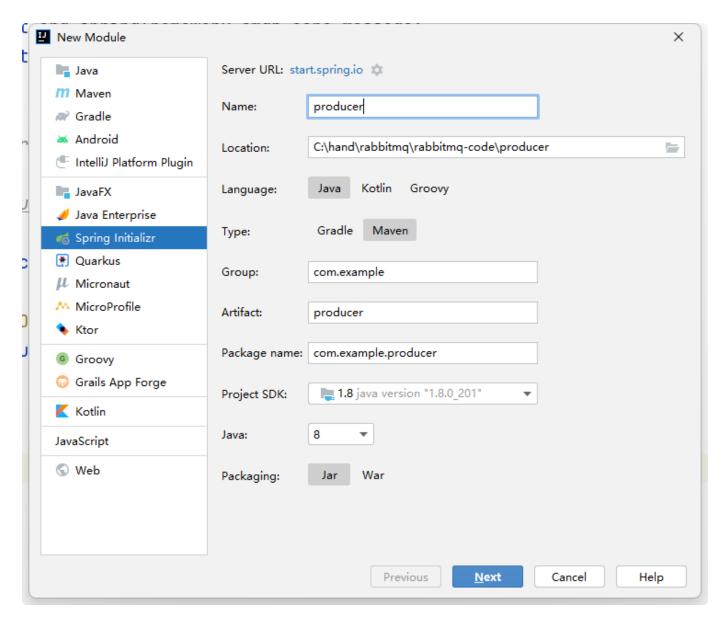
SpringBoot整合RabbitMQ

- 1.创建好消费者模块和生产者模块
- 2.两个模块配置yml文件
- 3.编写Producer-配置类
- 4.编写Producer-测试类发送消息
- 5.编写Consumer-监听类组件接收消息

