



Lab 02 RSMortgage Spring Framework Introduction

RSMortgage Spring Framework Introduction

Udemy Spring Cloud Course
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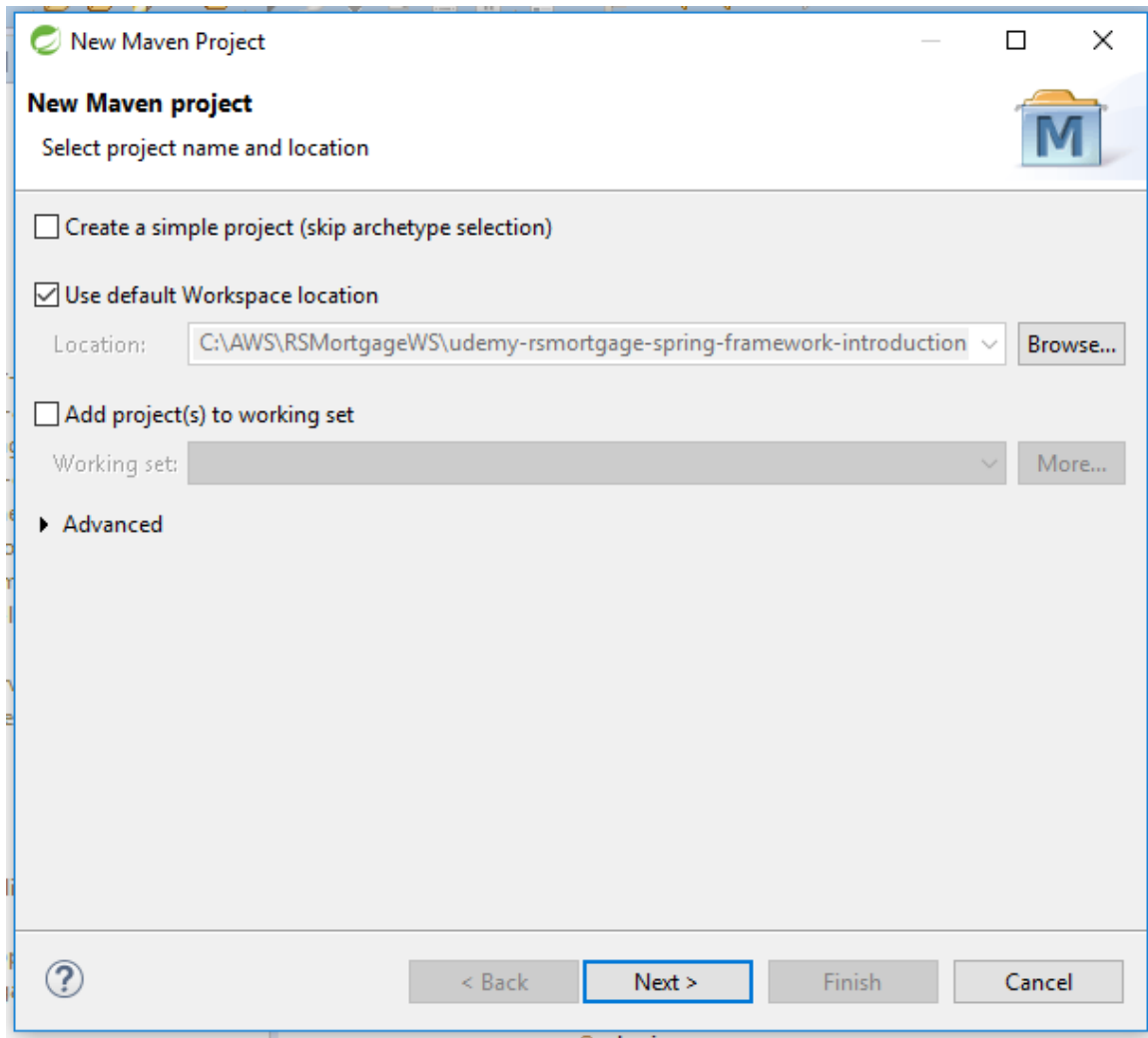
Chapter 1

