**BY Ayush Singh**

**Project Structure**
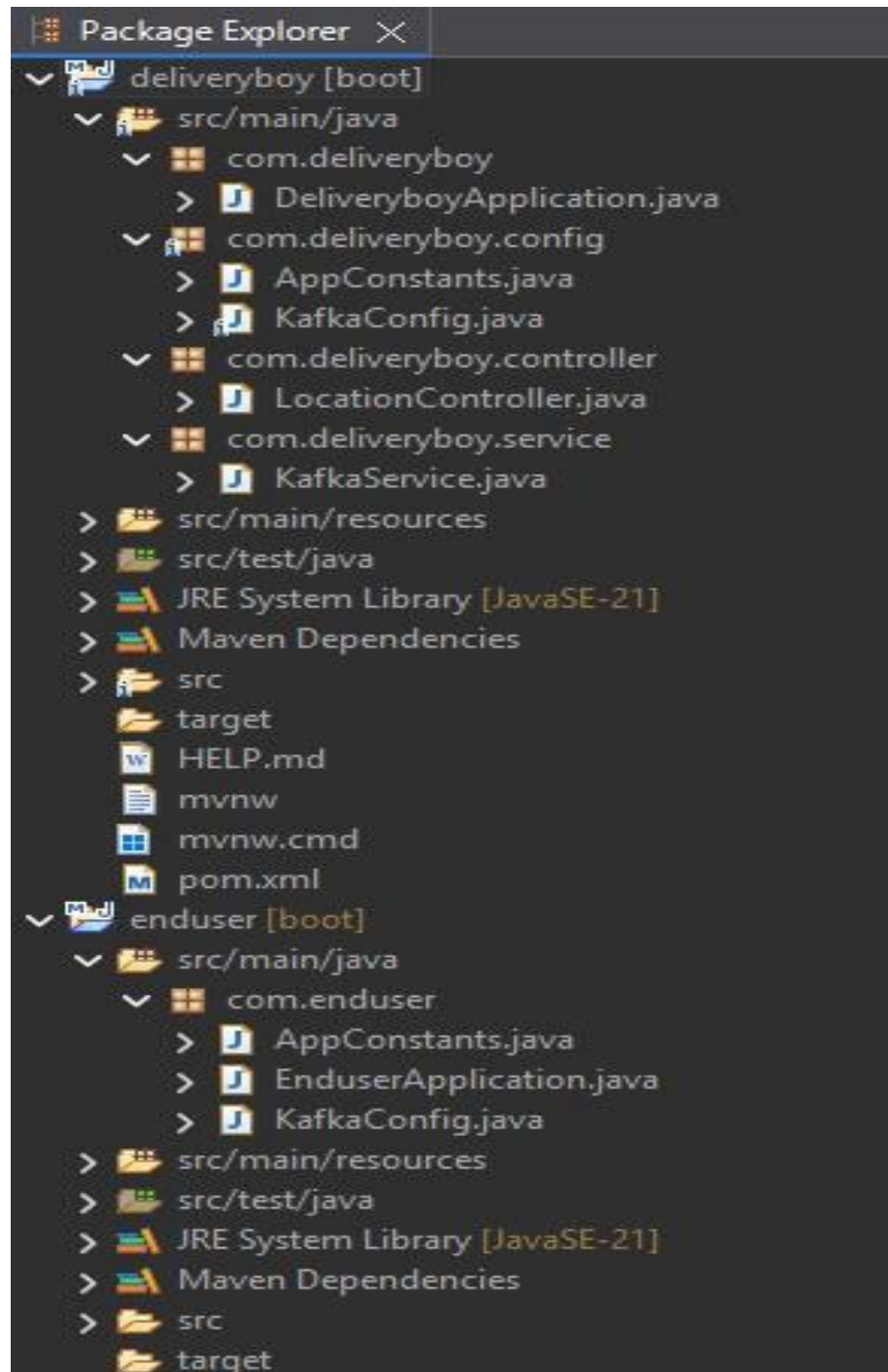
**Producer codes**

```java
// DeliveryboyApplication.java
1  package com.deliveryboy;
2
3  import org.springframework.boot.SpringApplication;
4  import org.springframework.boot.autoconfigure.SpringBootApplication;
5
6  @SpringBootApplication
7  public class DeliveryboyApplication {
8
9      public static void main(String[] args) {
10         SpringApplication.run(DeliveryboyApplication.class, args);
11     }
12
13 }
14
```

```java
// AppConstants.java
1  package com.deliveryboy.config;
2
3  public class AppConstants {
4
5      public static final String location_topic_name = "location-update-topic";
6      public static final int location = 0;
7  }
8
```

```java
 1  package com.deliveryboy.controller;
 2
 3  import com.deliveryboy.service.KafkaService;
 4  import org.springframework.beans.factory.annotation.Autowired;
 5  import org.springframework.http.HttpStatus;
 6  import org.springframework.http.ResponseEntity;
 7  import org.springframework.web.bind.annotation.PostMapping;
 8  import org.springframework.web.bind.annotation.RequestMapping;
 9  import org.springframework.web.bind.annotation.RestController;
10
11  import java.util.Map;
12
13  @RestController
14  @RequestMapping("/location")
15  public class LocationController {
16
17      @Autowired
18      private KafkaService kafkaService;
19
20      @PostMapping("/update")
21      public ResponseEntity<?> updateLocation() {
22
23          for (int i = 1; i <= 200000; i++) {
24              this.kafkaService.updateLocation("( " + Math.round(Math.random() * 100) + " , " + Math.round(Math.random() * 100) + " " + ")
25          }
26
27          return new ResponseEntity<>(Map.of("message", "Location updated"), HttpStatus.OK);
28      }
29
30  }
```

```java
 1  package com.deliveryboy.config;
 2
 3  import org.apache.kafka.clients.admin.NewTopic;
 4  import org.springframework.context.annotation.Bean;
 5  import org.springframework.context.annotation.Configuration;
 6  import org.springframework.kafka.config.TopicBuilder;
 7
 8  @Configuration
 9  public class KafkaConfig {
10
11
12      @Bean
13      public NewTopic  topic() {
14          return TopicBuilder
15                  .name("location-update-topic")
16  //              .partitions()
17          //      .replicas()
18                  .build();
19      }
20  }
21
```

