What is the Difference Between Hadoop and Spark?

The main difference between Hadoop and Spark is that the Hadoop is an Apache open-source framework that allows distributed processing of large data sets across clusters of computers using simple programming models while Spark is a cluster computing framework designed for fast Hadoop computation.

Difference Between Hadoop and Spark according to:

o Definition

Hadoop is an Apache open-source framework that allows distributed processing of large data sets across clusters of computers using simple programming models. Apache Spark is an open-source distributed general-purpose cluster-computing framework. Thus, this explains the main difference between Hadoop and Spark.

o Speed

Speed is another difference between Hadoop and Spark. Spark performs faster than Hadoop.

o **Fault Tolerance**

Hadoop uses replication of data in multiple copies to achieve fault tolerance. Spark uses Resilient Distributed Dataset (RDD) for fault tolerance.

o **API**

Another difference between Hadoop and Spark is that the Spark provides a variety of APIs that can be used with multiple data sources and languages. Also, they are more extensible than Hadoop APIs.

o **Usage**

Hadoop is used to manage data storing and processing of big data applications running in clustered systems. Spark is used to boost the Hadoop computational process. Hence, this is also an important difference between Hadoop and Spark.

Conclusion

Hadoop is a software to store and handle big data effectively and efficiently. But, Spark, on the other hand, is an Apache framework to increase the computing speed of Hadoop. It can handle both batch and real-time analytics and data processing workloads.

Spark is an Apache framework to increase the computing speed of Hadoop. It helps Hadoop to reduce the waiting time between queries and to minimize the waiting time to run the program.

Reference:

1. "Hadoop – Introduction to Hadoop." Www.tutorialspoint.com, Tutorials Point, Available here.
2. "Apache Spark Introduction." Www.tutorialspoint.com, Tutorials Point, Available here.

Name: Aya Mahmoud Mohamed Mahmoud Metwally