Spring Framework Introduction Project Creation

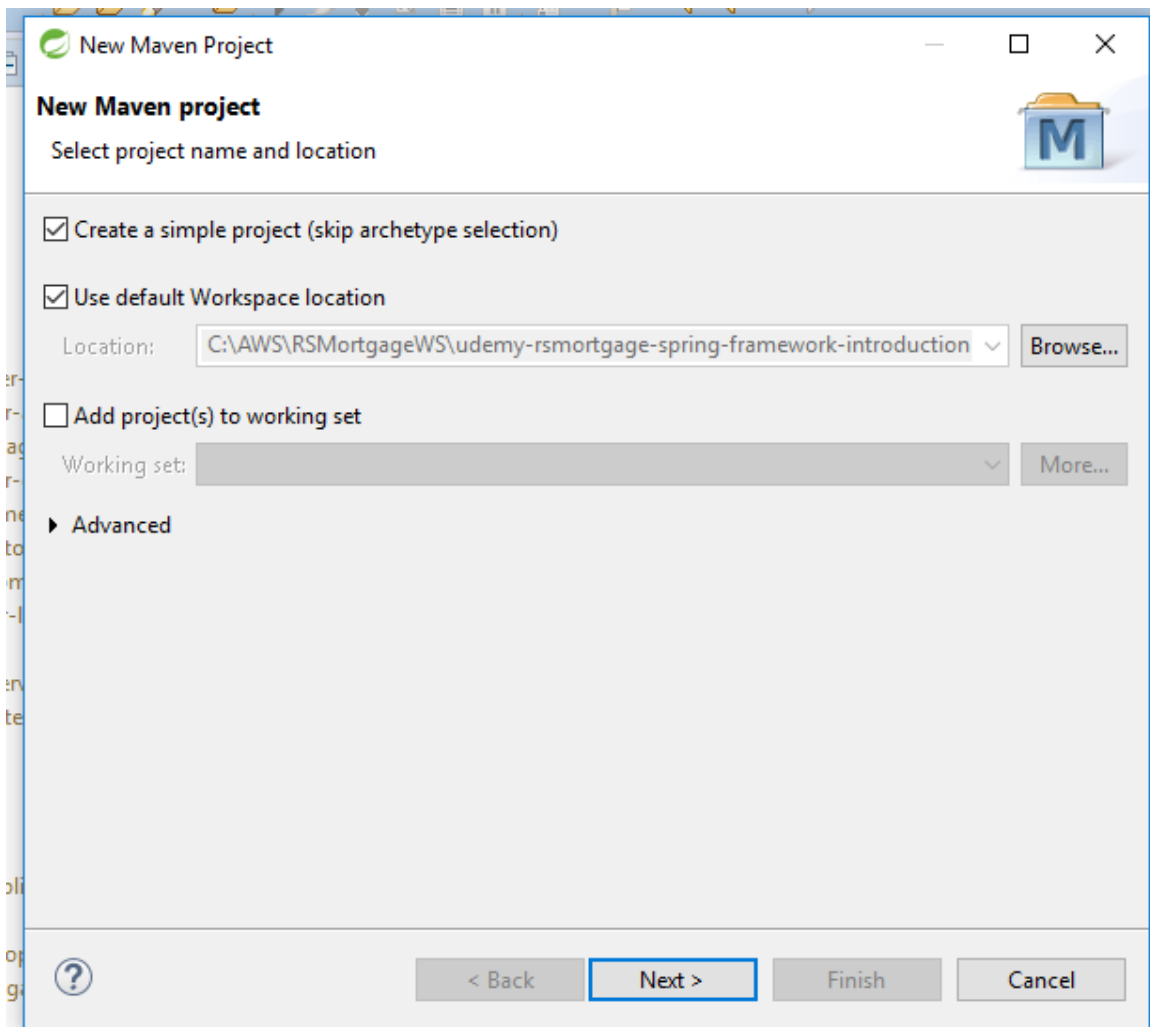
1.0 - Introduction

The purpose of this guide is to help walk through the process of creating a Spring Framework Maven Project application.

1.1 – Create a new Maven Starter Project



1.2 – Check the simple project checkbox



1.3 – Fill initial values

New Maven Project
Configure project

Artifact

Group Id:

Artifact Id:

Version:

Packaging:

Name:

Description:

Parent Project



Group Id:

Artifact Id:

Version:

► **Advanced**

1.4 – Click Finish Now

>  udemmy-rsmortgage-spring-framework-introduction
 udemmy-rsmortgage-spring-framework-introduction1

1.5 – Verify the project identification in the pom.xml

```
<groupId>com.rollingstone</groupId>
<artifactId>udemy-rsmortgage-spring-aop-afterretruning</artifactId>
<version>0.0.1-SNAPSHOT</version>
<name>udemy-rsmortgage-spring-framework-introduction</name>
<description>udemy-rsmortgage-spring-framework-introduction</description>
```

1.6 – Add Properties

```
<properties>
  <logback.version>1.1.1</logback.version>
  <jcloverslf4j.version>1.7.6</jcloverslf4j.version>
  <slf4j.version>1.6.4</slf4j.version>
</properties>
```

