KAFKA INSTALLATION IN WINDOW

1) **Download Kafka**

    From Apache Kafka

    Extract .tgz file into c direction

2) **Install Java**

     From oracle

     Setup java home environment variable

3) **Start ZooKeeper and Kafka Using Command Prompt**

    Start Zookeeper:

    (.\bin\windows\zookeeperserverstart.bat.\config\zookeeper.properties)

    Open New Command Prompt And Start Kafka Broker:

    (.\bin\windows\kafka-topics.bat --create --topic test-topic --bootstrap-server localhost:9092 --partitions 1 --replication-factor 1)

4) **Install Kafka Js In Node Js Terminal**

    (npm install kafkajs)

5) **Create Producer.js**

```
const { Kafka } = require("kafkajs");

const kafka = new Kafka({
  clientId: "my-producer",
  brokers: ["localhost:9092"], // Kafka broker address
});
```

```javascript
    const producer = kafka.producer();

  const produceMessage = async () => {
    await producer.connect();
    try {
      await producer.send({
      topic: "test-topic",
      messages: [{ value: "Hello from Node.js producer!" }],
      });
      console.log("Message sent successfully!");
      } catch (error) {
     console.error("Error in sending message:", error);
     } finally {
      await producer.disconnect();
     }
    };

   produceMessage();
```

6) Create Consumer.js

```javascript
   const { Kafka } = require("kafkajs");

   const kafka = new Kafka({
     clientId: "my-consumer",
     brokers: ["localhost:9092"], // Kafka broker address
   });

   const consumer = kafka.consumer({ groupId: "test-group" });

   const consumeMessages = async () => {
   await consumer.connect();
```

```
await consumer.subscribe({ topic: "test-topic", fromBeginning: true });

await consumer.run({
  eachMessage: async ({ topic, partition, message }) => {
    console.log(`Received message: ${message.value.toString()}`);
  },
});
};

consumeMessages();
```

7) Run Producer.js

        node producer.js

8) Run Consumer.js

        node consumer.js