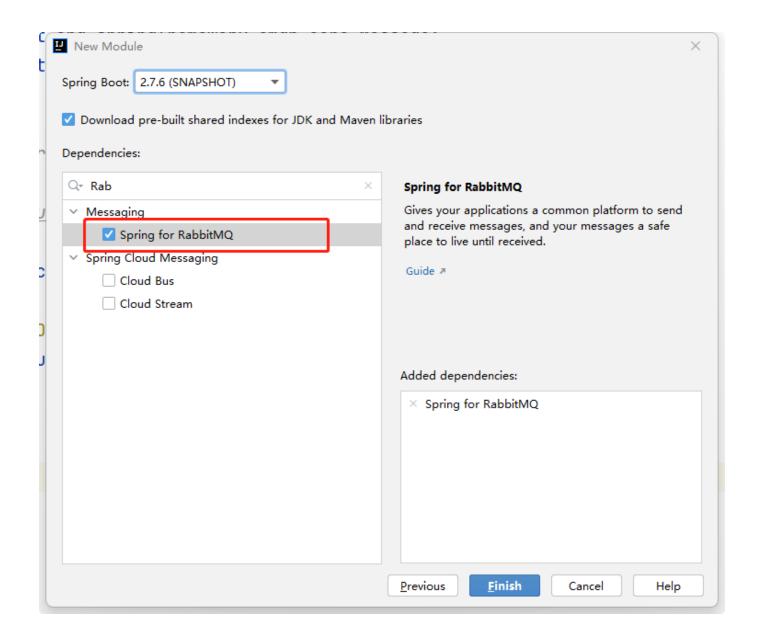
总结

1.创建好消费者模块和生产者模块

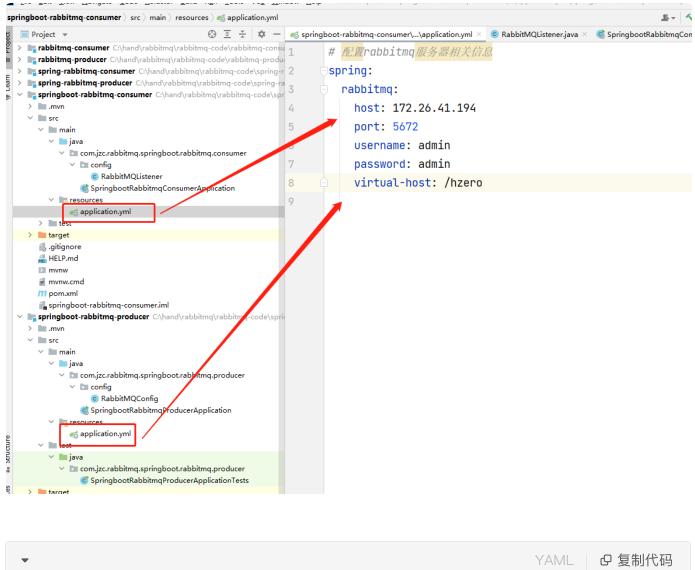
• 选择对应的Java版本和Maven库



• 添加Springboot-RabbitMQ依赖包



2.两个模块配置yml文件



```
# 配置rabbitmq服务器相关信息
1
2
   spring:
3
   rabbitmq:
   host: 172.26.41.194
4
5
   port: 5672
6
   username: admin
7
   password: admin
8
   virtual-host: /hzero
```

3.编写Producer-配置类

```
🤁 📱 🛊 😑 pringbootRabbitmqProducerApplicationTests.java × . 🔞 SpringQueueListener.java × . 🏥 rabbitmq.properties × 🍰 spring-rabbitmq-consumer.xml × ___ ® RabbitMQConfig.java ×
spring-rabbitmq-producer C:\hand\rabbitmq\rabbitmq\code\spring-ra 7
                                                                                                                                      import org.springframework.context.annotation.Configuration;
springboot-rabbitmg-consumer C:\hand\rabbitmg\rabbitmg\rabbitmg-code\spr
                                                                                                                      9
                                                                                                                                       J/**
 ∨ 🗎 src
                                                                                                                    10
                                                                                                                                          * rabbitmq配置类
         ∨ 🖿 java

∨ Image: value of the construction of the
                  config
                                                                                                                                           * @author zhichao.jiang01@hand-china.com 2022/10/25 10:04

    RabbitMQListener

                      SpringbootRabbitmqConsumerApplication
                                                                                                                    14
                                                                                                                                         @Configuration
                   > limitest
                                                                                                                    15 🍖
                                                                                                                                        public class RabbitMQConfig {
> imaget
     # .gitignore
                                                                                                                                                     public static final String EXCHANGE_NAME = "boot_topic_exchange";
     mvnw mvnw.cmd
                                                                                                                                                    public static final String QUEUE_NAME = "boot_queue";
     m pom.xml
     #springboot-rabbitmq-consumer.iml
springboot-rabbitmq-producer C:\hand\r
                                                                                                                                                     //交换机
 ∨ IIII src
                                                                                                                    21
                                                                                                                                                    @Bean("bootExchange")
                                                                                                                                                    public Exchange bootExchange() {

    tom.jzc.rabbitmq.springboot.rabbitmq.prody

                                                                                                                                                                return ExchangeBuilder.topicExchange(EXCHANGE_NAME).durable(true).build();
                   ∨ la config
                  © RabbitMQConfig
                                                                                                                  24
                        SpringbootRabbitmqProducerApplication
                   //队列
                                                                                                                    27
                                                                                                                                                    @Bean("bootQueue")
          ∨ 🗎 iava
                🔻 🖿 com.jzc.rabbitmq.springboot.rabbitmq.producer
                                                                                                                                                    public Queue bootQueue() { return QueueBuilder.durable(QUEUE_NAME).build(); }
                      © SpringbootRabbitmqProducerApplicationTests
     # .gitignore
                                                                                                                                                     //队列和交换机绑定关系
     ## HELP.md

    mvnw

                                                                                                                    34
                                                                                                                                                             1. 知道哪个队列
     m pom.xml
     🕌 springboot-rabbitmq-producer.iml
                                                                                                                    35
                                                                                                                                                             2. 知道哪个交换机
III External Libraries
                                                                                                                                                             3. routing key
```

