

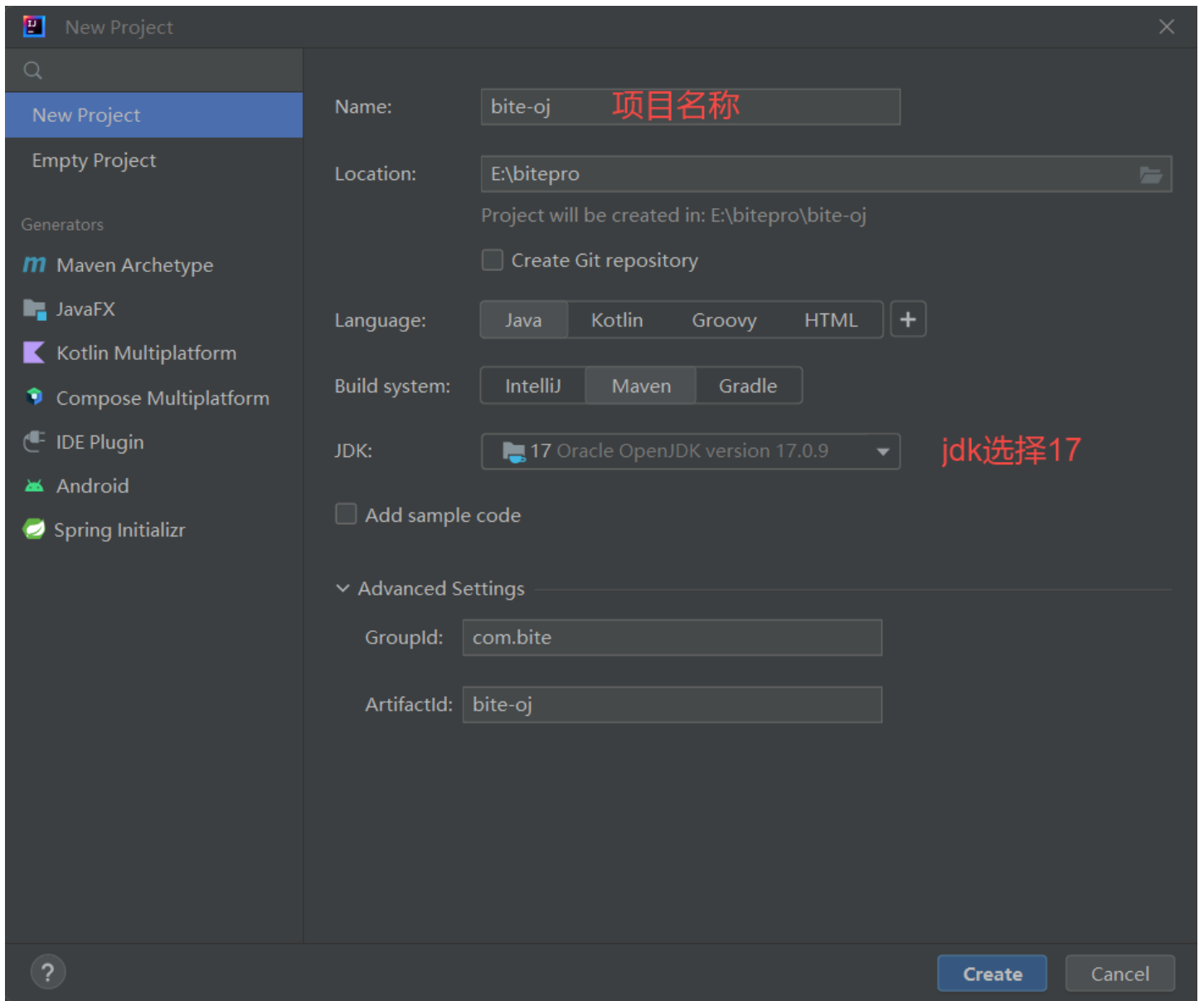
项目起步-后端工程创建

创建过程

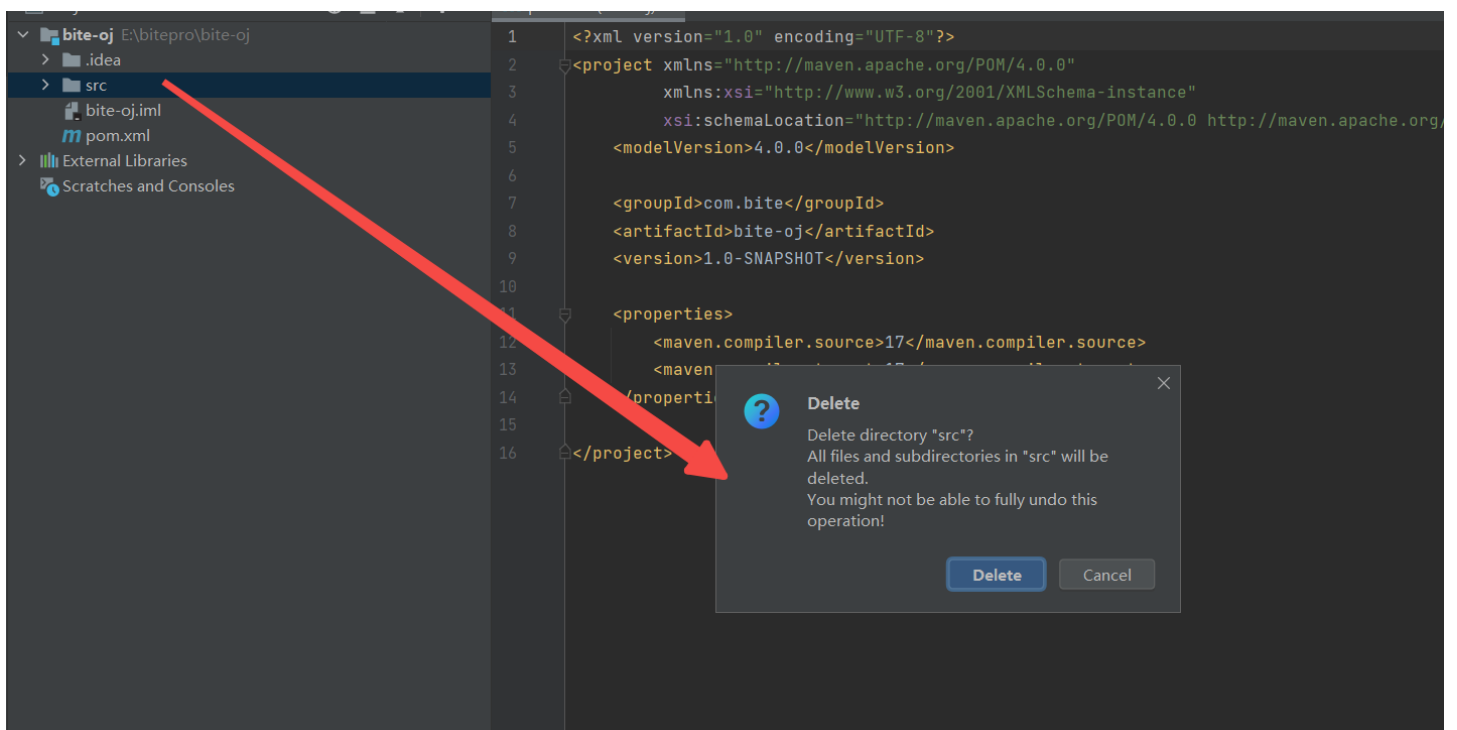
我们将整个工程划分为三级，并在此展示了完整的项目结构。对于部分工程的作用，若同学们目前不太理解，无需担忧。我们先集中精力创建已分析清楚的即oj-modules及其子工程（我们拆分出的微服务）

- bit-oj
 - oj-api 服务间调用的api
 - oj-common 公共包
 - oj-common-redis
 -
 - oj-gateway 网关
 - oj-modules 存放所有的微服务，将所有微服务统一管理
 - oj-friend
 - oj-job
 - oj-judge
 - oj-system