1.7 – Add Dependencies

```
<dependencies>
    <!-- https://mvnrepository.com/artifact/org.springframework/spring-
core -->
    <dependency>
        <groupId>org.springframework</groupId>
        <artifactId>spring-core</artifactId>
        <version>4.3.7.RELEASE</version>
    </dependency>

    <!-- https://mvnrepository.com/artifact/org.springframework/spring-context -->
    <dependency>
        <groupId>org.springframework</groupId>
        <artifactId>spring-context</artifactId>
        <version>4.3.7.RELEASE</version>
        <exclusions>
            <exclusion>
                <groupId>commons-logging</groupId>
                <artifactId>commons-logging</artifactId>
            </exclusion>
        </exclusions>
    </dependency>

    <!-- https://mvnrepository.com/artifact/org.springframework/spring-aop -->
    <dependency>
        <groupId>org.springframework</groupId>
        <artifactId>spring-aop</artifactId>
        <version>4.3.7.RELEASE</version>
    </dependency>

    <!-- https://mvnrepository.com/artifact/aspectj/aspectjrt -->
    <dependency>
        <groupId>org.aspectj</groupId>
        <artifactId>aspectjrt</artifactId>
        <version>1.6.11</version>
    </dependency>

    <dependency>
        <groupId>org.springframework</groupId>
        <artifactId>spring-aspects</artifactId>
        <version>4.3.7.RELEASE</version>
```

```

</dependency>

<dependency>
  <groupId>org.aspectj</groupId>
  <artifactId>aspectjweaver</artifactId>
  <version>1.6.11</version>
</dependency>

<!-- LogBack dependencies -->
<!-- https://mvnrepository.com/artifact/ch.qos.logback/logback-classic -->
<dependency>
  <groupId>ch.qos.logback</groupId>
  <artifactId>logback-classic</artifactId>
  <version>1.2.2</version>
</dependency>

<dependency>
  <groupId>org.slf4j</groupId>
  <artifactId>jcl-over-slf4j</artifactId>
  <version>${jcloverslf4j.version}</version>
</dependency>

<!-- https://mvnrepository.com/artifact/ch.qos.logback/logback-core -->
<!-- https://mvnrepository.com/artifact/ch.qos.logback/logback-core -->
<dependency>
  <groupId>ch.qos.logback</groupId>
  <artifactId>logback-core</artifactId>
  <version>1.2.2</version>
</dependency>
</dependencies>

```

1.8 –Create new java package for

- `com.rollingstone.springframework.basic.ioc.constructor.injection.first`
- `com.rollingstone.springframework.basic.ioc.constructor.injection.collection.second`
- `com.rollingstone.springframework.basic.ioc.setter.injection.third`
- `com.rollingstone.springframework.basic.ioc.real.life.examples.fourth`
- `com.rollingstone.springframework.aop.example.fifth`

1.9 –Create the Customer class in package first

```
package com.rollingstone.springframework.basic.ioc.constructor.injection.first;

import java.util.Date;

public class Customer {

    private long customerId;
    private String firstName;
    private String lastName;
    private Date dob;
    public long getCustomerId() {
        return customerId;
    }
    public void setCustomerId(long customerId) {
        this.customerId = customerId;
    }
    public String getFirstName() {
        return firstName;
    }
    public void setFirstName(String firstName) {
        this.firstName = firstName;
    }
    public String getLastName() {
        return lastName;
    }
    public void setLastName(String lastName) {
        this.lastName = lastName;
    }
    public Date getDob() {
        return dob;
    }
    public void setDob(Date dob) {
        this.dob = dob;
    }
    public Customer(long customerId, String firstName, String lastName, Date dob) {
        super();
        this.customerId = customerId;
        this.firstName = firstName;
        this.lastName = lastName;
        this.dob = dob;
    }
    public Customer() {
        super();
    }
}
```