Tabs: DeliveryboyApplication.java | AppConstants.java | KafkaConfig.java | LocationController.java | KafkaService.java ✕

```java
package com.deliveryboy.service;

import com.deliveryboy.config.AppConstants;
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.kafka.core.KafkaTemplate;
import org.springframework.stereotype.Service;

@Service
public class KafkaService {

    @Autowired
    private KafkaTemplate<String, String> kafkaTemplate;

    private Logger logger = LoggerFactory.getLogger(KafkaService.class);

    public boolean updateLocation(String location) {

        this.kafkaTemplate.send(AppConstants.location_topic_name, location);
        this.logger.info("message produced");
        return true;
    }
}
```

Tabs: DeliveryboyApplication.java | AppConstants.java | KafkaConfig.java | LocationController.java | KafkaService.java | application.properties ✕

```
spring.application.name=deliveryboy
spring.kafka.producer.bootstrap-servers=localhost:9092
spring.kafka.producer.key-serializer=org.apache.kafka.common.serialization.StringSerializer
spring.kafka.producer.value-serializer=org.apache.kafka.common.serialization.StringSerializer
```
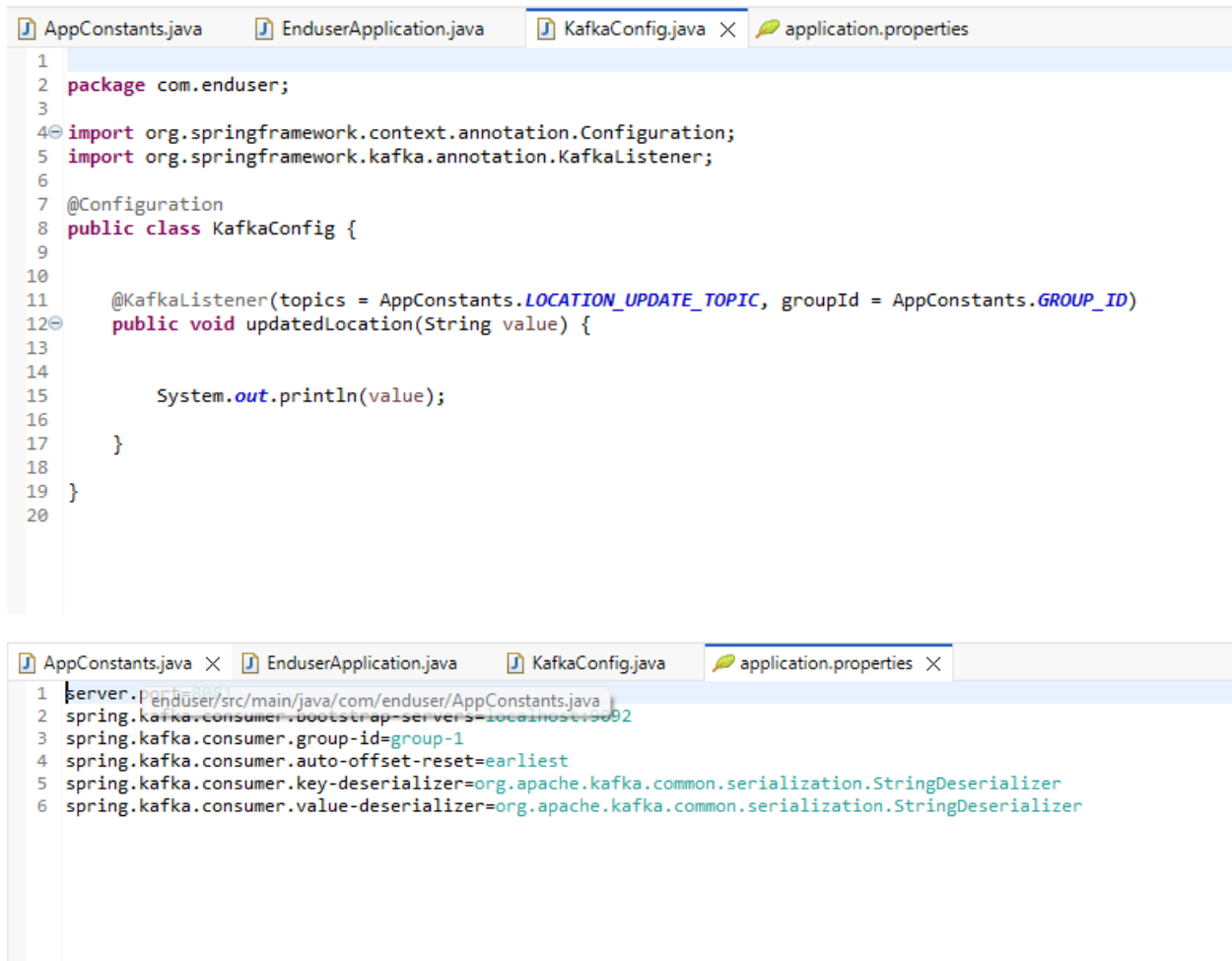
Consumer codes

