1.import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

public class SpringQuestion1

{

@SuppressWarnings("unused")

private static ApplicationContext context;

public static void main(String[] args)

{

@SuppressWarnings("resource")

ApplicationContext context = new ClassPathXmlApplicationContext("file:src/main/resources/Addressbean.xml");

Customer customer = (Customer)context.getBean("Customer");

System.out.println(customer);

}

}

Address.java

package Spring\_Core;

public class Address

{

private String city, street, state, country;

private int zip;

public String getCity()

{

return city;

}

public void setCity(String city)

{

this.city = city;

}

public String getStreet()

{

return street;

}

public void setStreet(String street)

{

this.street = street;

}

public String getState()

{

return state;

}

public void setState(String state)

{

this.state = state;

}

public String getCountry()

{

return country;

}

public void setCountry(String country)

{

this.country = country;

}

public int getZip()

{

return zip;

}

public void setZip(int zip)

{

this.zip = zip;

}

}

AddressBean.xml

<beans xmlns = "http://www.springframework.org/schema/beans"

xmlns:xsi = "http://www.w3.org/2001/XMLSchema-instance"

xsi:schemaLocation="http://www.springframework.org/schema/beans

http://www.springframework.org/schema/beans/spring-beans-3.0.xsd">

<bean id = "Address" class = "Spring\_Core.Address">

<property name = "zip" value = "221"/>

<property name = "city" value = "London"/>

<property name = "street" value = "Baker Street"/>

<property name = "state" value = "World"/>

<property name = "country" value = "England"/>

</bean>

<bean id = "Customer" class = "Spring\_Core.Customer">

<property name = "customerId" value = "123"/>

<property name = "customercontact" value = "123456"/>

<property name = "customerAddress" ref = "Address"/>

<property name = "customerName" value = "Sherlock Holmes"/>

</bean>

</beans>

Customer.java

package Spring\_Core;

public class Customer

{

private int customerId;

private int customercontact;

private String customerName;

private Address customerAddress;

public int getCustomerId()

{

return customerId;

}

public void setCustomerId(int customerId)

{

this.customerId = customerId;

}

public int getCustomercontact()

{

return customercontact;

}

public void setCustomercontact(int customercontact)

{

this.customercontact = customercontact;

}

public Address getCustomerAddress()

{

return customerAddress;

}

public void setCustomerAddress(Address customerAddress)

{

this.customerAddress = customerAddress;

}

public String getCustomerName()

{

return customerName;

}

public void setCustomerName(String customerName)

{

this.customerName = customerName;

}

public String toString()

{

return "Customer Id: "+getCustomerId()+ ", Customer Contact: "+getCustomercontact()+ ", Customer Address: {City: "+getCustomerAddress().getCity()+", Street: "+getCustomerAddress().getStreet()+", State: "+getCustomerAddress().getState()+", Country: "+getCustomerAddress().getCountry()+", Zip: "+getCustomerAddress().getZip()+"}, Customer Name: "+getCustomerName();

}

}

For Constructor Main Class SpringQuestion1Test

package Spring\_Core;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

public class SpringQuestion1

{

@SuppressWarnings("unused")

private static ApplicationContext context;

public static void main(String[] args)

{

@SuppressWarnings("resource")

ApplicationContext context1 = new ClassPathXmlApplicationContext("file:src/main/resources/Customer.xml");

Customer customer2 = (Customer)context1.getBean("Customer1");

System.out.println(customer2);

}

}

For Constructor Address.java

package Spring\_Core;

public class Address

{

private String city, street, state, country;

private int zip;

public String getCity()

{

return city;

}

public void setCity(String city)

{

this.city = city;

}

public String getStreet()

{

return street;

}

public void setStreet(String street)

{

this.street = street;

}

public String getState()

{

return state;

}

public void setState(String state)

{

this.state = state;

}

public String getCountry()

{

return country;

}

public void setCountry(String country)

{

this.country = country;

}

public int getZip()

{

return zip;

}

public void setZip(int zip)

{

this.zip = zip;

}

public Address(String city, String street, String state, String country, int zip) {

super();

this.city = city;

this.street = street;

this.state = state;

this.country = country;

this.zip = zip;

}

}

For Constructor Customer.java

package Spring\_Core;

public class Customer

{

private int customerId;

private int customercontact;

private String customerName;

private Address customerAddress;

public Customer(int customerId, int customercontact, String customerName, Address customerAddress)

{

this.customerId = customerId;

this.customercontact = customercontact;

this.customerName = customerName;

this.customerAddress = customerAddress;

}

public int getCustomerId()

{

return customerId;

}

public void setCustomerId(int customerId)

{

this.customerId = customerId;

}

public int getCustomercontact()

{

return customercontact;

}

public void setCustomercontact(int customercontact)

{

this.customercontact = customercontact;

}

public Address getCustomerAddress()

{

return customerAddress;

}

public void setCustomerAddress(Address customerAddress)

{

this.customerAddress = customerAddress;

}

public String getCustomerName()

{

return customerName;

