设计思路

- 实操5拓展题主要在于在程序输出的同时动态改变user关键字的值，这里做成springboot的web项目，对外开放改变user关键字的接口

测试入口

- job5\src\main\java\com\bigdata\week3\job5目录下Job5Application.java直接执行
- 使用postman或是浏览器对localhost:8022发送url指令启动程序或者改变user关键字
- localhost:8022/job/run：启动
- localhost:8022/job/change?user=吴夫子：将关键字改为吴夫子

核心代码

controller

```
@RestController
@RequestMapping("/job5")
public class Controller {
    @RequestMapping("/run")
    public void run(){
        System.out.println("run");
        job5.run();
    }
    @RequestMapping("/stop")
    public void stop() throws InterruptedException {
        System.out.println("stop");
    }
    @RequestMapping("/change")
    public void change(@RequestParam("user")String user) throws
InterruptedException {
        System.out.println("change:"+user);
        job5.changeUser(user);
    }
}
```

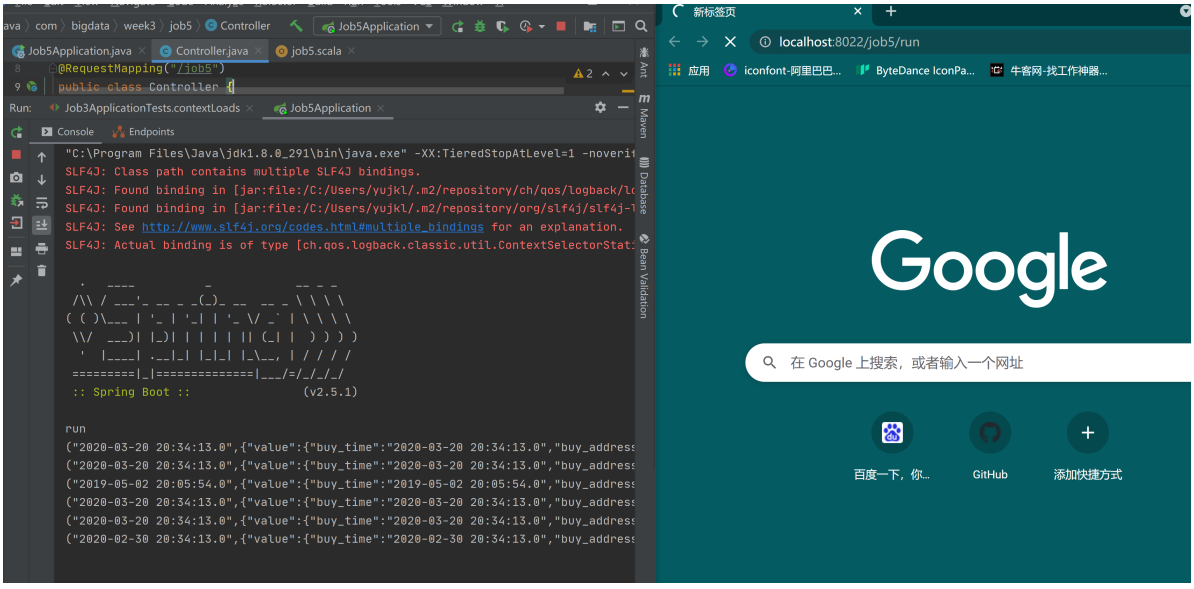
job5.scala

```
object job5 {
  //需要监控的人名
  var user = "汤欣欣"
  var env = StreamExecutionEnvironment.getExecutionEnvironment
  val inputTopics: util.ArrayList[String] = new util.ArrayList[String]() {
    {
      add("mn_buy_ticket_1") //车票购买记录主题
      add("mn_hotel_stay_1") //酒店入住信息主题
      add("mn_monitoring_1") //监控系统数据主题
    }
  }
  val bootstrapServers =
"bigdata35.depts.bingosoft.net:29035,bigdata36.depts.bingosoft.net:29036,bigdata
37.depts.bingosoft.net:29037"
```