Tabs: AppConstants.java | EnduserApplication.java | KafkaConfig.java | application.properties

```java
package com.enduser;

public class AppConstants {

    public static final String LOCATION_UPDATE_TOPIC="location-update-topic";
    public static final String  GROUP_ID="group-1";

}
```

Tabs: AppConstants.java | EnduserApplication.java | KafkaConfig.java | application.properties

```java
package com.enduser;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication
public class EnduserApplication {

    public static void main(String[] args) {
        SpringApplication.run(EnduserApplication.class, args);
    }

}
```
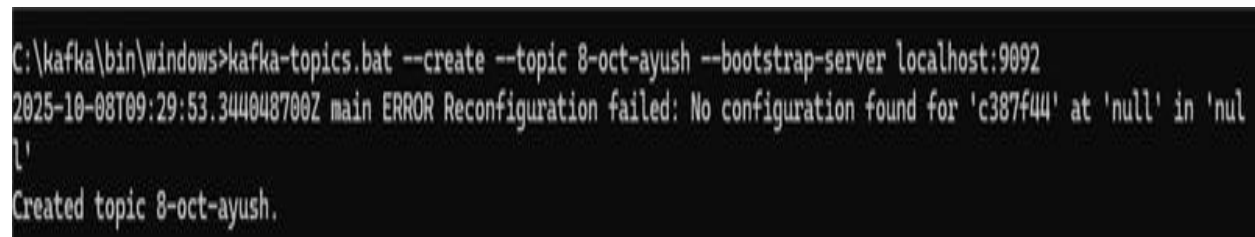
```java
package com.enduser;

import org.springframework.context.annotation.Configuration;
import org.springframework.kafka.annotation.KafkaListener;

@Configuration
public class KafkaConfig {


    @KafkaListener(topics = AppConstants.LOCATION_UPDATE_TOPIC, groupId = AppConstants.GROUP_ID)
    public void updatedLocation(String value) {


        System.out.println(value);

    }

}
```

AppConstants.java ✕   EnduserApplication.java   KafkaConfig.java   application.properties ✕

```properties
server.port=...
spring.kafka.consumer.bootstrap-servers=localhost:9092
spring.kafka.consumer.group-id=group-1
spring.kafka.consumer.auto-offset-reset=earliest
spring.kafka.consumer.key-deserializer=org.apache.kafka.common.serialization.StringDeserializer
spring.kafka.consumer.value-deserializer=org.apache.kafka.common.serialization.StringDeserializer
```

