

Group A

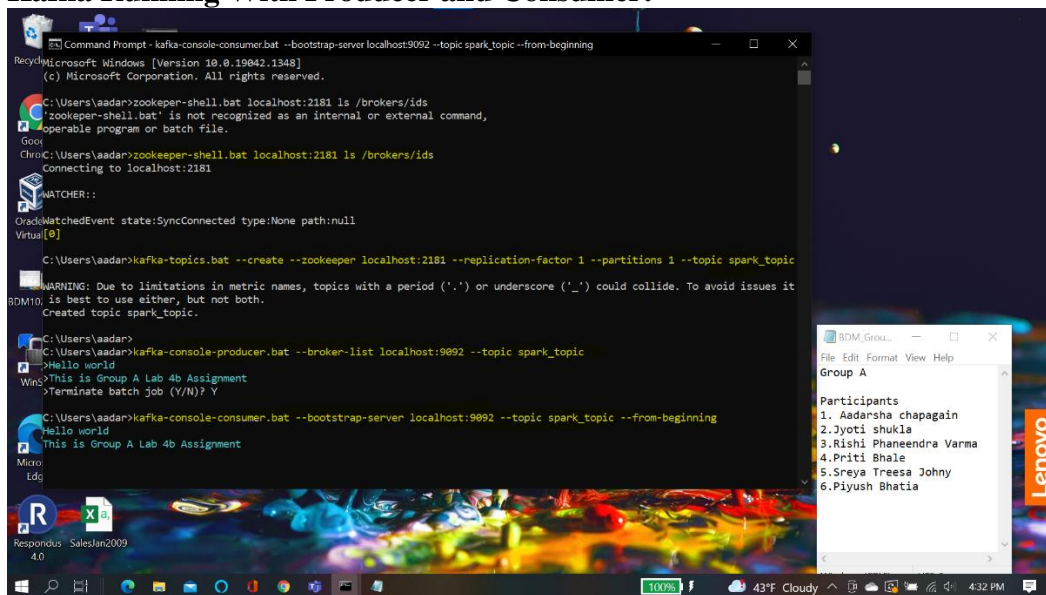
Lab 4B

Apache Kafka

Participants:

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Kafka Running With Producer and Consumer:



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();

