实验 7: 为集合类型属性赋值

- 1) 为 list 集合类型属性赋值
- 2) 为 map 集合类型属性赋值
- 3) 引用集合类型的 bean

环境配置:

```
🚇 Eile Edit View Navigate Code Refactor Build Run Iools VCS Window Help spring6 - Dept.java [spring6-ioc-xml] - Administrator
                                                                                                         ♣ TestEmp ∨
\textbf{spring6} \  \  \, \textbf{spring6-ioc-xml} \  \  \, \textbf{src} \  \  \, \textbf{main} \  \  \, \textbf{java} \  \  \, \textbf{com} \  \  \, \textbf{atguigu} \  \  \, \textbf{spring6} \  \  \, \textbf{iocxml} \  \  \, \textbf{ditest} \  \  \, \textbf{@} \  \, \textbf{Dept} \  \  \, \textbf{@} \  \, \textbf{mpList}
  © Emp.java × © Dept.java ×
   6
             public class Dept {
                    //一个部门有很多员工
   8
                    private List<Emp> empList;
                                                                                  生成get set方法
   9
 10
                    3 usages
                    private String dname;
 11
🚇 Eile Edit Yiew Navigate Code Refactor Build Run Iools VCS Window Help 💮 spring6 - Dept.Java (spring6-ioc-xml) - Administrator
spring6 | spring6-ioc-xml | src | main | java | com | atguigu | spring6 | iocxml | ditest | © Dept | @ info
                                                                                                               ♣ ✓ TestEmp
 © Emp.java × © Dept.java
                            return empList;
 21
 22
                     }
 23
                     public void setEmpList(List<Emp> empList) {
 24
                            this.empList = empList;
 25
 26
 27
                     1 usage
 28
                     public void info() {
                            System.out.println("部门名称: "+dname);
 29
                            for (Emp emp:empList) {
 30
                                   System.out.println(emp.getEname());
 31
 32
                            }
 33
                     }
 34
```

1、为 list 集合类型属性赋值

```
Xmins:XSI≡ nttp://www.ws.org/2001/XmlScnema-instance
  4
                                       xsi:schemaLocation="http://www.springframework.org/schema/beans http://www.springframework.org/schema/beans ht
  5
                               <bean id="empone" class="com.atguigu.spring6.iocxml.ditest.Emp">
  6
                                          cproperty name="ename" value="lucy"></property>
  7
                                           cproperty name="age" value="20"></property>
  8
  9
                               </bean>
10
                               <bean id="emptwo" class="com.atguigu.spring6.iocxml.ditest.Emp">
                                          cproperty name="ename" value="mary"></property>
11
                                          cproperty name="age" value="30"></property>
12
                               </bean>
13
14
                               <bean id="dept" class="com.atguigu.spring6.iocxml.ditest.Dept">
15
16
                                     cproperty name="dname" value="技术部"></property>
                                    cproperty name="empList">
17
18
                                                       t>
19
                                                                  <ref bean="empone"></ref>
20
                                                                  <ref bean="emptwo"></ref>
21
                                                       </list>
22
                                     </property>
23
                                </bean>
24
                   </beans>
测试:
  # File Edit View Navigate Code Refactor Build Run Iools VCS Window Help spring6 - TestDept.java [spring6-ioc-xml] - Administrator
  spring6 | spring6-ioc-xml | src | main | java | com | atguigu | spring6 | iocxml | ditest | © TestDept | @ main
                                                                                                                                                                 # - | S | TestEmp ∨ | ▶ ± € € € + | | Q € €
© Emp.java × © TestDept.java × ♣ bean-dilist.xml ×
                      package com.atguigu.spring6.iocxml.ditest;
     1
      2
                     import ...
       3
      5
      6
                      public class TestDept {
      7
      8
                                public static void main(String[] args) {
      9
                                          ApplicationContext context =
    10
                                                               new ClassPathXmlApplicationContext( configLocation: "bean-dilist.xml
    11
                                          Dept dept = context.getBean( name: "dept", Dept.class);
    12
13
                                          dept.info();
   14
15
16
                      }
```