Apache Kafka Server Topic Creation

```
C:\kafka\bin\windows>kafka-topics.bat --create --topic 8-oct-ayush --bootstrap-server localhost:9092
2025-10-08T09:29:53.344048700Z main ERROR Reconfiguration failed: No configuration found for 'c387f44' at 'null' in 'nul
l'
Created topic 8-oct-ayush.
```

Producer

```
C:\kafka\bin\windows>kafka-console-producer.bat --topic 8-oct-ayush --bo
otstrap-server localhost:9092
2025-10-08T09:35:32.835340900Z main ERROR Reconfiguration failed: No con
figuration found for 'c387f44' at 'null' in 'null'
>Hi , this is ayush
>software consultant at Encora
>
```
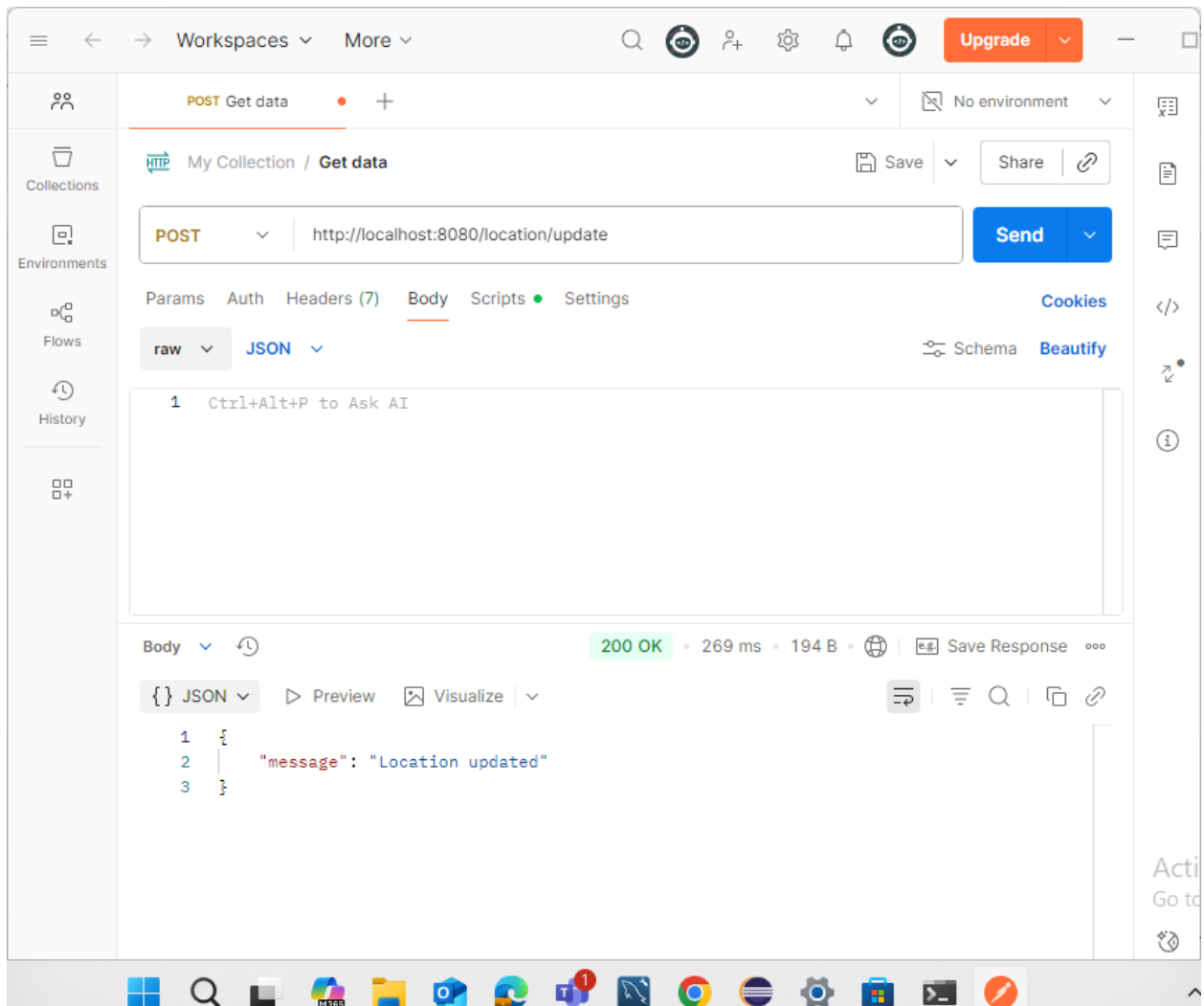
Consumer

```
C:\kafka\bin\windows>kafka-console-consumer.bat --topic 8-oct-ayush --bo
otstrap-server localhost:9092
2025-10-08T09:35:55.914952800Z main ERROR Reconfiguration failed: No con
figuration found for 'c387f44' at 'null' in 'null'
Hi , this is ayush
software consultant at Encora
```

