**Group A**

**Lab 4B**

**Apache Kafka**

**Participants:**

**1. Aadarsha chapagain**

**2.Jyoti shukla**

**3.Rishi Phaneendra Varma**

**4.Priti Bhale**

**5.Sreya Treesa Johny**

**6.Piyush Bhatia**

**Kafka Running With Producer and Consumer:**

A screenshot of a computer screen

Description automatically generated with medium confidence

**Console consumer /App producer**

**Code:**

**Initiator.java**

**package** org.aadarsha.kafkasample;

**public** **class** Initiator {

**public** **static** **void** main(String[] args) **throws** Exception {

Thread producer = **new** Thread(**new** KafkaSampleProducer());

producer.start();

producer.join();

}

}

**KafkaSampleProducer.java**

**package** org.aadarsha.kafkasample;

**import** java.util.Properties;

**import** org.apache.kafka.clients.producer.KafkaProducer;

**import** org.apache.kafka.clients.producer.Producer;

**import** org.apache.kafka.clients.producer.ProducerRecord;

**public** **class** KafkaSampleProducer **implements** Runnable {

**private** **static** **final** String ***TOPIC\_NAME*** = "spark\_topic";

**private** **static** **long** *ID*;

**public** **void** run() {

Properties kafkaConfig = getConfig();

Producer<String, String> producer = **new** KafkaProducer<String, String>(kafkaConfig);

**try** {

**while** (**true**) {

Thread.*sleep*(1 \* 1000);

String messageKey = "Key" + *ID*;

String messageValue = *generateMessageContent*();

producer.send(**new** ProducerRecord<String, String>(

***TOPIC\_NAME***, messageKey, messageValue));

System.***out***.println("Producer - " + messageKey + ": Message sent successfully");

}

} **catch** (Exception e) {

e.printStackTrace();

} **finally** {

producer.close();

}

}

**private** Properties getConfig() {

Properties config = **new** Properties();

config.put("bootstrap.servers", "localhost:9092");

config.put("key.serializer", "org.apache.kafka.common.serialization.StringSerializer");

config.put("value.serializer", "org.apache.kafka.common.serialization.StringSerializer");

**return** config;

}

**private** **static** String generateMessageContent() {

String name = "John" + *ID*++;

**return** "{\"name\":\"" + name + "\", \"age\":31, \"city\":\"New York\"}";

}

}

**A screenshot of a computer

Description automatically generated with medium confidence**

**Console producer /App consumer**

**Code:**

**Initiator.java**

**package** org.aadarsha.kafkasample;

**public** **class** Initiator {

**public** **static** **void** main(String[] args) **throws** Exception {

Thread consumer = **new** Thread(**new** KafkaSampleConsumer("kafka consumer"));

consumer.start();

consumer.join();

}

}

A screenshot of a computer screen

Description automatically generated with medium confidenceA screenshot of a computer

Description automatically generated

**App producer /App consumer**

**Code:**

**Initiator.java**

**package** org.aadarsha.kafkasample;

**public** **class** Initiator {

**public** **static** **void** main(String[] args) **throws** Exception {

Thread producer = **new** Thread(**new** KafkaSampleProducer());

Thread consumer = **new** Thread(**new** KafkaSampleConsumer("kafka consumer"));

producer.start();

consumer.start();

producer.join();

consumer.join();

}

}

A screenshot of a computer

Description automatically generated