• 利用ExchangeBuilder、QueueBuilder、BindingBuilder构建交换机、队列、绑定

Java 📗 🗗 复制代码

```
1 - /**
    * rabbitmq配置类
 4
    * @author zhichao.jiang01@hand-china.com 2022/10/25 10:04
 5
    */
    @Configuration
 6
        public class RabbitMQConfig {
 7 =
8
            public static final String EXCHANGE_NAME = "boot_topic_exchange";
9
            public static final String QUEUE NAME = "boot queue";
10
11
            //交换机
12
            @Bean("bootExchange")
13
            public Exchange bootExchange() {
14 -
15
                 return ExchangeBuilder.topicExchange(EXCHANGE_NAME).durable(tr
    ue).build();
16
            }
17
            //队列
18
            @Bean("bootQueue")
19
20 -
            public Queue bootQueue(){
                 return QueueBuilder.durable(QUEUE_NAME).build();
21
22
            }
23
24
            //队列和交换机绑定关系
25 =
              1. 知道哪个队列
26
27
              2. 知道哪个交换机
28
              3. routing key
29
            */
30
            @Bean
            public Binding bindQueueExchange(@Qualifier("bootQueue") Queue que
31 -
    ue,@Qualifier("bootExchange") Exchange exchange){
                 return BindingBuilder.bind(queue).to(exchange).with("boot.#").
32
    noargs();
33
            }
34
        }
35
```

4.编写Producer-测试类发送消息

• 注入RabbitTemplate组件通过convertAndSend发送消息到对应的交换机

```
Java 📗 🖸 复制代码
 1
       @SpringBootTest
       @RunWith(SpringRunner.class)
 3  class SpringbootRabbitmqProducerApplicationTests {
 4
 5
             @Autowired
              private RabbitTemplate rabbitTemplate;
 6
 7
             @Test
 8
             void testSend() {
 9 =
                    rabbitTemplate.convertAndSend(RabbitMQConfig.EXCHANGE NAME,"boot.h
10
       h", "hello springboot rabbitmq");
11
12
13
       }
14
                                                                                                                        Refreshed 20:
 RabbitMQ 3.8.2 Erlang 22.2.7
                    Channels
                            Exchanges Queues Admin
 Queues
  All queues (15)
 Pagination
 Page 1 v of 1 - Filter:
                            ☐ Regex ?
                                          Messages

Ready Unacked Total
                                                            Message rates
 Virtual host Name
                        Type Features State
                                                           incoming deliver / get ack
 /hzero boot_queue
         hello_world
 /hzero spring_fanout_queue_1 classic D
                                                          1 0.00/s
 /hzero
        spring_fanout_queue_2 classic
                                   idle
                                                             0.00/s
        spring_queue
                        classic
                                    idle
                                                             0.00/s
                                                                     0.00/s
 /hzero
        spring_topic_queue_star classic
 /hzero
                                                         1 0.00/s
        spring topic queue well classic
         spring_topic_queue_well2 classic
        test_direct_queue1 classic D
                                    idle
                                                         0 0.00/s
 /hzero
 /hzero
        test_direct_queue2
                        classic
                                    idle
                                                             0.00/s
                                                                     0.00/s
                                                                           0.00/s
```

0.00/s

0 0.00/s

0 0.00/s

0.00/s

0.00/s

0.00/s

0.00/s

0.00/s

0.00/s

5.编写Consumer-监听类组件接收消息

idle

idle

idle

HTTP API Server Docs Tutorials Community Support Community Slack Commercial Support Plugins GitHub Changelog