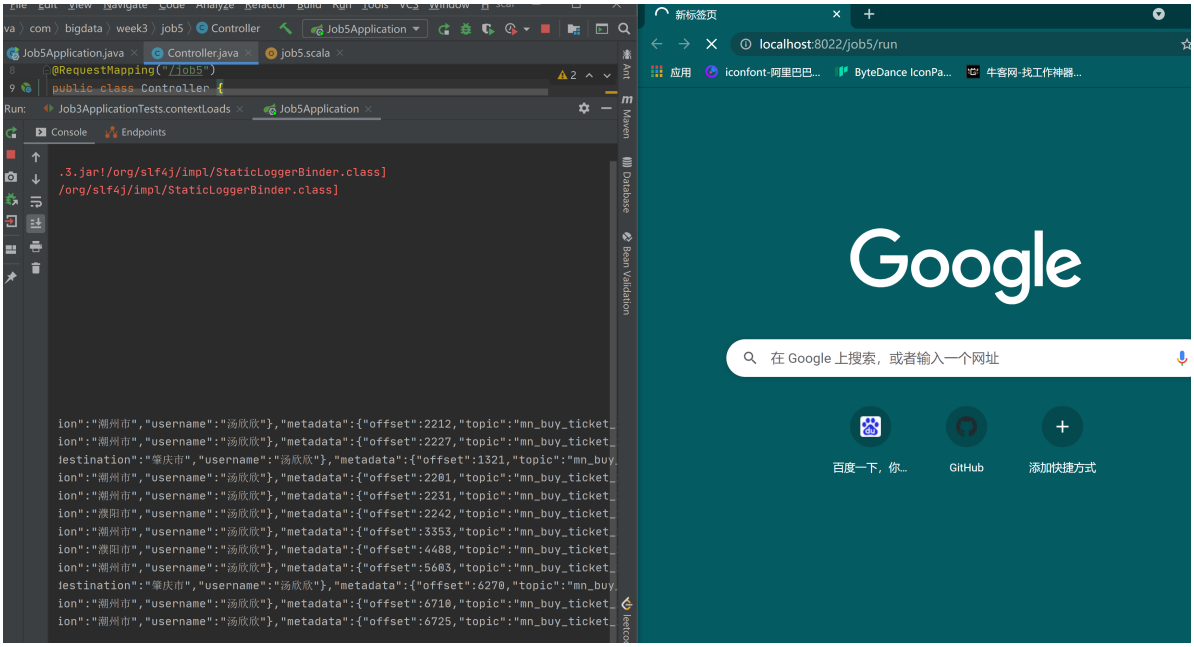
```
  def getUser(): String ={
    user
  }

  def changeUser(name:String): Unit ={
    user=name
  }
  def run(): Unit = {
    env.setParallelism(1)
    val kafkaProperties = new Properties()
    kafkaProperties.put("bootstrap.servers", bootstrapServers)
    kafkaProperties.put("group.id", UUID.randomUUID().toString)
    kafkaProperties.put("auto.offset.reset", "earliest")
    kafkaProperties.put("key.deserializer",
"org.apache.kafka.common.serialization.StringDeserializer")
    kafkaProperties.put("value.deserializer",
"org.apache.kafka.common.serialization.StringDeserializer")
    val kafkaConsumer = new FlinkKafkaConsumer010[ObjectNode](inputTopics,
      new JSONKeyValueDeserializationSchema(true), kafkaProperties)
    kafkaConsumer.setCommitOffsetsOnCheckpoints(true)
    val inputKafkaStream = env.addSource(kafkaConsumer)
    inputKafkaStream.filter(x =>
x.get("value").get("username").asText("").equals(user)).map(x => {
      (x.get("metadata").get("topic").asText("") match {
        case "mn_monitoring_1"
        => x.get("value").get("found_time")
        case _ => x.get("value").get("buy_time")
      }, x)
    }).print()
    env.execute()
  }
}
```