}

}

1.10 –Create the Investment class in package first

```
package com.rollingstone.springframework.basic.ioc.constructor.injection.first;

import java.time.LocalDate;

import org.springframework.format.annotation.DateTimeFormat;

public class Investment {

    private String investmentId;

    private String investmentName;

    private String investmentDescription;

    private LocalDate investmentStartDate;

    private LocalDate invetsmentMaturityDate;


    public String getInvestmentId() {
        return investmentId;
    }

    public void setInvestmentId(String investmentId) {
        this.investmentId = investmentId;
    }

    public String getInvestmentName() {
        return investmentName;
    }

    public void setInvestmentName(String investmentName) {
        this.investmentName = investmentName;
    }

    public String getInvestmentDescription() {
        return investmentDescription;
    }

    public void setInvestmentDescription(String investmentDescription) {
        this.investmentDescription = investmentDescription;
    }
}
```



```

    }

    public LocalDate getInvestmentStartDate() {
        return investmentStartDate;
    }

    @DateTimeFormat(iso = DateTimeFormat.ISO.DATE)
    public void setInvestmentStartDate(LocalDate investmentStartDate) {
        this.investmentStartDate = investmentStartDate;
    }

    public LocalDate getInvetsmentMaturityDate() {
        return invetsmentMaturityDate;
    }

    @DateTimeFormat(iso = DateTimeFormat.ISO.DATE)
    public void setInvetsmentMaturityDate(LocalDate invetsmentMaturityDate) {
        this.invetsmentMaturityDate = invetsmentMaturityDate;
    }

    public Investment(String investmentId, String investmentName, String
investmentDescription,
        LocalDate investmentStartDate, LocalDate invetsmentMaturityDate) {
        super();
        this.investmentId = investmentId;
        this.investmentName = investmentName;
        this.investmentDescription = investmentDescription;
        this.investmentStartDate = investmentStartDate;
        this.invetsmentMaturityDate = invetsmentMaturityDate;
    }

    public Investment(String investmentId, String investmentName, String
investmentDescription) {
        super();
        this.investmentId = investmentId;
        this.investmentName = investmentName;
        this.investmentDescription = investmentDescription;
    }

    public Investment() {
        super();
    }

    @Override

```

```
    public String toString() {  
        return "Investment [investmentId=" + investmentId + ", investmentName=" +  
investmentName  
            + ", investmentDescription=" + investmentDescription + ",  
investmentStartDate=" + investmentStartDate  
            + ", invetsmentMaturityDate=" + invetsmentMaturityDate + "];  
    }  
  
}
```

1.11 –Create the LocalDateFactory class in package first

```
package com.rollingstone.springframework.basic.ioc.constructor.injection.first;

import java.time.LocalDate;
import java.time.format.DateTimeFormatter;

public class LocalDateFactory {

    static DateTimeFormatter formatter = DateTimeFormatter.ofPattern("yyyy-MM-dd");

    public static LocalDate createLocalDate(String localDateString)
    {
        LocalDate localDate = LocalDate.parse(localDateString);

        return localDate;
    }
}
```

1.12 –Create the LocalDateTimeFactory class in package first

```
package com.rollingstone.springframework.basic.ioc.constructor.injection.first;

import java.time.LocalDateTime;
import java.time.format.DateTimeFormatter;

public class LocalDateTimeFactory {

    public static LocalDateTime createLocalDateTime(String localDateTimeString)
    {
        DateTimeFormatter formatter = DateTimeFormatter.ofPattern("yyyy-MM-dd
HH:mm");

        LocalDateTime dateTime = LocalDateTime.parse(localDateTimeString, formatter);

        return dateTime;
    }
}
```

1.13 –Create the TestSimpleSpringIOC class in package first

```
package com.rollingstone.springframework.basic.ioc.contructor.injection.first;

import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
import org.springframework.beans.factory.BeanFactory;
import org.springframework.beans.factory.xml.XmlBeanFactory;
import org.springframework.core.io.ClassPathResource;
import org.springframework.core.io.Resource;

import com.rollingstone.springframework.basic.ioc.real.life.examples.fourth.Dolphins;

public class TestSimpleSpringIOC {

    private static final Logger logger =
LoggerFactory.getLogger(TestSimpleSpringIOC.class);


    public static void main(String[] args) {

        Resource r=new ClassPathResource("spring-ioc-constructor-arg.xml");
        BeanFactory factory=new XmlBeanFactory(r);

        Investment investment =(Investment)factory.getBean("investment01");
        logger.info(investment.toString());

    }
}
```

1.14 –Create the Car class in package second

```
<?xml version="1.0" encoding="UTF-8"?>
<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"
       xsi:schemaLocation="http://www.springframework.org/schema/beans
                           http://www.springframework.org/schema/beans/spring-beans-3.0.xsd">

    <bean id="dateFormat" class="java.text.SimpleDateFormat">
        <constructor-arg value="yyyy-MM-dd" />
    </bean>

    <bean id="customer01"

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.Customer">
        <constructor-arg value="1" type="int"></constructor-arg>
        <constructor-arg value="Steven" type="String"></constructor-arg>
        <constructor-arg value="Smith" type="String"></constructor-arg>
        <constructor-arg value="1993-01-01" type="java.util.Date"></constructor-arg>
    </bean>

    <bean id="investment01"

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.Investment
">
        <constructor-arg index="0" value="1" type="java.lang.String"></constructor-
arg>
        <constructor-arg index="1" value="Rental Property"
type="java.lang.String"></constructor-arg>
        <constructor-arg index="2" value="Rental Property"
type="java.lang.String"></constructor-arg>
        <property name="investmentStartDate">
            <ref bean="localDate01" />
        </property>
        <property name="invetsmentMaturityDate">
            <ref bean="localDate02" />
        </property>
    </bean>

    <bean id="localDate01"
```

```

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateF
actory"
        factory-method="createLocalDate">
        <constructor-arg value="1993-01-01" />
    </bean>

    <bean id="localDate02"

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateF
actory"
        factory-method="createLocalDate">
        <constructor-arg value="2013-01-01" />
    </bean>

</beans>

