

### Basics

What is Kafka Used For?

1. Building real-time **streaming pipelines** that move data between different applications.
2. Building real-time **streaming applications** that are capable of processing streams of data.
3. Building a **fault tolerant storage system** that stores streams of records.

Topic

A Kafka topic is a category or feed name under which messages are stored. A Kafka producer publishes messages to a topic, which may be subscribed by zero or more consumers.

Partitions

A topic partition is a structured commit log to which the records are continually appended. For each topic, Kafka keeps a minimum of one partition. Each record in the partition is assigned a sequential id called as the offset, which uniquely identifies each of them within the partition. The partitions enable the topic to scale beyond a single server and act as the unit of parallelism.

### Benefits of Kafka

Reliability

Kafka's distributed design, topic partitioning, and data replication over servers make it reliable.

Scalability

Kafka system exists as a cluster of brokers. The number of brokers can grow over time when more data comes. Any failure of an individual broker in a cluster is handled by the system providing uninterrupted service.

Durability

Disk-based data retention makes Kafka durable. Messages remain on the disk based on the retention rule configured on a per-topic basis. Even if a consumer falls back due to any reason, the data continue to reside in the Broker till the retention period and is not lost.

High-Performance

All the above features make Kafka a High-Performance messaging system.

C

By Deepak (deep.inside)  
[cheatography.com/deep-inside/](https://cheatography.com/deep-inside/)

Not published yet.  
Last updated 22nd February, 2023.  
Page 1 of 1.

Sponsored by **CrosswordCheats.com**  
Learn to solve cryptic crosswords!  
<http://crosswordcheats.com>