Outputs

```
Console ×

enduser - EnduserApplication [Spring Boot App] C:\Users\Ayush.Singh\.p2\pool\plugins\org.ecl
2025-10-08T16:14:02.599+05:30  INFO 4324 --- [          main] o.a.kafk
2025-10-08T16:14:02.604+05:30  INFO 4324 --- [          main] o.a.k.c.
2025-10-08T16:14:02.620+05:30  INFO 4324 --- [          main] com.endu
2025-10-08T16:14:03.084+05:30  INFO 4324 --- [ntainer#0-0-C-1] org.apac
2025-10-08T16:14:03.085+05:30  INFO 4324 --- [ntainer#0-0-C-1] o.a.k.c.
2025-10-08T16:14:03.087+05:30  INFO 4324 --- [ntainer#0-0-C-1] o.a.k.c.
2025-10-08T16:14:03.104+05:30  INFO 4324 --- [ntainer#0-0-C-1] o.a.k.c.
2025-10-08T16:14:03.105+05:30  INFO 4324 --- [ntainer#0-0-C-1] o.a.k.c.
2025-10-08T16:14:06.127+05:30  INFO 4324 --- [ntainer#0-0-C-1] o.a.k.c.
2025-10-08T16:14:06.136+05:30  INFO 4324 --- [ntainer#0-0-C-1] o.a.k.c.
2025-10-08T16:14:06.156+05:30  INFO 4324 --- [ntainer#0-0-C-1] o.a.k.c.
2025-10-08T16:14:06.156+05:30  INFO 4324 --- [ntainer#0-0-C-1] o.a.k.c.
2025-10-08T16:14:06.159+05:30  INFO 4324 --- [ntainer#0-0-C-1] k.c.c.i.
2025-10-08T16:14:06.175+05:30  INFO 4324 --- [ntainer#0-0-C-1] o.a.k.c.
2025-10-08T16:14:06.202+05:30  INFO 4324 --- [ntainer#0-0-C-1] o.a.k.c.
2025-10-08T16:14:06.204+05:30  INFO 4324 --- [ntainer#0-0-C-1] o.s.k.l.
( 19 , 58 )
( 3 , 81 )
( 82 , 53 )
( 58 , 88 )
( 53 , 86 )
( 21 , 40 )
( 88 , 52 )
( 0 , 21 )
( 49 , 98 )
( 31 , 49 )
( 75 , 64 )
( 42 , 79 )
( 67 , 51 )
( 38 , 83 )
( 12 , 87 )
( 30 , 33 )
( 95 , 50 )
( 8 , 25 )
( 48 , 18 )
( 80 , 34 )
```

Activate Windows
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```
.random.implementation = null
anager.algorithm = PKIX
tore.certificates = null
tore.location = null
tore.password = null
tore.type = JKS
n.timeout.ms = 60000
nal.id = null
alizer = class org.apache.kafka.common.serialization.StringSerializer

9.184+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] o.a.k.c.t.i.KafkaMetricsCollector          : initializing Kafka metric
9.193+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] o.a.k.clients.producer.KafkaProducer       : [Producer clientId=delive
9.221+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] o.a.kafka.common.utils.AppInfoParser       : Kafka version: 3.9.1
9.221+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] o.a.kafka.common.utils.AppInfoParser       : Kafka commitId: f745dfdce
9.221+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] o.a.kafka.common.utils.AppInfoParser       : Kafka startTimeMs: 175992
9.236+05:30  INFO 11920 --- [deliveryboy] [yboy-producer-1] org.apache.kafka.clients.Metadata          : [Producer clientId=delive
9.237+05:30  INFO 11920 --- [deliveryboy] [yboy-producer-1] o.a.k.c.p.internals.TransactionManager     : [Producer clientId=delive
9.249+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
9.250+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
9.250+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
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9.250+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
9.250+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
9.251+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
9.251+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
9.251+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
9.251+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
9.252+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
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9.252+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
9.252+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
9.252+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
9.254+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
9.254+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
9.256+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
9.256+05:30  INFO 11920 --- [deliveryboy] [nio-8080-exec-2] com.deliveryboy.service.KafkaService        : message produced
```

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