```

1.15 –Create the Car class in package second

```

package
com.rollingstone.springframework.basic.ioc.constructor.injection.collection.second;

import java.time.LocalDate;

public class Car {

    private long carID;

    private int carYear;

    private String carModel;
    private String carMake;

    private String carColor;

    private LocalDate registrationRenewalDate;

    public long getCarID() {
        return carID;
    }

    public void setCarID(long carID) {
        this.carID = carID;
    }
}

```

```

    }

    public int getCarYear() {
        return carYear;
    }

    public void setCarYear(int carYear) {
        this.carYear = carYear;
    }

    public String getCarModel() {
        return carModel;
    }

    public void setCarModel(String carModel) {
        this.carModel = carModel;
    }

    public String getCarMake() {
        return carMake;
    }

    public void setCarMake(String carMake) {
        this.carMake = carMake;
    }

    public String getCarColor() {
        return carColor;
    }

    public void setCarColor(String carColor) {
        this.carColor = carColor;
    }

    @Override
    public String toString() {
        return "Car [carID=" + carID + ", carYear=" + carYear + ", carModel=" +
carModel + ", carMake=" + carMake
        + ", carColor=" + carColor + "];"
    }

    public Car(long carID, int carYear, String carModel, String carMake, String
carColor,

```



```

        LocalDate registrationRenewalDate) {
    super();
    this.carID = carID;
    this.carYear = carYear;
    this.carModel = carModel;
    this.carMake = carMake;
    this.carColor = carColor;
    this.registrationRenewalDate = registrationRenewalDate;
}

    public LocalDate getRegistrationRenewalDate() {
        return registrationRenewalDate;
    }

    public void setRegistrationRenewalDate(LocalDate registrationRenewalDate) {
        this.registrationRenewalDate = registrationRenewalDate;
    }

    public Car(long carID, int carYear, String carModel, String carMake, String
carColor) {
        super();
        this.carID = carID;
        this.carYear = carYear;
        this.carModel = carModel;
        this.carMake = carMake;
        this.carColor = carColor;
    }

}

```

1.16 –Create the CarOwner class in package second

```
package
com.rollingstone.springframework.basic.ioc.constructor.injection.collection.second;

import java.time.LocalDate;
import java.util.Date;
import java.util.Map;

public class CarOwner {

    private long ownerId;
    private String firstName;
    private String lastName;
    private LocalDate dob;

    private Map<String,String> cars;

    public long getOwnerId() {
        return ownerId;
    }
    public void setOwnerId(long ownerId) {
        this.ownerId = ownerId;
    }
    public String getFirstName() {
        return firstName;
    }
    public void setFirstName(String firstName) {
        this.firstName = firstName;
    }
    public String getLastName() {
        return lastName;
    }
    public void setLastName(String lastName) {
        this.lastName = lastName;
    }

    public CarOwner() {
        super();
    }
    @Override
    public String toString() {
        return "CarOwner [ownerId=" + ownerId + ", firstName=" + firstName + ",
lastName=" + lastName + ", dob=" + dob
```

```

        + ", cars=" + cars + "];
    }
    public LocalDate getDob() {
        return dob;
    }
    public void setDob(LocalDate dob) {
        this.dob = dob;
    }
    public Map<String, String> getCars() {
        return cars;
    }
    public void setCars(Map<String, String> cars) {
        this.cars = cars;
    }
    public CarOwner(long ownerId, String firstName, String lastName, LocalDate
dob, Map<String, String> cars) {
        super();
        this.ownerId = ownerId;
        this.firstName = firstName;
        this.lastName = lastName;
        this.dob = dob;
        this.cars = cars;
    }
}

