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Apache NiFi training: Automate your data flows

2 days (14 hours)

Presentation

Our Apache NiFi training course will enable you to process and distribute data easily and efficiently.

In fact, close to an ETL, Apache NiFi is a tool that has proven its effectiveness, over and above the fact that it is highly configurable so that users benefit from guaranteed delivery, low latency, high throughput, dynamic prioritization and functionality for modifying flows at runtime.

Naturally component-oriented, NiFi's paradigm is flow-based programming (FBP). Messages of up to several gigabytes can be processed automatically in your "data factory". NiFi's highly productive, intuitive interface lets you create data flows with a simple drag-and-drop operation, without having to write a single line of code.

What's more, the program is open-source and free of charge. Documentations referring to Apache NiFi are numerous. Software users benefit from customized reporting, a seamless interface for data processing with DAG technology, and rapid prototyping.

NiFi also supports secure protocols such as SSL, HTTPS and SSH. Our Apache NiFi training course will be based on the latest version of the software, [Apache NiFi 1.26](#).

Objectives

- Understanding the architecture and fundamentals of data processing with Apache NiFi
- Mastering data flow management
- Install and configure Apache NiFi
- Integrating Kafka with NiFi

Target audience

Developers, Big Data professionals, Architects, Systems administrators, DevOps

Prerequisites

- Basic knowledge of Unix systems
- Basic knowledge of Java

Apache NiFi training program

Day 1 - Introduction

Big Data ecosystem overview

- Fields of application
- NoSql
- Apache Kafka
- Where and why use REX?

Fundamental concepts

- Introducing Apache NiFi
- Understanding data flow processing
- Apache NiFi architecture
- Processors and flow files
- Connectors and processors
- Understanding the UI
- Processor classes
- Program installation and configuration
- Parallelism management in a NiFi cluster

Big Data Architecture

- Apache NiFi as a data producer
- Apache NiFi as a data consumer
- Why integrate NiFi with Kafka?
- Integrating NiFi Kafka

Day 2 - Mastering processors Using

processors

- FlowFile generator
- Reading and processing data files
- Using SplitRecord
- Using UpdateRecordProcessor
- Handling file duplication
- JSON-related processors
 - InvokeHTTP
 - EvaluateJsonPath
 - FlattenJson
 - SplitJson

Advanced use

- Handling duplicates
- Using SQL Query in NiFi
- NiFi HandleHttpRequest and HandleHttpResponse processors
- NiFi templates
- NiFi monitoring
- Data sourcing and event search
- Relationship with processors
- Debugging and error handling
- Using MiniFi to manage IOTs

NiFi components

- NiFi Registry
- Versioning flow in NiFi
- Registry diagram
- Simplified integration with data schemas

Further information

Companies concerned

This training 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.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

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.