环境搭建:

```
File Edit Yiew Navigate Code Refactor Build Run Tools VCS Window Help spring6 - Student java [spring6-ioc-xml] - Administrator
                                                                                                                                                                                                                                                                                                                                                                                                                  spring6 | spring6-ioc-xml | src | main | java | com | atguigu | spring6 | iocxml | dimap | © Student | main | main | spring6 | iocxml | dimap | © Student | main | 
                  ■ Project ▼ ② Ξ ÷ ⇔ — © Studentjava × © Teacher.java × № Teacher.java × № Studentjava × © Teacher.java × © Teacher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A6 ±4 ^ ∨
                                                                                                                                                           3
                                                                                                                                                                                                 public class Student {
                        ∨ spring6-ioc-xml
                                                                                                                                                             4
                                                                                                                                                                                                                              3 usages
                                                    ∨ ijava
                                                            ∨ 🖿 com.atguigu.spring6.iocxm
                                                                                                                                                                                                                               private String sid;
                                                                            bean bean
                                                                     > 🛅 di
                                                                                                                                                                                                                              3 usages
                                                           © Student
© Teacher
                                                                                                                                                             6
                                                                                                                                                                                                                              private String sname;
                                                   > Imresources
                                                                                                                                                             8
                                                                                                                                                                                                                               public void run() {
                                           > limitest
                               > target
                                                                                                                                                                                                                                                          System.out.println("学生编号: "+sid+
                                                                                                                                                             9
                                         m pom.xml
                      > spring-first
                                                                                                                                                                                                                                                                       "学生名称: "+sname);
                                                                                                                                                           10
               > III External Libraries
                                                                                                                                                           11
                                                                                                                                                                                                                               }
                      Scratches and Consoles
                                                                                                                                                           12
                                                                                                                                                                                                                                public String getSid() {
                                                                                                                                                           13
                                                                                                                                                                                                                                                        return sid;
                                                                                                                                                           14
                                                                                                                                                           15
                                                                                                                                                                                                                               public void setSid(String sid) {
                 中°, å
Bile Edit View Navigate Code Refactor Build Run Tools VCS Window Help spring6 - Student, java [spring6-ioc-xml] - Administrator
spring6 > spring6-loc-xml > src > main > java > com > atguigu > spring6 > locxml > dimap > © Student
                                                                                                                                                                                                                                                                                                                                                                                                                  # - < TestDept > ▶ ± € € - □ Q 6
```

```
■ Project 

③ ③ ③ ③ ★ □ ◆ ─ ⑤ Student.java × ⑥ Teacher.java × □ spring6 C\Users\Administrator\Desktop\sp
                                                                                                                  A8 ×4 ^ v
   spring6-ioc-xml
                               5
                                       public class Student {
      ∨ 🗎 main
                               6

∨ Image: com.atguigu.spring6.iocxm

                                             3 usages
           > Di bean
                               7
                                             private Map<\ftring,Teacher> teacherMap;
            ∨ 🗀 dimap
               © Student
            > Teacl
        > lim resources
                                             private String sid;
   > matarget
                                             3 usages
      m pom.xml
  > spring-first
                              10
                                             private String sname;
                             11
 Scratches and Consoles
                              12
                                             public void run() {
                                                  System.out.println("学生编号: "+sid+ "学生名称: "+sn
                              13
                              14
                                                  System.out.println(teacherMap);
                             15
```

2、为 map 集合类型属性赋值

```
spring6-ioc-xml ) src ) main ) resources ) 🝰 bean-dimap.xml
                                                               B + < TestDept > ▶ ± € € + □ C.
tudent.java × 🍰 bean-dimap.xml × 🔹 Teacher.java × エ 型 建 州 インリ 承
                                                                                   01 ▲9 ±12 △
             2 注入普通类型属性
             3 在学生bean注入map集合类型属性
         <bean id="teacherone" class="com.atguigu.spring6.iocxml.dimap.Teacher">
             <!--注入普通类型属性-->
              cproperty name="teacherId" value="100"></property>
              cproperty name="teacherName" value="西门讲师"></property>
         </bean>
         <bean id="teachertwo" class="com.atguigu.spring6.iocxml.dimap.Teacher">
             <!--注入普通类型属性-->
              cproperty name="teacherId" value="200"></property>
              <property name="teacherName" value="上官讲师"></property>
         </bean>
```