```

1.17 –Create the CarOwnerWithMapObjects class in package second

```
package
com.rollingstone.springframework.basic.ioc.contructor.injection.collection.second;

import java.time.LocalDate;
import java.util.Date;
import java.util.Map;

public class CarOwnerWithMapObjects {

    private long ownerId;
    private String firstName;
    private String lastName;
    private LocalDate dob;

    private Map<String,Car> cars;

    public long getOwnerId() {
        return ownerId;
    }
    public void setOwnerId(long ownerId) {
        this.ownerId = ownerId;
    }
    public String getFirstName() {
        return firstName;
    }
    public void setFirstName(String firstName) {
        this.firstName = firstName;
    }
    public String getLastName() {
        return lastName;
    }
    public void setLastName(String lastName) {
        this.lastName = lastName;
    }
    public LocalDate getDob() {
        return dob;
    }
    public void setDob(LocalDate dob) {
        this.dob = dob;
    }
    public CarOwnerWithMapObjects(long ownerId, String firstName, String
lastName, LocalDate dob) {
        super();
    }
}
```

```

        this.ownerId = ownerId;
        this.firstName = firstName;
        this.lastName = lastName;
        this.dob = dob;
    }
    public CarOwnerWithMapObjects() {
        super();
    }
    @Override
    public String toString() {
        return "CarOwner [ownerId=" + ownerId + ", firstName=" + firstName + ",
lastName=" + lastName + ", dob=" + dob
        + ", cars=" + cars + "]";
    }
    public CarOwnerWithMapObjects(long ownerId, String firstName, String
lastName, LocalDate dob,
        Map<String, Car> cars) {
        super();
        this.ownerId = ownerId;
        this.firstName = firstName;
        this.lastName = lastName;
        this.dob = dob;
        this.cars = cars;
    }
}

```

1.18 –Create the CartItem class in package second

```
package
com.rollingstone.springframework.basic.ioc.contructor.injection.collection.second;

import java.time.LocalDate;

public class CartItem {

    private long itemID;

    private String cartItemName;

    private LocalDate mfgDate;

    private LocalDate expiryDate;

    public long getItemID() {
        return itemID;
    }

    public void setItemID(long itemID) {
        this.itemID = itemID;
    }

    public String getCartItemName() {
        return cartItemName;
    }

    public void setCartItemName(String cartItemName) {
        this.cartItemName = cartItemName;
    }

    public LocalDate getMfgDate() {
        return mfgDate;
    }

    public void setMfgDate(LocalDate mfgDate) {
        this.mfgDate = mfgDate;
    }

    public LocalDate getExpiryDate() {
        return expiryDate;
    }
}
```

```

    public void setExpiryDate(LocalDate expiryDate) {
        this.expiryDate = expiryDate;
    }

    public CartItem(long itemID, String cartItemName, LocalDate mfgDate,
        LocalDate expiryDate) {
        super();
        this.itemID = itemID;
        this.cartItemName = cartItemName;
        this.mfgDate = mfgDate;
        this.expiryDate = expiryDate;
    }

    public CartItem() {
        super();
    }

    @Override
    public String toString() {
        return "CartItem [itemID=" + itemID + ", cartItemName=" + cartItemName +
            ", mfgDate=" + mfgDate
                + ", expiryDate=" + expiryDate + "]";
    }

}

```

1.19 –Create the ShoppingCart class in package second

```
package
com.rollingstone.springframework.basic.ioc.constructor.injection.collection.second;

import java.time.LocalDate;
import java.util.ArrayList;
import java.util.List;

public class ShoppingCart {

    private long shoppingCartId;

    private LocalDate cartDate;

    private List<String> cartItems = new ArrayList<String>();

    public long getShoppingCartId() {
        return shoppingCartId;
    }

    public void setShoppingCartId(long shoppingCartId) {
        this.shoppingCartId = shoppingCartId;
    }

    public LocalDate getCartDate() {
        return cartDate;
    }

    public void setCartDate(LocalDate cartDate) {
        this.cartDate = cartDate;
    }

    public List<String> getCartItems() {
        return cartItems;
    }

    public void setCartItems(List<String> cartItems) {
        this.cartItems = cartItems;
    }

    public ShoppingCart(long shoppingCartId, LocalDate cartDate, List<String>
cartItems) {
        super();
        this.shoppingCartId = shoppingCartId;
    }
}
```



```

        this.cartDate = cartDate;
        this.cartItems = cartItems;
    }

    public ShoppingCart(long shoppingCartId) {
        super();
        this.shoppingCartId = shoppingCartId;
    }

    public ShoppingCart() {
        super();
    }

    @Override
    public String toString() {
        return "ShoppingCart [shoppingCartId=" + shoppingCartId + ", cartDate=" +
cartDate + ", cartItems=" + cartItems
            + "]";
    }

}

