pantin - France

Updated 07/27/2023

Sign up

Apache Flink training: The Big Data platform

2 days (14 hours)

Presentation

Apache Flink is an open-source Big Data framework that simplifies the processing of high-volume data streams.

Flink essentially involves the analysis of stored data. The platform works within the framework of Big Data applications for distributed data processing.

In this training course, your team will learn how to use Apache Flink to handle real flows such as batch processing on datasets. They will also understand how each Apache Flink component works.

Learning Apache Flink will enable you to easily solve real-time business cases and the different concepts.

Our training will be based on the latest version of the software, Apache Flink 1.16.

Objectives

- Understanding the Apache Flink ecosystem
- Understanding Flink's architecture and data structure
- Exploiting data with Table API

Target audience

- Data Analyst
- Developers
- Big Data Architects

Prerequisites

Knowledge of Java.

Apache Flink training program

INTRODUCTION APACHE FLINK

- What is Apache Flink?
- The Flink ecosystem
- History of the framework
- Fields of application
- Architectural presentation
- Unlimited and delimited flows
- Different types of status

FUNDAMENTAL CONCEPTS

- Understanding data flow management
- What is a state function?
- Flink ML
- Flink Table Store
- What is the Kubernetes Flink operator?
- DataSink
- Connectors
  - HDFS
  - S3
  - Avro
  - MongoDB

USE CASES

- The different applications
  - Event-driven application
  - Data analysis application
  - Data pipeline application

PUTTING IT INTO PRACTICE

- Flink ML
  - Classification
  - Grouping
  - Evaluation
  - Functionality engineering
  - Regression

- API Table
  - Selection
  - Filter
  - Joint
  - OrderBy
- Flink Graph
  - What is a graph?
  - The different algorithms
  - [PRACTICE] Creating graphs

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer 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.