idle

/hzero

/hzero

/hzero

Add a new queue

test fanout queue2

test_topic_queue2

workQueue

test_topic_queue1 classic

classic

classic

```
😌 📱 🛨 🛑 🄞 RabbitMQListener java 🛪 💰 SpringbootRabbitmqConsumerApplication.java × 🚜 springboot-rabbitmq-producer\,...\application.yml × 💰 SpringbootRabbitmqProducerApplic
rabbitmq-consumer
                                                                                                                                                                                                                                                                                                                                                                                                                              A1 A1 ^ v ==== 5 k
                                                                                                                                                               package com.jzc.rabbitmq.springboot.rabbitmq.consumer.config;
rabbitmq-producer C:\hand\rabbitmq\rabbitmq-code\rabbitmq-producer
spring-rabbitmq-producer C:\hand\rabbitmq\rabbitmq-code\spring-ra
                                                                                                                                                               import org.springframework.amqp.core.Message;
                                                                                                                                                               import org.springframework.amqp.rabbit.annotation.RabbitListener;
    .mvn
src 🗎
                                                                                                                                                               import org.springframework.stereotype.Component;

∨ Image: value valu
                  © RabbitMQListener
                                                                                                                                                                 * springboot-rabbitmq- 监听类
                          d SpringbootRabbitmqCo
        resources
                                                                                                                                                                  * @author zhichao.jiang01@hand-china.com 2022/10/25 13:35
    > limitest
 target
    .gitignore
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 > |
> |
                                                                                                                                  12 🔇
                                                                                                                                                               @Component

    mvnw

                                                                                                                                  13 🍖
                                                                                                                                                               public class RabbitMQListener {
    mvnw.cmd
    mpom.xml
                                                                                                                                  14
springboot-rabbitmq-consumer.iml
                                                                                                                                                                           @RabbitListener(queues = "boot_queue")
                                                                                                                                  16 🗓 @
                                                                                                                                                                            public void ListenerQueue (Message message) {
                                                                                                                                                                                         System.out.println(new String(message.getBody()));
    ∨ 🗎 main

v Image: com.izc.rabbitmq.springboot.rabbitmq.producer

                   19
                        SpringbootRabbitmqProducerApplication
    ø application.yml

✓ 🖿 test
 ∨ liava
```

• @RabbitListener绑定对应的队列

```
Java D 复制代码
 1 - /**
 2
      * springboot-rabbitmq-监听类
 3
     * @author zhichao.jiang01@hand-china.com 2022/10/25 13:35
 4
 5
     */
 6
    @Component
 7 - public class RabbitMQListener {
 8
9
        @RabbitListener(queues = "boot_queue")
10 -
         public void ListenerQueue(Message message){
             System.out.println(new String(message.getBody()));
11
         }
12
13
14
    }
```

```
\\/ ___)||_)|||||||(_|| ))))
  ' |---| --|-| |-|-| |-\-, | / / / /
 ======|_|=====|__/=/_/_/
 :: Spring Boot ::
                    (v2.7.6-SNAPSHOT)
2022-10-25 13:46:00.039 INFO 9464 --- [
                                                  main] .c.SpringbootRabbitmqConsumerApplication : Starting SpringbootRabbitmqConsumerApplication using Java 1.8
2022-10-25 13:46:00.039 INFO 9464 --- [
                                                  main] .c.SpringbootRabbitmqConsumerApplication : No active profile set, falling back to 1 default profile: "de
                                                  main] o.s.a.r.c.CachingConnectionFactory : Attempting to connect to: [172.26.41.194:5672]
main] o.s.a.r.c.CachingConnectionFactory : Created new connection: rabbitConnectionFactory#69637b10:0/Si
2022-10-25 13:46:01.001 INFO 9464 --- [
2022-10-25 13:46:01.029 INFO 9464 --- [
2022-10-25 13:46:01.061 INFO 9464 --- [
                                                  main] .c.SpringbootRabbitmqConsumerApplication : Started SpringbootRabbitmqConsumerApplication in 1.397 second
hello springboot rabbitmq
```

总结

SpringBoot提供了快速整合RabbitMQ的方式

基本信息再yml中配置,队列交互机以及绑定关系在配置类中使用Bean的方式配置

生产端直接注入RabbitTemplate完成消息发送

消费端直接使用@RabbitListener完成消息接收