```

1.20 –Create the ShoppingCartWithItemObjects class in package second

```
package
com.rollingstone.springframework.basic.ioc.constructor.injection.collection.second;

import java.time.LocalDate;
import java.util.ArrayList;
import java.util.List;

public class ShoppingCartWithItemObjects {

    private long shoppingCartId;

    private LocalDate cartDate;

    private List<CartItem> cartItems = new ArrayList<CartItem>();

    public long getShoppingCartId() {
        return shoppingCartId;
    }

    public void setShoppingCartId(long shoppingCartId) {
        this.shoppingCartId = shoppingCartId;
    }

    public LocalDate getCartDate() {
        return cartDate;
    }

    public void setCartDate(LocalDate cartDate) {
        this.cartDate = cartDate;
    }

    public List<CartItem> getCartItems() {
        return cartItems;
    }

    public void setCartItems(List<CartItem> cartItems) {
        this.cartItems = cartItems;
    }
}
```

```

        public ShoppingCartWithItemObjects(long shoppingCartId, LocalDate cartDate,
List<CartItem> cartItems) {
            super();
            this.shoppingCartId = shoppingCartId;
            this.cartDate = cartDate;
            this.cartItems = cartItems;
        }

        public ShoppingCartWithItemObjects(long shoppingCartId) {
            super();
            this.shoppingCartId = shoppingCartId;
        }

        public ShoppingCartWithItemObjects() {
            super();
        }

        @Override
        public String toString() {
            return "ShoppingCart [shoppingCartId=" + shoppingCartId + ", cartDate=" +
cartDate + ", cartItems=" + cartItems
                + "]";
        }

    }
}

```

1.21 –Create the TestSimpleSpringIOC class in package second

```
package
com.rollingstone.springframework.basic.ioc.contructor.injection.collection.second;

import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
import org.springframework.beans.factory.BeanFactory;
import org.springframework.beans.factory.xml.XmlBeanFactory;
import org.springframework.core.io.ClassPathResource;
import org.springframework.core.io.Resource;

import com.rollingstone.springframework.basic.ioc.real.life.examples.fourth.Dolphins;

public class TestSimpleSpringIOC {

    private static final Logger logger =
LoggerFactory.getLogger(TestSimpleSpringIOC.class);

    public static void main(String[] args) {

        Resource r=new ClassPathResource("applicationContext-constructor-arg-
collection-list.xml");
        BeanFactory factory=new XmlBeanFactory(r);

        ShoppingCart cartOfStrings =(ShoppingCart)factory.getBean("cartOfStrings");
        logger.info(cartOfStrings.toString());

        ShoppingCartWithItemObjects cartOfObjects
=(ShoppingCartWithItemObjects)factory.getBean("cartOfObjects");
        logger.info(cartOfObjects.toString());

    }
}
```

1.22 –Create the TestSpringIOCMap class in package second

```
package
com.rollingstone.springframework.basic.ioc.constructor.injection.collection.second;

import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
import org.springframework.beans.factory.BeanFactory;
import org.springframework.beans.factory.xml.XmlBeanFactory;
import org.springframework.core.io.ClassPathResource;
import org.springframework.core.io.Resource;

import com.rollingstone.springframework.basic.ioc.real.life.examples.fourth.Dolphins;

public class TestSpringIOCMap {

    private static final Logger logger =
LoggerFactory.getLogger(TestSpringIOCMap.class);

    public static void main(String[] args) {

        Resource r=new ClassPathResource("applicationContext-constructor-arg-
collection-map.xml");
        BeanFactory factory=new XmlBeanFactory(r);

        CarOwner carOwner =(CarOwner)factory.getBean("ownerCarMapOfStrings");
        logger.info(carOwner.toString());

        CarOwnerWithMapObjects ownerCarMapOfObjects
=(CarOwnerWithMapObjects)factory.getBean("ownerCarMapOfObjects");
        logger.info(ownerCarMapOfObjects.toString());

    }
}
```

1.23 –Create the applicationContext-creator-arg-collection-list.xml in the resources folder

```
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
       xmlns:aop="http://www.springframework.org/schema/aop"
       xsi:schemaLocation="http://www.springframework.org/schema/beans
       http://www.springframework.org/schema/beans/spring-beans.xsd
       http://www.springframework.org/schema/aop
       http://www.springframework.org/schema/aop/spring-aop.xsd">

    <bean id="localDate01"

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateFactory"
        factory-method="createLocalDate">
        <constructor-arg value="1975-01-14" />
    </bean>

    <bean id="mfgDate"

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateFactory"
        factory-method="createLocalDate">
        <constructor-arg value="2017-03-24" />
    </bean>

    <bean id="expDate"

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateFactory"
        factory-method="createLocalDate">
        <constructor-arg value="2017-06-24" />
    </bean>

    <bean id="cartOfStrings"
class="com.rollingstone.springframework.basic.ioc.constructor.injection.collection.ShoppingCart">
        <constructor-arg value="01"></constructor-arg>
        <constructor-arg>
            <ref bean="localDate01"/>
        </constructor-arg>
        <constructor-arg>
            <list>
```

```

        <value>Milk</value>
        <value>Potatoe</value>
        <value>Pizza</value>
        <value>Cookies</value>
        <value>Ice Cream</value>
    </list>
</constructor-arg>
</bean>

