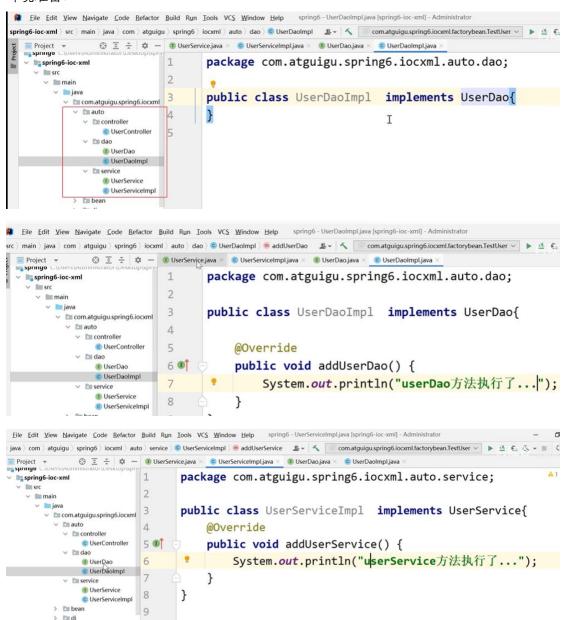
实验 13: 基于 xml 的自动装配

自动装配:根据指定的策略,在 IOC 容器中匹配某一个 bean,自动为指定的 bean 中所依赖的类类型或接口类型属性赋值



环境准备:



```
🚇 Eile Edit View Navigate Code Befactor Build Run Iools VCS Window Help 💮 spring6 - UserController.java [spring6-ioc-xml] - Administrator
c ) main ) java ) com ) atguigu ) spring6 ) iocxml ) auto ) controller ) 🖲 UserController ) 🖷 addUser 🛮 👢 🔍 🥌 com.atguigu.spring6.iocxmLfactorybean.TestUser 🗸 🕨 🎎 🐔 🗞 🗢
                                                                         😌 🚊 🛱 🗘 – 📵 UserServicejava × 🕲 UserServicelmpl.java × 🕲 UserController.java × 🕲 UserDao.java × 🕲 UserDao.java
                                                                                                                                    1
                                                                                                                                                                     package com.atguigu.spring6.iocxml.auto.controller;
                spring6-ioc-xml
                    ∨ listc
                           ∨ I main

√ iava

java

                                                                                                                                                                    public class UserController {
                                            ∨ com.atguigu.spring6.iocxml 3
                                                   v 🛅 auto
                                                                                                                                  4

√ □ controller

                                                                        UserController 5
                                                                                                                                                                                             public void addUser() {
                                                                                                                                                                                                                     System.out.println("controller方法执行了.");
                                                                             UserDao

∨ E service

                                                                             UserService
                                                                                                                              8
                                                                                                                                                                     }
                                                                             UserServiceImpl
                                                          bean
                                                    > 🛅 di
                                                          dimap
                                                    > material factorybean
```

原始方法:

```
📕 Eile Edit View Navigate Code Betactor Build Run Lools VCS Window Help — springb - UserController.Java [springb-loc-xmi] - Administra
   main \ java \ com \ atguigu \ spring6 \ iocxml \ auto \ controller \ @ UserController \ @ addUser \ 🚁 🔨 🦷 com.atguigu.spring6.iocxml.factor
    ⑤ UserService.java × ⑤ UserServiceImpl.java × ⑥ UserController.java × ⑤ UserDao.java × ⑥ UserDaoImpl.java
            import com.atguigu.springb.locxml.auto.service.userservice
    4
            import com.atguigu.spring6.iocxml.auto.service.UserService
    5
            public class UserController {
    6
                 public void addUser() {
    8
                      System.out.println("controller方法执行了...");
    9
                      UserService userService = new UserServiceImpl();
   10
                      useFService.addUserService();
   11
   12
                 }
   13
            }
   File Edit View Navigate Code Refactor Build Run Tools VCS Window Help spring6 - UserServiceImpl.java [spring6-ioc-xml] - Admini
nain ) java ) com ) atguigu ) spring6 ) iocxml ) auto ) service ) © UserServiceImpl ) 🖷 addUserService 🔉 🤸 🥛 com.atguigu.spring6.iocxml.fac
  5
           2 usages
           public class UserServiceImpl implements UserService{
                 1 usage
                @Override
                public void addUserService() {
   8 1
                      System.out.println("userService方法执行了...");
   9
                      UserDao userDao = new UserDaoImpl();
  10
  11
                      userDao.addUserDao();
  12
                 }
           }
  13
```

通过配置完成自动装配:

准备:

```
File Edit View Navigate Code Refactor Build Run Jools VCS Window Help spring6 - UserController.java [spring6-ioc-xml] - Administrator
rc > main > java > com > atguigu > spring6 > iocxml > auto > controller > ® UserController > ® addUser 🙎 🗸 🦱 com.atguigu.spring6.iocxml.factorybean.Test
      ⑤ UserService.java × ⑤ UserServiceImpl.java × ⑤ UserController.java × ⑥ UserDao.java × ⑥ UserDaoImpl.java × ⑥ 
                                          2 usages
                                          private UserService userService;
                                          public void setUserService(UserService userService) {
        9
                                                       this.userService = userService;
      10
      11
      12
                                         public void addUser() {
      13
                                                        System.out.println("controller方法执行了...");
     14
                                                       //调用service的方法
     15
                                                       userService.addUserService();
      16
                                                              UserService userService = new UserServiceImpl();
     17
                            11
                                                              userService.addUserService();
     18
      19
                                          }
     20
   🚇 File Edit View Navigate Code Refactor Build Run Iools VCS Window Help spring6 - UserServiceImpl.java [spring6-ioc-xml] - Administrator
  ain ) java ) com | atguigu ) spring6 ) iooxml | auto | service | © UserServiceImpl ) = addUserService 👢 - 🔨 📉 com.atguigu.spring6.iooxml.factorybean.TestUser 🗸 🕨
      🕦 UserService.java × 🧧 UserServiceImpl.java × 🏮 UserController.java × 🅦 UserDao.java × 💲 UserDaolmpl.java ×
                           1 usage
                           public class UserServiceImpl implements UserService{
                                        2 usages
                                        private UserDao userDao;
                                        public void setUserDao(UserDao userDao) {
         9
      10
                                                    this.userDao = userDao;
      11
      12
                                        1 usage
                                        @Override
      13
                                        public void addUserService() {
      14 1
                                                    System.out.println("userService方法执行了...");
      15
                                                   userDao.addUserDao();
      16
之前的方法:
```

```
☐ File Edit View Navigate Code Refactor Build Run Jools VCS Window Help spring6 - bean-autoxml [spring6-ioc-xml] - Administrator
spring6 > spring6-ioc-xml > src > main > resources > 👼 bean-auto.xml
                                                 © UserController.java × 🐧 UserDao.java × 🌀 UserDaoImpl.java ×
 <?xml version="1.0" encoding="UTF-8"?>
  1
       <beans xmlns="http://www.springframework.org/schema/beans"</pre>
                xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  4
              xsi:schemaLocation="http://www.springframework.org/schema/beans http://www
  5
             <bean id="userController" class="com.atguigu.spring6.iocxml.auto.controller.Uge"</pre>
  6
                property name="userService" ref="userService"></property>
  8
             </bean>
             <bean id="userService" class="com.atguigu.spring6.iocxml.auto.service.UserSer</pre>
  9
 10
 11
12
             <bean id="userDao" class="com.atguigu.spring6.iocxml.auto.dao.UserDaoImpl">
 13
14
        </beans>
```

基于类型自动装配:

```
File Edit View Navigate Code Refactor Build Run Jools VCS Window Help spring6 - bean-auto.xml [spring6-ioc-xml] - Administrator
spring6 > spring6-ioc-xml > src > main > resources > 🚜 bean-auto.xml

    UserService.java × © UserServiceImpl.java

                   ServiceImpLjava × 🍰 bean-auto.xml × 🥞 TestUserjava × 💲 UserControllerjava × 🕦 UserDaojava × 🕦 UserDaompLjava × xmlns:xSi= nttp://www.w3.org/2001/スハルL>cnema-instance
  4
              xsi:schemaLocation="http://www.springframework.org/schema/beans http://www
               <bean id="userController" class="com.atguigu.spring6.iocxml.auto.controller.U"</pre>
  8
                       autowire="byType">
  9
               </bean>
 10
               <bean id="userService" class="com.atguigu.spring6.iocxml.auto.service.UserSer</pre>
 11
                      autowire="byType">
 12
               </bean>
 13
               <bean id="userDao" class="com.atguigu.spring6.iocxml.auto.dao.UserDaoImpl">
14
15
               </bean>
 16
        ≙</beans>
```

基于名称自动装配:

②配置bean

```
使用bean标签的autowire属性设置自动装配效果自动装配方式: byType byType: 根据类型匹配IOC容器中的某个兼容类型的bean, 为属性自动赋值 若在IOC中,没有任何一个兼容类型的bean能够为属性赋值,则该属性不装配,即值为默认值null 若在IOC中,有多个兼容类型的bean能够为属性赋值,则抛出异常NoUniqueBeanDefinitionException <!--根据名称自动装配-->
```

```
<!--根据名称自动装配-->
<bean id="userController" class="com.atguigu.spring6.iocxml.auto.controller.UserService" byName">
</bean id="userService" class="com.atguigu.spring6.iocxml.auto.service.UserService" autowire="byName">
</bean>
</bean>
<br/>
<
```

测试:

```
File Edit View Navigate Code Refactor Build Run Tools VCS Window Help spring6 - TestUser.java [spring6-ioc-xml] - Administrator
spring6-loc-xml | src | main | Java | com | atguigu | spring6 | iocxml | auto | df TestUser | jii main | 🎉 + 🔨 📗 com.atguiguspring6 | iocxml.factorybean.TestUser 🗸 🕨 🛝 📞 🔆 + 🔳 🔘 🛟
          rejava × © UserServiceImpljava × ይ bean-auto.xml × 🥞 TestUserjava × © UserControllerjava × 📵 UserDaojava × © UserDaolmpljav
rt com.atguigu.springb.iocxmi.auto.coatroller.UserController;
   4
            rt org.springframework.context.ApplicationContext;
          rt org.springframework.context.support.ClassPathXmlApplicationContext;
   6
   7
          ic class TestUser {
   8
   9
         public static void main(String[] args) {
  10
                 ApplicationContext context =
                            new ClassPathXmlApplicationContext( configLocation: "bean-auto.xml");
  11
                 UserController = context.getBean( name: "userController", UserContr
  12
  13
                 controller.addUser();
¥ 14
        15
```