父级工程创建



• 删除src目录



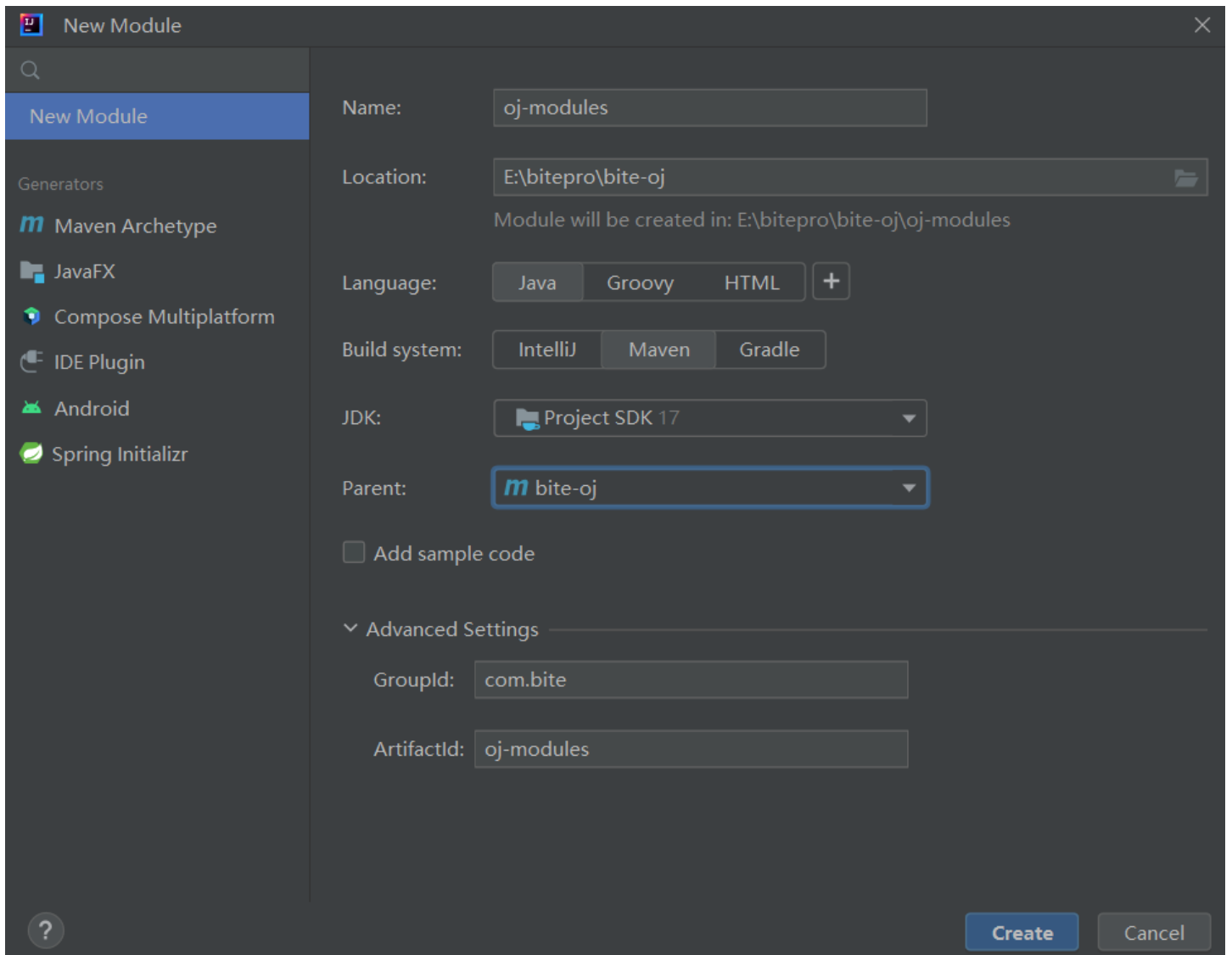
- 父工程pom.xml文件

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <project xmlns="http://maven.apache.org/POM/4.0.0"
3         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
4         xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
5         http://maven.apache.org/xsd/maven-4.0.0.xsd">
6
7     <parent>
8         <groupId>org.springframework.boot</groupId>
9         <artifactId>spring-boot-starter-parent</artifactId>
10        <version>3.0.1</version>
11        <relativePath/> <!-- lookup parent from repository -->
12    </parent>
13    <groupId>com.bite</groupId>
14    <artifactId>bite-oj</artifactId>
15    <version>1.0-SNAPSHOT</version>
16
17    <properties>
18        <maven.compiler.source>17</maven.compiler.source>
19        <maven.compiler.target>17</maven.compiler.target>
20        <spring-boot.version>3.0.1</spring-boot.version>
21        <spring-cloud-alibaba.version>2022.0.0.0-RC2</spring-cloud-
22        alibaba.version>
23        <spring-cloud.version>2022.0.0</spring-cloud.version>
24    </properties>
25
26    <dependencies>
27        <!-- bootstrap 启动器 -->
28        <dependency>
29            <groupId>org.springframework.cloud</groupId>
30            <artifactId>spring-cloud-starter-bootstrap</artifactId>
31        </dependency>
32    </dependencies>
33
34    <dependencyManagement>
35        <dependencies>
36            <!-- SpringCloud Alibaba 微服务 -->
37            <dependency>
38                <groupId>com.alibaba.cloud</groupId>
39                <artifactId>spring-cloud-alibaba-dependencies</artifactId>
40                <version>${spring-cloud-alibaba.version}</version>
41                <type>pom</type>
42                <scope>import</scope>
43            </dependency>
```

