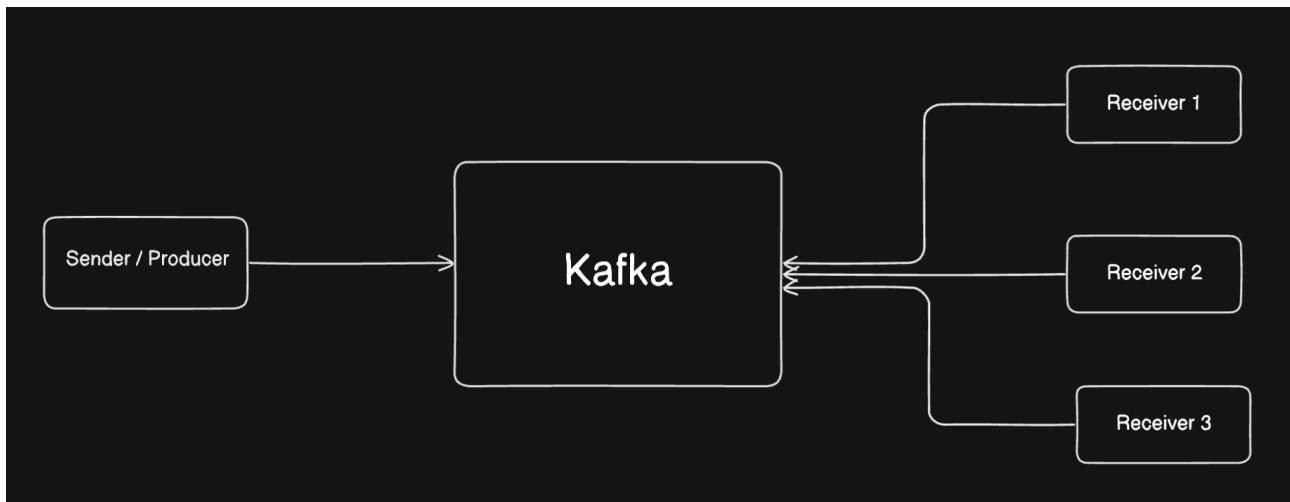


**Kafka** : Kafka is like a communication system that helps different parts of a System to exchange data by Publishing & Subscribing to topics.

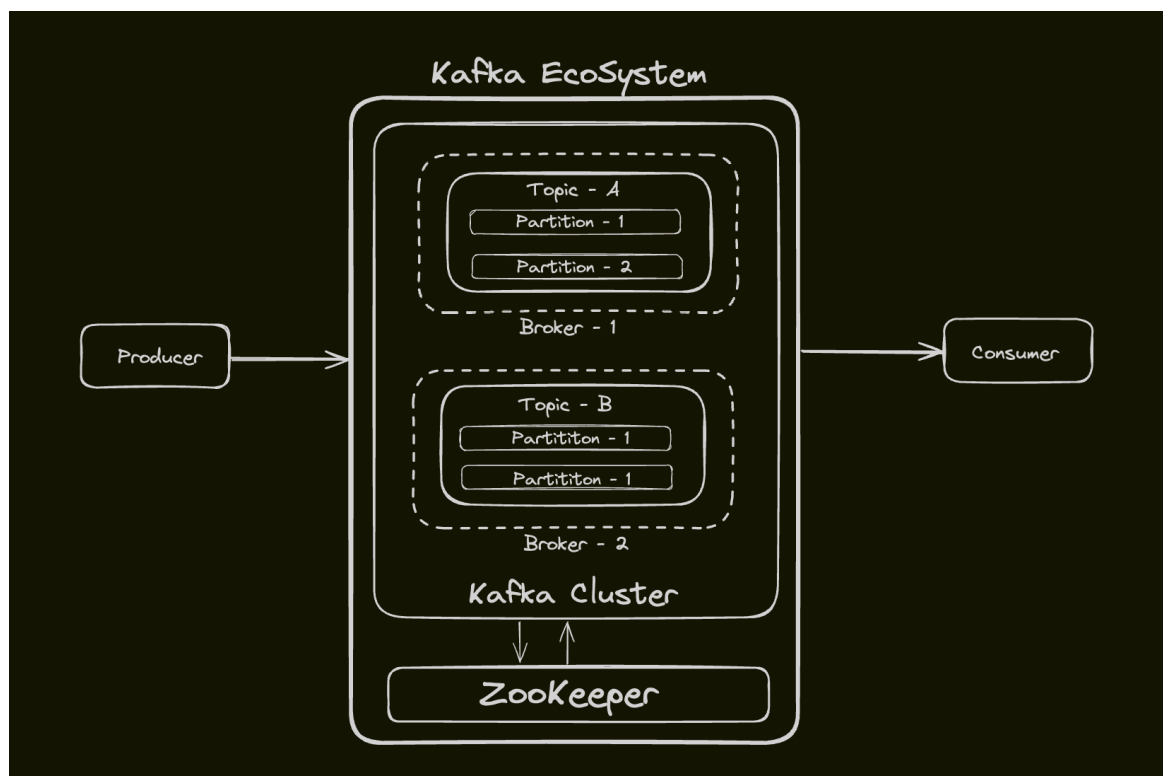


**Example** : Zomato live Food Tracking, Ola/Uber Driver Location update, Notification System, etc.

### Why Do we use Kafka ?

- High Throughput
- Fault Tolerance [ Replication ]
- Durable
- Scalable

### Architecture :



**Kafka Architecture**

**Installation :**

- Download Kafka Zip File from **Official Website**.
- Extract Files
- Start ZooKeeper
- Start Kafka Server

**Kafka Use Cases :**

- **Metrics** : Kafka can be used to monitoring data.Distributed service can push different oprational metrics to kafkaesque servers.These metrics can be pulled from kafka to produce aggregated stats.
- **Log Aggregation** : Kafka can be used to collect logs from different sources and can make them available in a standard format to multiple consumers.
- **Stream Processing** : Kafka is quite useful for places where the incoming data undergoes processing at multiple stages. For example the raw data consumed from topic is transformed, enriched o aggregated and pushed to a new topic for further consumption.
- **Comit Logs** : Kafka can be used as an external logs for any distributed system. Distributed system can commit their transaction to kafka to keep track on what is happening. This transaction data can be used for replication between nodes and also becomes in disaster recovery, for example, to help failed nodes to recover their state.
- **Website Activity Tracking**