

TP N° 7 : Apache Kafka



Kafka

What is a messaging system?

A messaging system is responsible for transferring data from one application to another, so that applications can focus on the data without worrying about how to share or collect it. Distributed messaging is based on the principle of reliable message queuing. Messages are stored asynchronously in queues between client applications and the messaging system.

Two types of messaging patterns exist: point-to-point systems and publish-subscribe systems.

- 1. Installation Apache Kafka sous Windows**
- 2. Création d'un topic**
- 3. Exemple Producteur Consommateur**
- 4. Configuration de plusieurs brokers**
- 5. Projet IoT + Kafka**

Objectif : Utiliser des capteurs IoT (simulés ou réels) qui envoient des données via Kafka.

Cas d'usage : Système de suivi de machines sur un chantier, détection de panne, etc.