```
43
44     <!-- SpringCloud 微服务 -->
45     <dependency>
46         <groupId>org.springframework.cloud</groupId>
47         <artifactId>spring-cloud-dependencies</artifactId>
48         <version>${spring-cloud.version}</version>
49         <type>pom</type>
50         <scope>import</scope>
51     </dependency>
52
53     <!-- SpringBoot 依赖配置 -->
54     <dependency>
55         <groupId>org.springframework.boot</groupId>
56         <artifactId>spring-boot-dependencies</artifactId>
57         <version>${spring-boot.version}</version>
58         <type>pom</type>
59         <scope>import</scope>
60     </dependency>
61 </dependencies>
62 </dependencyManagement>
63
64 </project>
```

创建oj-modules

统一管理所有的微服务（除gateway外）



- 删除oj-modules工程中的src目录，并修改pom.xml文件

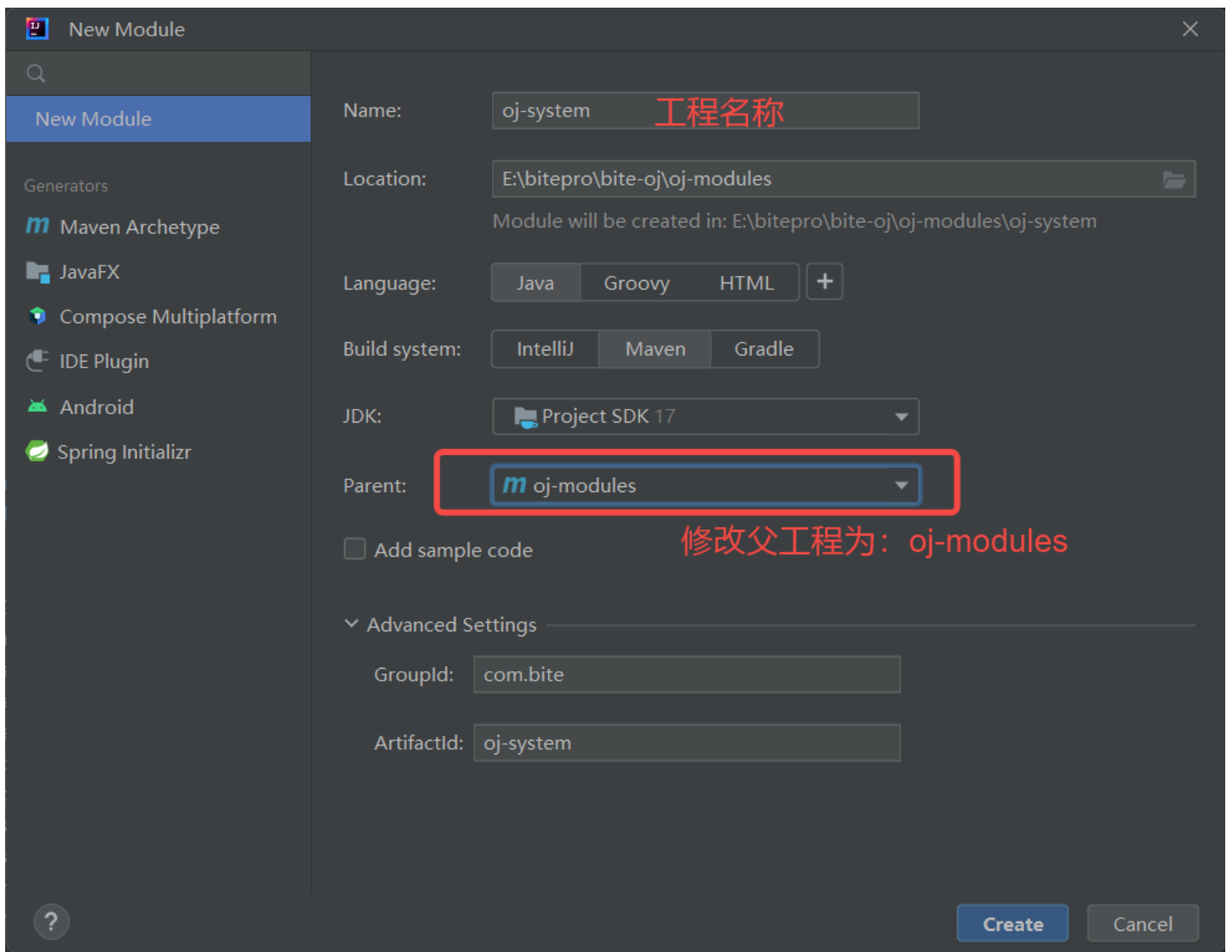
```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <project xmlns="http://maven.apache.org/POM/4.0.0"
3           xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
4           xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
5 http://maven.apache.org/xsd/maven-4.0.0.xsd">
6   <parent>
7     <artifactId>bite-oj</artifactId>
8     <groupId>com.bite</groupId>
9     <version>1.0-SNAPSHOT</version>
10  </parent>
11  <modelVersion>4.0.0</modelVersion>
12  <artifactId>oj-modules</artifactId>
13  <packaging>pom</packaging>
14  <modules>
15    <module>oj-system</module>
16  </modules>
17
```