最终效果

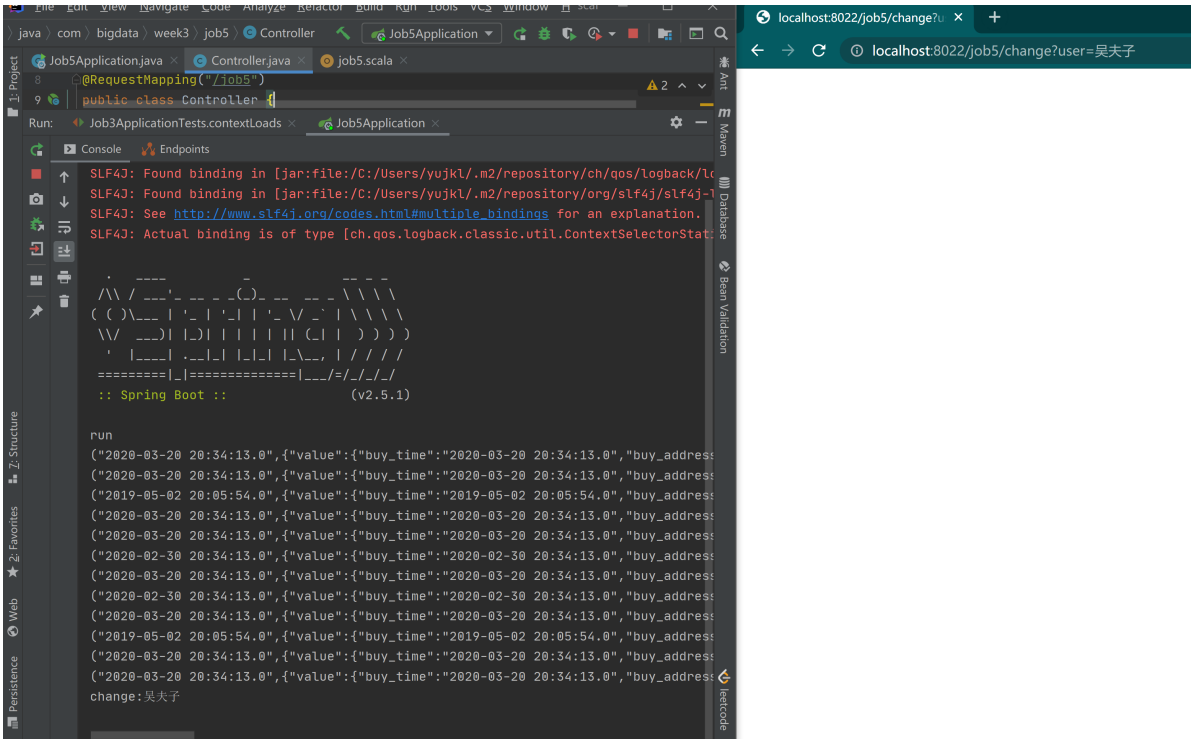
- localhost:8022/job/run启动



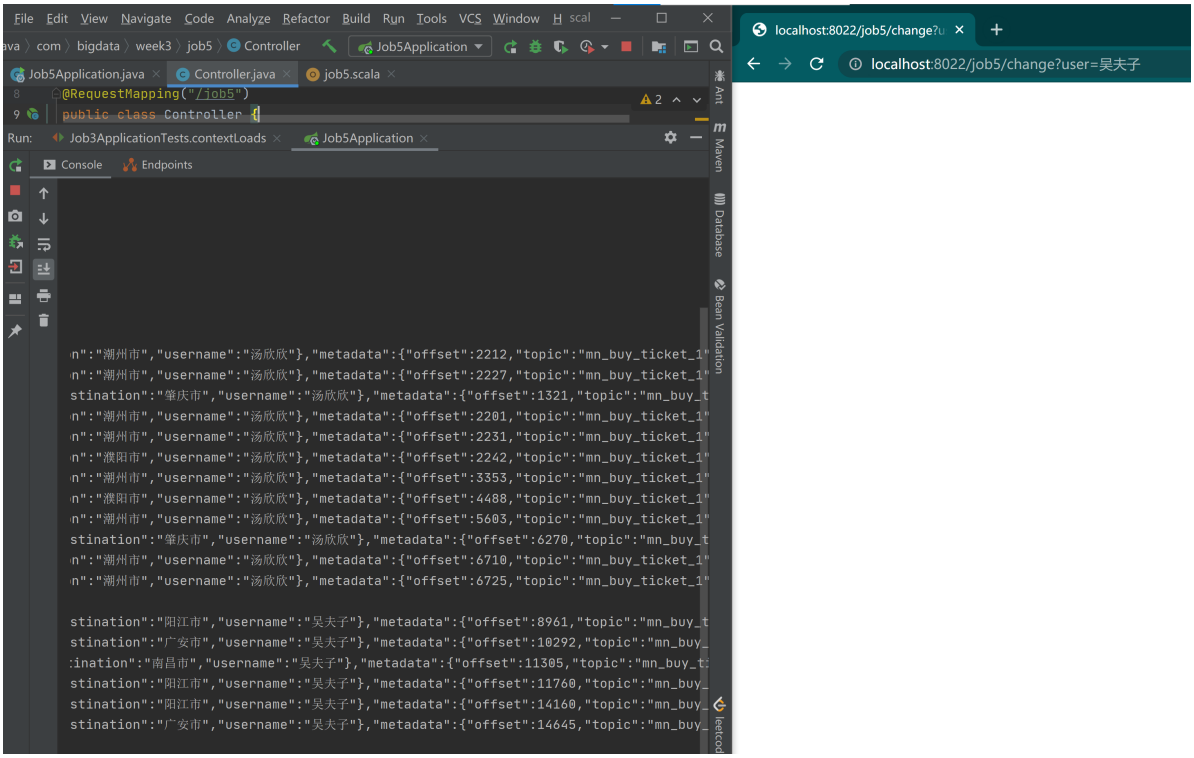
- localhost:8022/job/run启动后获取到汤欣欣的数据



- localhost:8022/job/change?user=吴夫子　将关键字改为吴夫子



- localhost:8022/job/change?user=吴夫子　查到吴夫子的数据


File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window H scal
ava 〉 com 〉 bigdata 〉 week3 〉 job5 〉 Controller
Job5Application
Job5Application.java
Controller.java
job5.scala
@RequestMapping("/job5")
public class Controller {
Run:
Job3ApplicationTests.contextLoads
Job5Application
Console
Endpoints
n":"潮州市","username":"汤欣欣"},"metadata":{"offset":2212,"topic":"mn_buy_ticket_1"
n":"潮州市","username":"汤欣欣"},"metadata":{"offset":2227,"topic":"mn_buy_ticket_1"
stination":"肇庆市","username":"汤欣欣"},"metadata":{"offset":1321,"topic":"mn_buy_t
n":"潮州市","username":"汤欣欣"},"metadata":{"offset":2201,"topic":"mn_buy_ticket_1"
n":"潮州市","username":"汤欣欣"},"metadata":{"offset":2231,"topic":"mn_buy_ticket_1"