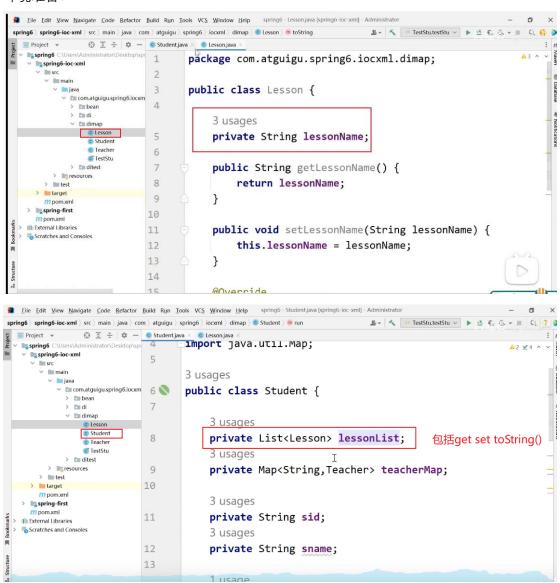
```
<!--注入普通类型属性-->
        cproperty name="sid" value="2000"></property>
        cproperty name="sname" value="张三"></property>
         <!--在学生bean注入map集合类型属性-->
        cproperty name="teacherMap">
             <map>
                 <entry>
                      <key>
                          <value>10010</value>
                      </key>
                      <ref bean="teacherone"></ref>
                 </entry>
                 <entry>
                      <key>
ıva × 🊜 bean-dimap.xml × 🌀 Teacher.java >
                       </entry>
                       <entry>
                                  <value>10086</value>
                             <ref bean="teachertwo"></ref>
                       </entry>
                  </map>
            </property>
       </bean>
 </beans>
测试:

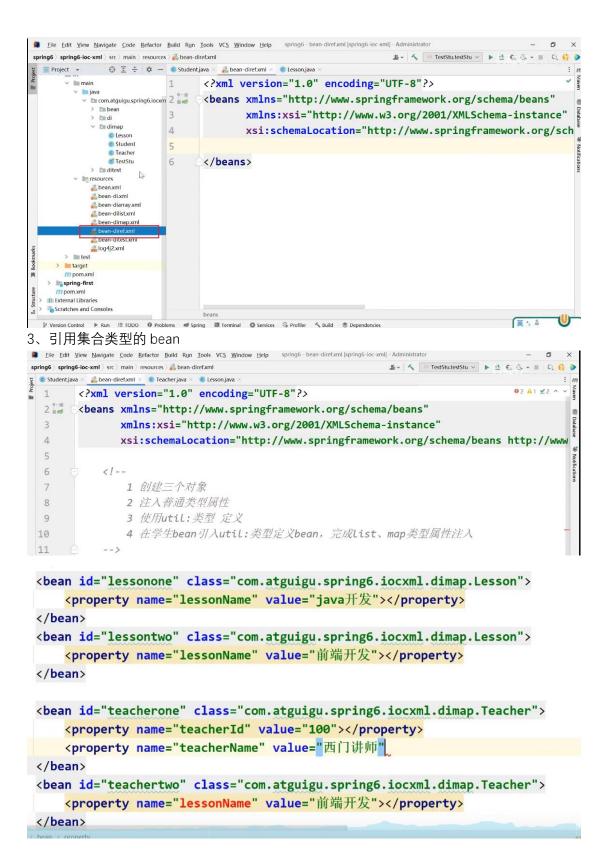
<u>★ File Ldit View Navigate Code Retactor Build Run Lools VC</u>
<u>York Mindow Help</u>

spring6 > spring6-ioc-xml > src > main > java > com > atguigu > spring6 > iocxml | dimap > @ TestStu > @ * testStu
                                                           © Student.java × © TestStu.java × Вean-dimap.xml × © Teacher.java
       import org.junit.jupiter.api.Test;
       import org.springframework.context.ApplicationContext;
 5
       import org.springframework.context.support.ClassPathXmlApplicationContext;
 6
 7 >>
       public class TestStu {
 8
 9
           @Test
 10
           public void testStu() {
 11
               ApplicationContext context =
                       new ClassPathXmlApplicationContext(configLocation: "bean-dimap.xm
 12
               Student student = context.getBean( name: "student", Student.class);
 13
14
15
```

```
2022-12-13 09:39:28 075 [main] DEBUG org.springframework.beans.factory.xm]
2022-12-13 09:39:28 116 [main] DEBUG org.springframework.beans.factory.sup
2022-12-13 09:39:28 167 [main] DEBUG org.springframework.beans.factory.sup
2022-12-13 09:39:28 168 [main] DEBUG org.springframework.beans.factory.sup
```

环境准备:





引用约束. 增加命名空间:

```
Student.java × 🌀 TestStu.java × 🚜 bean-diref.xml × 💿 Teacher.java × 💿 Lesson.java
    <?xml version="1.0" encoding="UTF-8"?>
                                                                            A 18 € 24 ^
  <beans xmlns="http://www.springframework.org/schema/beans"</pre>
           xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xmlns:util="http://www.springframework.org/schema/util"
          xsi:schemaLocation="http://www.springframework.org/schema/util
           http://www.springframework.org/schema/util/spring-util.xsd
           http://www.springframework.org/schema/beans
           http://www.springframework.org/schema/beans/spring-beans.xsd">
        <!--
            1 创建三个对象
            2 注入普通类型属性
            3 使用util:类型 定义
            4 在学生bean 引入util:类型定义bean,完成list、map类型属性注入
 <bean id="student" class="com.atguigu.spring6.iocxml.dimap.Student">
      cproperty name="sid" value="10000"></property>
      cproperty name="sname" value="lucy"></property>
      <!-- 注入List, map 类型属性-->
      cproperty name="lessonList" ref="lessonList"></property>
      cproperty name="teacherMap" ref="teacherMap">
 </bean>
                                                      Ι
 <util:list id="lessonList">
      <ref bean="lessonone"></ref>
      <ref bean="lessontwo"></ref>
 </util:list>
 <util:map id="teacherMap">
      <entry>
          <key>
               <value>10010</value>
          </kev>
          <ref bean="teacherone"></ref>
      </entry>
      <entry>
          <key>
               <value>10086</value>
          </key>
          <ref bean="teachertwo"></ref>

    ★teachertwo (bean-diref.x... Teacher)

      </entry>
                     Ctrl+向下额头 and Ctrl+向上额头 will move caret down and up in the editor Next Tip
 </util:map>
```