使用idea对spring framework源码debug

说明：请严格按照几个版本来搭建环境，否则可能会编译不了发生各种问题。

1、版本

spring framework 5.3.10 [重要]

IntelliJ IDEA 2020.2.4

gradle-6.9.1 [重要]

jdk-11.0.15 [重要]

2、下载地址

spring framework 5.3.10

```
1  # https://gitee.com/ellisonpei/spring-framework-5.3.10.git
```

gradle-6.9.1

```
1  # https://downloads.gradle-dn.com/distributions/gradle-6.9.1-bin.zip
```

jdk-11.0.15

```
1  # https://www.oracle.com/java/technologies/javase/jdk11-archive-
   downloads.html
2  #
   https://download.oracle.com/otn/java/jdk/11.0.15+8/c4e1848573124815b77d6f1843
   afccb5/jdk-11.0.15_windows-x64_bin.zip?
   AuthParam=1652338291_536e45373fe4d93c52990401b07068df
```

3、搭建步骤

3.1、配置环境变量

- 配置jdk11、gradle6.9.1环境变量（略）
- 验证版本

```
D:\>java -version
java version "11.0.15" 2022-04-19 LTS
Java(TM) SE Runtime Environment 18.9 (build 11.0.15+8-LTS-149)
Java HotSpot(TM) 64-Bit Server VM 18.9 (build 11.0.15+8-LTS-149, mixed mode)
```

```
D:\>gradle -v

------------------------------------------------------------
Gradle 6.5.1
------------------------------------------------------------

Build time:   2020-06-30 06:32:47 UTC
Revision:     66bc713f7169626a7f0134bf452abde51550ea0a

Kotlin:       1.3.72
Groovy:       2.5.11
Ant:          Apache Ant(TM) version 1.10.7 compiled on September 1 2019
JVM:          11.0.15 (Oracle Corporation 11.0.15+8-LTS-149)
OS:           Windows 11 10.0 amd64
```

3.2、对代码进行预编译

```
1  # gradlew spring-oxm:compileTestJava
```

如有错，解决错误，最终要成功，这是前提。

3.3、把build.gradle导入idea

```
1  # File -> New -> Project from Existing Sources -> Navigate to directory ->
    Select build.gradle
```

这块是最耗时的，只需等待。

3.4、排除掉 spring-aspects 模块配置

在**settings.gradle**文件中把 **include "spring-aspects"** 注释掉

3.5、在spring-core模块中创建测试类进行debug

UserService.java

```
1  package com.mangxiao;
2  public class UserService {
3
4      public UserService(){
5          System.out.println("UserService init ....");
6      }
7  }
```

AppConfig.java

```java
package com.mangxiao;

import org.springframework.beans.factory.annotation.Configurable;
import org.springframework.context.annotation.Bean;

@Configurable
public class AppConfig {
    @Bean
    private UserService user() {
        return new UserService();
    }
}
```

BeanTest.java

```java
package com.mangxiao;
import org.springframework.context.annotation.AnnotationConfigApplicationContext;
public class BeanTest {
    public static void main(String[] args) {
        AnnotationConfigApplicationContext applicationContext = new
AnnotationConfigApplicationContext(AppConfig.class);
        UserService serviceService =
applicationContext.getBean(UserService.class);
        System.out.println(serviceService);
    }
}
```