}

public void setCustomerName(String customerName)

{

this.customerName = customerName;

}

public String toString()

{

return "Customer Id: "+getCustomerId()+ ", Customer Contact: "+getCustomercontact()+ ", Customer Address: {City: "+getCustomerAddress().getCity()+", Street: "+getCustomerAddress().getStreet()+", State: "+getCustomerAddress().getState()+", Country: "+getCustomerAddress().getCountry()+", Zip: "+getCustomerAddress().getZip()+"}, Customer Name: "+getCustomerName();

}

}

For Constructor Customer.xml

<beans xmlns = "http://www.springframework.org/schema/beans"

xmlns:xsi = "http://www.w3.org/2001/XMLSchema-instance"

xsi:schemaLocation="http://www.springframework.org/schema/beans

http://www.springframework.org/schema/beans/spring-beans-3.0.xsd">

<bean id = "Address" class = "Spring\_Core.Address">

<constructor-arg index = "0" name = "city" type = "java.lang.String" value = "London"/>

<constructor-arg index = "1" name = "street" type = "java.lang.String" value = "Baker Street"/>

<constructor-arg index = "2" name = "state" type = "java.lang.String" value = "World"/>

<constructor-arg index = "3" name = "country" type = "java.lang.String" value = "England"/>

<constructor-arg index = "4" name = "zip" type = "int" value = "221"/>

</bean>

<bean id = "Customer1" class = "Spring\_Core.Customer">

<constructor-arg index = "0" name = "customerId" type = "int" value = "123"/>

<constructor-arg index = "1" name = "customercontact" type = "int" value = "123456"/>

<constructor-arg index = "2" name = "customerName" type = "java.lang.String" value = "Sherlock Holmes"/>

<constructor-arg index = "3" name = "customerAddress" ref = "Address"/>

</bean>

</beans>

Main Class Question2.java

package Spring\_Core;

import static org.junit.jupiter.api.Assertions.\*;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

import org.junit.jupiter.api.Test;

class Question2

{

@SuppressWarnings("unused")

private static ApplicationContext context;

public static void main(String[] args)

{

@SuppressWarnings("resource")

ApplicationContext context = new ClassPathXmlApplicationContext("Coll.xml");

List list = (List) context.getBean("Collections");

System.out.println("List: " + list.getList());

}

}

Question2.java

package Spring\_Core;

public class Question

{

private int questionId;

private String question, answers;

public void setQuestionId(int questionId) {

this.questionId = questionId;

}

public void setQuestion(String question) {

this.question = question;

}

public void setAnswers(String answers) {

this.answers = answers;

}

public String toString()

{

return "Question ID: "+questionId+ ", Questions: "+question+ ", Answers: "+answers+"\n";

}

}

List.java

package Spring\_Core;

import java.util.ArrayList;

import java.util.Map;

import java.util.Set;

public class List

{

private ArrayList<Object> list;

private Set<Object> set;

private Map<Object, Object> map;

public ArrayList<Object> getList() {

return list;

}

public void setList(ArrayList<Object> list) {

this.list = list;

}

public Set<Object> getSet() {

return set;

}

public void setSet(Set<Object> set) {

this.set = set;

}

public Map<Object, Object> getMap() {

return map;

}

public void setMap(Map<Object, Object> map) {

this.map = map;

}

}

Coll.xml

<beans xmlns="http://www.springframework.org/schema/beans"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:p="http://www.springframework.org/schema/p"

xmlns:aop="http://www.springframework.org/schema/aop" xmlns:context="http://www.springframework.org/schema/context"

xmlns:jee="http://www.springframework.org/schema/jee" xmlns:tx="http://www.springframework.org/schema/tx"

xmlns:task="http://www.springframework.org/schema/task" xsi:schemaLocation="http://www.springframework.org/schema/aop http://www.springframework.org/schema/aop/spring-aop-3.2.xsd http://www.springframework.org/schema/beans http://www.springframework.org/schema/beans/spring-beans-3.2.xsd http://www.springframework.org/schema/context http://www.springframework.org/schema/context/spring-context-3.2.xsd http://www.springframework.org/schema/jee http://www.springframework.org/schema/jee/spring-jee-3.2.xsd http://www.springframework.org/schema/tx http://www.springframework.org/schema/tx/spring-tx-3.2.xsd http://www.springframework.org/schema/task http://www.springframework.org/schema/task/spring-task-3.2.xsd">

<bean id="Collections" class="Spring\_Core.List">

<property name="list">

<list>

<ref bean="answers" />

<ref bean="answers1" />

<ref bean="answers2" />

</list>

</property>

</bean>

<bean id="answers" class="Spring\_Core.Question">

<property name="answers" value=”Teja"/>

<property name = "question" value = "What's your name?"/>

<property name = "questionId" value = "123"/>

</bean>

<bean id="answers1" class="Spring\_Core.Question">

<property name="answers" value="Ritu"/>

<property name = "question" value = "What's your name?"/>

<property name = "questionId" value = "456"/>

</bean>

<bean id="answers2" class="Spring\_Core.Question">

<property name="answers" value="Manu"/>

<property name = "question" value = "What's your name?"/>

<property name = "questionId" value = "789"/>

</bean>

</beans>

Main Class Question2.java

package Spring\_Core;

import static org.junit.jupiter.api.Assertions.\*;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

import org.junit.jupiter.api.Test;

class Question2

{

@SuppressWarnings("unused")

private static ApplicationContext context;

public static void main(String[] args)