```

18     <properties>
19         <maven.compiler.source>17</maven.compiler.source>
20         <maven.compiler.target>17</maven.compiler.target>
21     </properties>
22
23     <dependencies>
24         <dependency>
25             <groupId>org.springframework.boot</groupId>
26             <artifactId>spring-boot-starter-web</artifactId>
27         </dependency>
28     </dependencies>
29
30 </project>

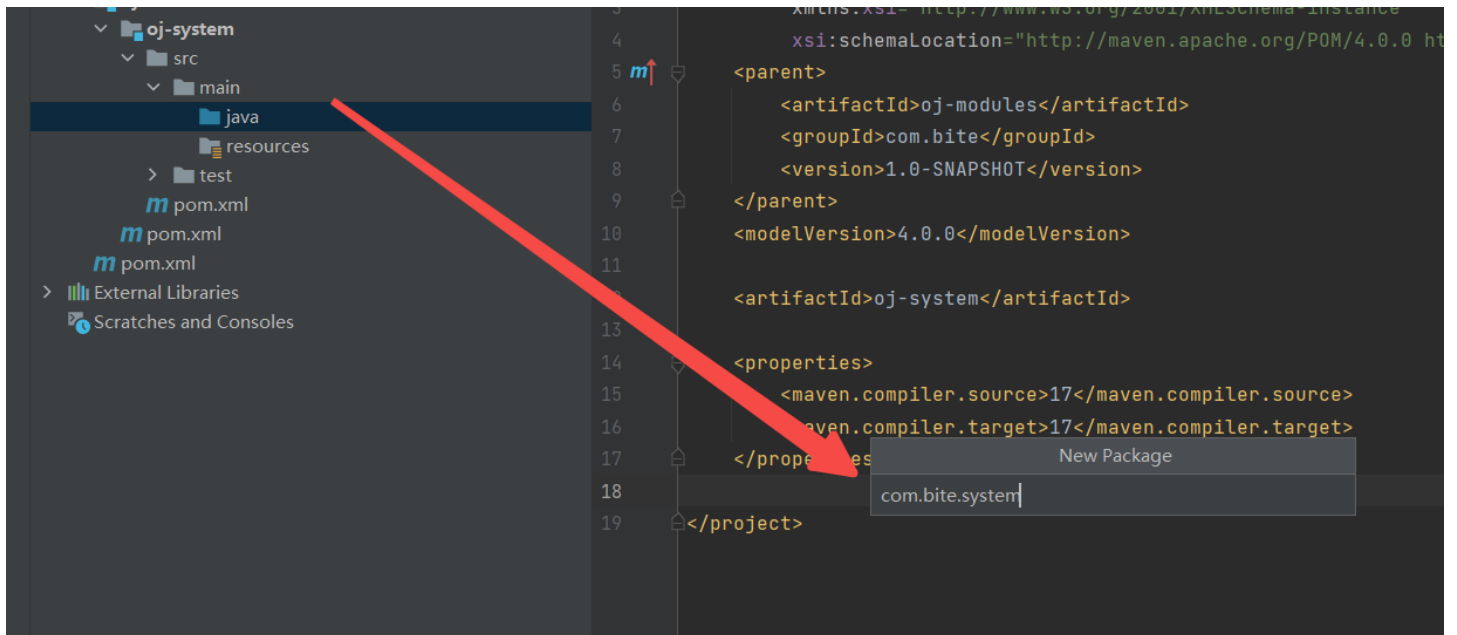
```

创建微服务工程（以oj-system为例）：

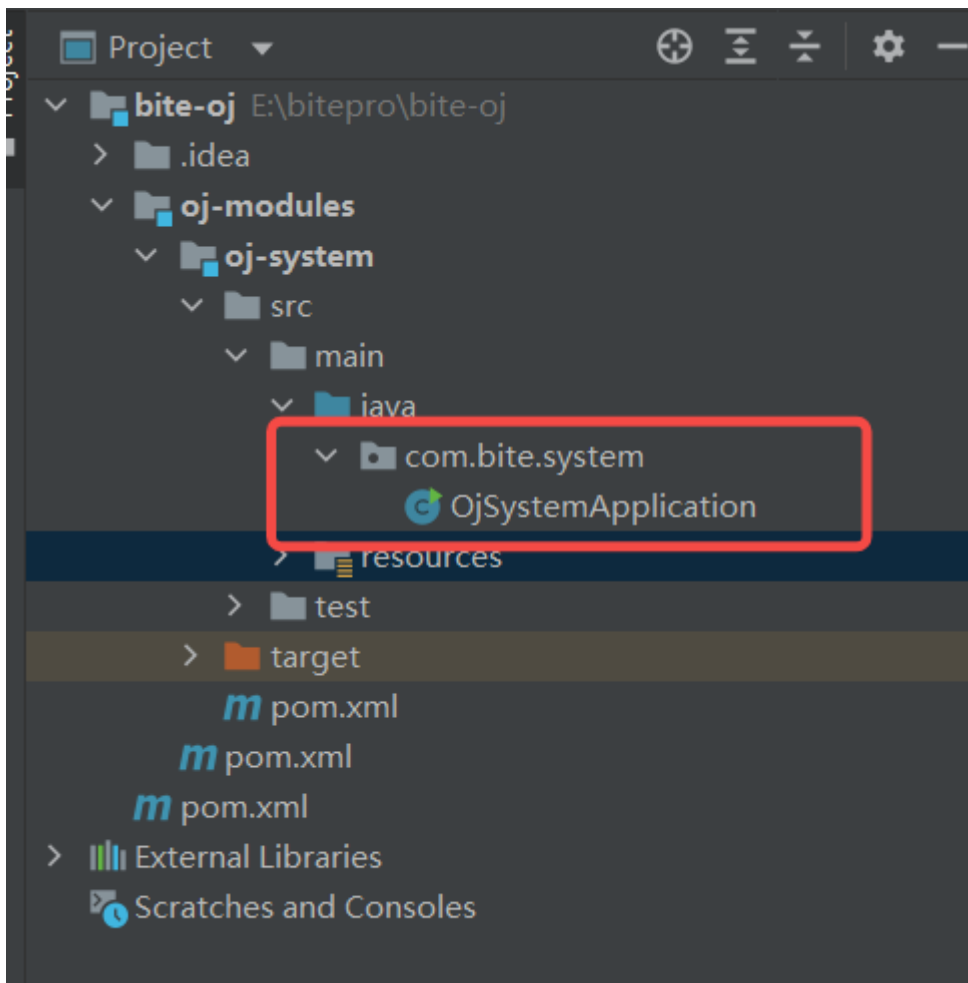


- 右键java，创建package

创建com.bite.system包。



- 创建启动类:



```
1 package com.bite.system;
2
3 import org.springframework.boot.SpringApplication;
4 import org.springframework.boot.autoconfigure.SpringBootApplication;
5
6 @SpringBootApplication
```