n":"濮阳市","username":"汤欣欣"},"metadata":{"offset":2242,"topic":"mn_buy_ticket_1"
n":"潮州市","username":"汤欣欣"},"metadata":{"offset":3353,"topic":"mn_buy_ticket_1"
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stination":"肇庆市","username":"汤欣欣"},"metadata":{"offset":6270,"topic":"mn_buy_t
n":"潮州市","username":"汤欣欣"},"metadata":{"offset":6710,"topic":"mn_buy_ticket_1"
n":"潮州市","username":"汤欣欣"},"metadata":{"offset":6725,"topic":"mn_buy_ticket_1"
stination":"阳江市","username":"吴夫子"},"metadata":{"offset":8961,"topic":"mn_buy_t
stination":"广安市","username":"吴夫子"},"metadata":{"offset":10292,"topic":"mn_buy_
:ination":"南昌市","username":"吴夫子"},"metadata":{"offset":11305,"topic":"mn_buy_t
stination":"阳江市","username":"吴夫子"},"metadata":{"offset":11760,"topic":"mn_buy_
stination":"阳江市","username":"吴夫子"},"metadata":{"offset":14160,"topic":"mn_buy_
stination":"广安市","username":"吴夫子"},"metadata":{"offset":14645,"topic":"mn_buy_
Ant
Maven
Database
Bean Validation
leetcod
localhost:8022/job5/change?u
localhost:8022/job5/change?user=吴夫子