{

@SuppressWarnings("resource")

ApplicationContext context = new ClassPathXmlApplicationContext("Coll.xml");

List set = (List) context.getBean("Collections");

System.out.println("Set : " + set.getSet());

}

}

Coll.xml

<beans xmlns="http://www.springframework.org/schema/beans"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:p="http://www.springframework.org/schema/p"

xmlns:aop="http://www.springframework.org/schema/aop" xmlns:context="http://www.springframework.org/schema/context"

xmlns:jee="http://www.springframework.org/schema/jee" xmlns:tx="http://www.springframework.org/schema/tx"

xmlns:task="http://www.springframework.org/schema/task" xsi:schemaLocation="http://www.springframework.org/schema/aop http://www.springframework.org/schema/aop/spring-aop-3.2.xsd http://www.springframework.org/schema/beans http://www.springframework.org/schema/beans/spring-beans-3.2.xsd http://www.springframework.org/schema/context http://www.springframework.org/schema/context/spring-context-3.2.xsd http://www.springframework.org/schema/jee http://www.springframework.org/schema/jee/spring-jee-3.2.xsd http://www.springframework.org/schema/tx http://www.springframework.org/schema/tx/spring-tx-3.2.xsd http://www.springframework.org/schema/task http://www.springframework.org/schema/task/spring-task-3.2.xsd">

<bean id="Collections" class="Spring\_Core.List">

<property name="set">

<set>

<ref bean="answers" />

<ref bean="answers1" />

<ref bean="answers2" />

</set>

</property>

</bean>

<bean id="answers" class="Spring\_Core.Question">

<property name="answers" value="Teja"/>

<property name = "question" value = "What's your name?"/>

<property name = "questionId" value = "123"/>

</bean>

<bean id="answers1" class="Spring\_Core.Question">

<property name="answers" value="Ritu"/>

<property name = "question" value = "What's your name?"/>

<property name = "questionId" value = "456"/>

</bean>

<bean id="answers2" class="Spring\_Core.Question">

<property name="answers" value="Manu"/>

<property name = "question" value = "What's your name?"/>

<property name = "questionId" value = "789"/>

</bean>

</beans>

Main Class Question2.java

package Spring\_Core;

import static org.junit.jupiter.api.Assertions.\*;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

import org.junit.jupiter.api.Test;

class Question2

{

@SuppressWarnings("unused")

private static ApplicationContext context;

public static void main(String[] args)

{

@SuppressWarnings("resource")

ApplicationContext context = new ClassPathXmlApplicationContext("Coll.xml");

List map = (List) context.getBean("Collections");

System.out.println("Map : " + map.getMap());

}

}

Coll.xml

<beans xmlns="http://www.springframework.org/schema/beans"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:p="http://www.springframework.org/schema/p"

xmlns:aop="http://www.springframework.org/schema/aop" xmlns:context="http://www.springframework.org/schema/context"

xmlns:jee="http://www.springframework.org/schema/jee" xmlns:tx="http://www.springframework.org/schema/tx"

xmlns:task="http://www.springframework.org/schema/task" xsi:schemaLocation="http://www.springframework.org/schema/aop http://www.springframework.org/schema/aop/spring-aop-3.2.xsd http://www.springframework.org/schema/beans http://www.springframework.org/schema/beans/spring-beans-3.2.xsd http://www.springframework.org/schema/context http://www.springframework.org/schema/context/spring-context-3.2.xsd http://www.springframework.org/schema/jee http://www.springframework.org/schema/jee/spring-jee-3.2.xsd http://www.springframework.org/schema/tx http://www.springframework.org/schema/tx/spring-tx-3.2.xsd http://www.springframework.org/schema/task http://www.springframework.org/schema/task/spring-task-3.2.xsd">

<bean id="Collections" class="Spring\_Core.List">

<property name="map">

<map>

<entry key="1" value-ref="answers" />

<entry key="2" value-ref="answers1" />

<entry key="3" value-ref="answers2" />

</map>

</property>

</bean>

<bean id="answers" class="Spring\_Core.Question">

<property name="answers" value="Teja"/>

<property name = "question" value = "What's your name?"/>

<property name = "questionId" value = "123"/>

</bean>

<bean id="answers1" class="Spring\_Core.Question">

<property name="answers" value="Ritu"/>

<property name = "question" value = "What's your name?"/>

<property name = "questionId" value = "456"/>

</bean>

<bean id="answers2" class="Spring\_Core.Question">

<property name="answers" value="Manu"/>

<property name = "question" value = "What's your name?"/>

<property name = "questionId" value = "789"/>

</bean>

</beans>