```
7 public class OjSystemApplication {
8
9     public static void main(String[] args) {
10         SpringApplication.run(OjSystemApplication.class, args);
11     }
12 }
```

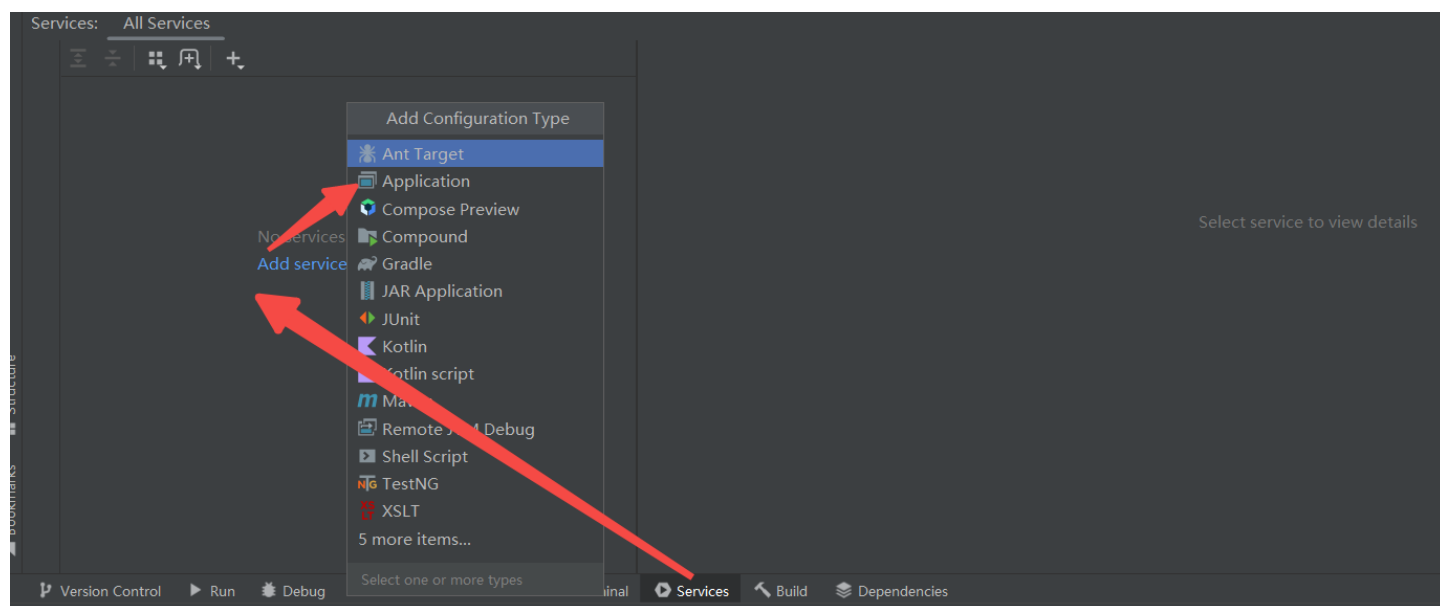
- 创建bootstrap.yml文件

```
1 server:
2   port: 9201
3   # Spring
4   spring:
5     application:
6       # 应用名称
7       name: oj-system
```

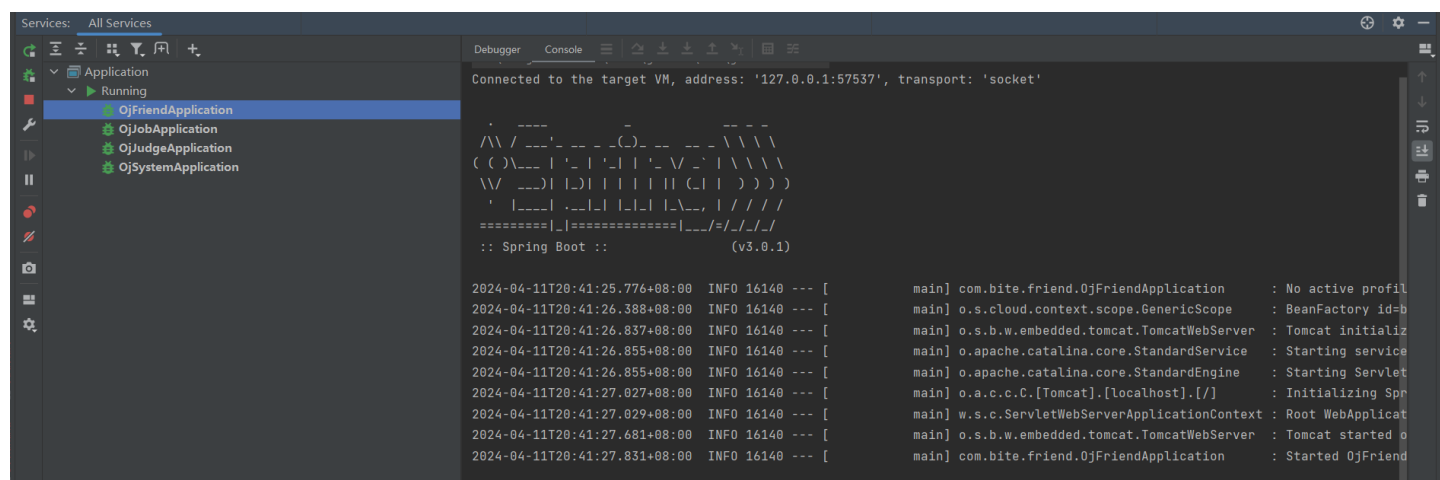
依次创建微服务

其它几个微服务用类似方法依次建好。但需要注意bootstrap.yml文件中的server.port和application.name需要修改为不同的端口号和服务名称。

- 创建service，便于对所有微服务统一管理



- 所有微服务一键启动效果：



推送至码云

码云上创建空仓库



新建仓库

在其他网站已经有仓库了吗? [点击导入](#)

仓库名称 * ✓

bite-oj

归属

Ant_o_liu

路径 * ✓

bite-oj

仓库地址: https://gitee.com/Ant_o_liu/bite-oj

仓库介绍

0/100

用简短的语言来描述一下吧

☐ 开源 (所有人可见) ②

看自身情况

☒ 私有 (仅仓库成员可见)

- ☐ 初始化仓库 (设置语言、.gitignore、开源许可证)
- ☐ 设置模板 (添加 Readme、Issue、Pull Request 模板文件)
- ☐ 选择分支模型 (仓库创建后将根据所选模型创建分支)

不要选

创建

本地仓库推送至远程

码云上创建项目成功后, 会出现下面提示, 我们可以根据码云给出的提示将代码仓库推送至远程。

快速设置— 如果你知道该怎么操作, 直接使用下面的地址

HTTPS

SSH

https://gitee.com/Ant_o_liu/bite-oj.git

我们强烈建议所有的git仓库都有一个 README, LICENSE, .gitignore 文件

[初始化 readme 文件](#)

Git入门? 查看 [帮助](#), Visual Studio / TortoiseGit / Eclipse / Xcode 下如何连接本站, 如何导入仓库

简易的命令行入门教程:

Git 全局设置:

```
git config --global user.name "Ant_o_liu"
git config --global user.email "46104336@qq.com"
```

创建 git 仓库:

```
mkdir bite-oj
cd bite-oj
git init
touch README.md
git add README.md
git commit -m "first commit"
git remote add origin https://gitee.com/Ant_o_liu/bite-oj.git
git push -u origin "master"
```

已有仓库?

```
cd existing_git_repo
git remote add origin https://gitee.com/Ant_o_liu/bite-oj.git
git push -u origin "master"
```

因为我们已经创建了工程和一些核心文件, 所以需要对上面给出的提示做出一定的调整 (git add README.md 改为 git add .) , 如下:

```
1 git init
2
3 git add .
4
5 git commit -m "first commit"
6
7 git remote add origin https://gitee.com/Ant_o_liu/bite-oj.git
8
9 git push -u origin "master"
```

- 直接在idea的终端执行：



```
Terminal: Local + v
PS E:\bitepro\bite-oj> git init
Reinitialized existing Git repository in E:\bitepro\bite-oj/.git/
PS E:\bitepro\bite-oj> git add .
warning: in the working copy of 'oj-modules/oj-friend/pom.xml', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'oj-modules/oj-friend/src/main/java/com/bite/friend/OjFriendApplication.java', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'oj-modules/oj-friend/src/main/resources/bootstrap.yml', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'oj-modules/oj-friend/target/classes/bootstrap.yml', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'oj-modules/oj-job/pom.xml', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'oj-modules/oj-job/src/main/java/com/bite/job/OjJobApplication.java', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'oj-modules/oj-job/src/main/resources/bootstrap.yml', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'oj-modules/oj-job/target/classes/bootstrap.yml', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'oj-modules/oj-judge/pom.xml', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'oj-modules/oj-judge/src/main/java/com/bite/judge/OjJudgeApplication.java', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'oj-modules/oj-judge/src/main/resources/bootstrap.yml', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'oj-modules/oj-judge/target/classes/bootstrap.yml', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'oj-modules/oj-system/pom.xml', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'oj-modules/oj-system/src/main/resources/bootstrap.yml', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'oj-modules/oj-system/target/classes/bootstrap.yml', LF will be replaced by CRLF the next time Git touches it
```

- 推送完成验证结果

master

分支 1 标签 0

克隆/下载

 first commit c3e5341 5分钟前	1 次提交
 .idea first commit	5分钟前
 oj-modules first commit	5分钟前
 pom.xml first commit	5分钟前

README



添加 README

添加一个 README.md 文件，帮助感兴趣的人了解。

添加 README