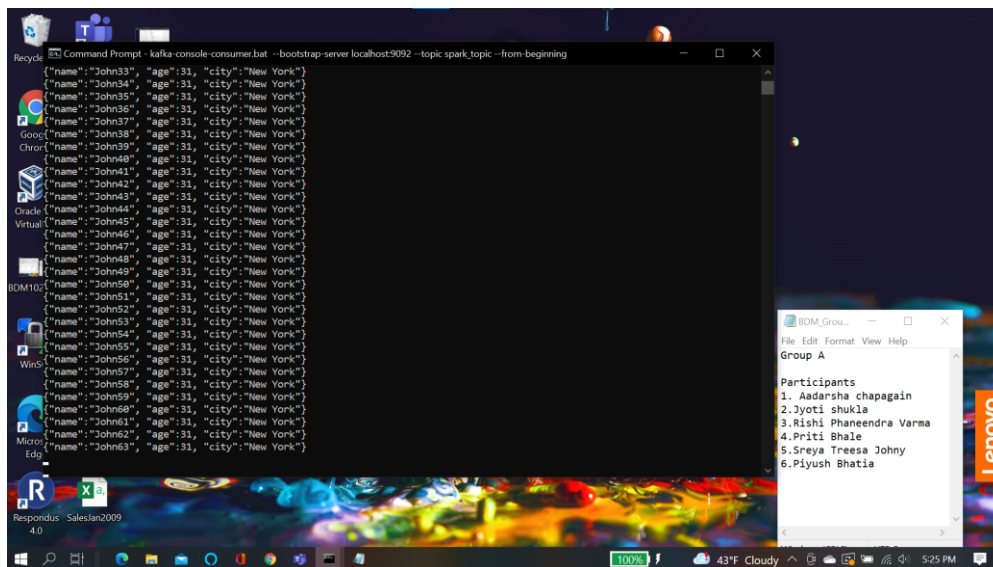
                producer.send(new ProducerRecord<String, String>(
                    TOPIC_NAME, messageKey, messageValue));
                System.out.println("Producer - " + messageKey + ": Message sent
successfully");
            }
        } catch (Exception e) {
            e.printStackTrace();
        } finally {
            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\"}";
    }
}

```



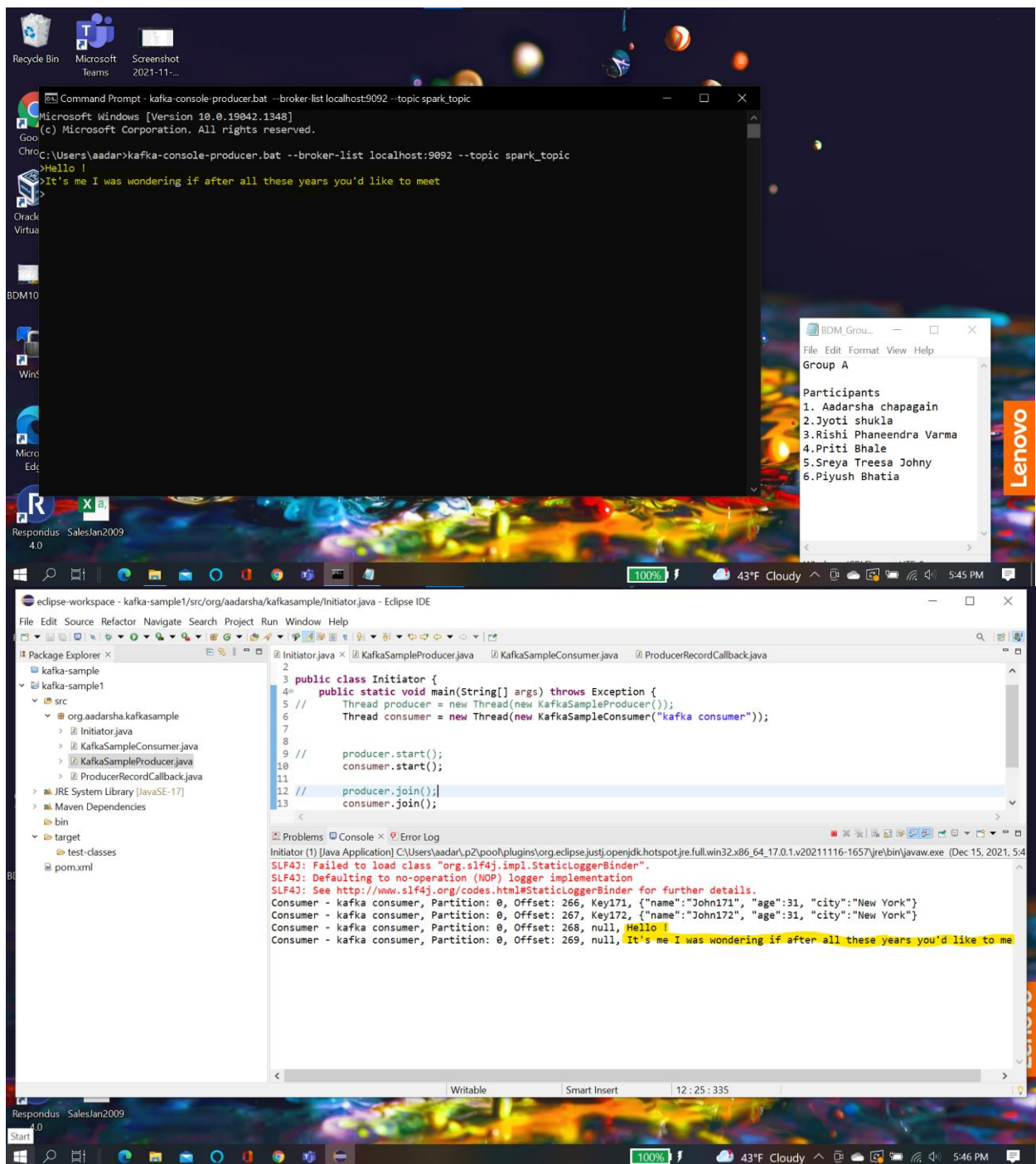
Console producer /App consumer

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();
    }
}
```



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();
    }
}
```