```

```

<bean id="cartOfObjects"
class="com.rollingstone.springframework.basic.ioc.constructor.injection.collection.ShoppingCartWithItemObjects">
    <constructor-arg value="01"></constructor-arg>
    <constructor-arg>
        <ref bean="localDate01"/>
    </constructor-arg>
    <constructor-arg>
        <list>
            <ref bean="milk" />
            <ref bean="potatoe" />
            <ref bean="pizza" />
            <ref bean="cookies" />
            <ref bean="icecream" />
        </list>
    </constructor-arg>
</bean>

```

```

<bean id="milk"
class="com.rollingstone.springframework.basic.ioc.constructor.injection.collection.CartItem">
    <constructor-arg value="01"></constructor-arg>
    <constructor-arg value="Milk"></constructor-arg>
    <constructor-arg index="2">
        <ref bean="mfgDate"/>
    </constructor-arg>
    <constructor-arg index="3">
        <ref bean="expDate"/>
    </constructor-arg>
</bean>

```

```

<bean id="potatoe"
class="com.rollingstone.springframework.basic.ioc.constructor.injection.collection.CartItem">
    <constructor-arg value="02"></constructor-arg>
    <constructor-arg value="Potatoe"></constructor-arg>

```

```

        <constructor-arg index="2">
            <ref bean="mfgDate"/>
        </constructor-arg>
        <constructor-arg index="3">
            <ref bean="expDate"/>
        </constructor-arg>
    </bean>

    <bean id="pizza"
    class="com.rollingstone.springframework.basic.ioc.constructor.injection.collection.CartItem">
        <constructor-arg value="03"></constructor-arg>
        <constructor-arg value="Pizza"></constructor-arg>
        <constructor-arg index="2">
            <ref bean="mfgDate"/>
        </constructor-arg>
        <constructor-arg index="3">
            <ref bean="expDate"/>
        </constructor-arg>
    </bean>

    <bean id="cookies"
    class="com.rollingstone.springframework.basic.ioc.constructor.injection.collection.CartItem">
        <constructor-arg value="04"></constructor-arg>
        <constructor-arg value="Cookies"></constructor-arg>
        <constructor-arg index="2">
            <ref bean="mfgDate"/>
        </constructor-arg>
        <constructor-arg index="3">
            <ref bean="expDate"/>
        </constructor-arg>
    </bean>

    <bean id="icecream"
    class="com.rollingstone.springframework.basic.ioc.constructor.injection.collection.CartItem">
        <constructor-arg value="05"></constructor-arg>
        <constructor-arg value="Ice Cream"></constructor-arg>
        <constructor-arg index="2">
            <ref bean="mfgDate"/>
        </constructor-arg>
        <constructor-arg index="3">
            <ref bean="expDate"/>
        </constructor-arg>
    </bean>

```


</bean>

</beans>

1.24 –Create the applicationContext-creator-arg-collection-map.xml in the resources folder

```
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
       xmlns:aop="http://www.springframework.org/schema/aop"
       xsi:schemaLocation="http://www.springframework.org/schema/beans
       http://www.springframework.org/schema/beans/spring-beans.xsd
       http://www.springframework.org/schema/aop
       http://www.springframework.org/schema/aop/spring-aop.xsd">

    <bean id="localDate01"

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateFactory"
        factory-method="createLocalDate">
        <constructor-arg value="1975-01-14" />
    </bean>

    <bean id="regnRenewalDate"

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateFactory"
        factory-method="createLocalDate">
        <constructor-arg value="2017-03-24" />
    </bean>

    <bean id="ownerCarMapOfStrings"
    class="com.rollingstone.springframework.basic.ioc.constructor.injection.collection.CarOwner">
        <constructor-arg index="0" value="01"></constructor-arg>
        <constructor-arg index="1" value="Steven"></constructor-arg>
        <constructor-arg index="2" value="Smith"></constructor-arg>
        <constructor-arg index="3">
            <ref bean="localDate01"/>
        </constructor-arg>
        <constructor-arg index="4">
            <map>
                <entry key="primaryCar" value="Toyota Prius"></entry>
                <entry key="secondaryCar" value="Toyota Highlander"></entry>
                <entry key="LeisureCar" value="BMW X5"></entry>
            </map>
        </constructor-arg>
    </bean>
```

```
    </constructor-arg>
</bean>
```

```
    <bean id="ownerCarMapOfObjects"
class="com.rollingstone.springframework.basic.ioc.constructor.injection.collection.CarO
wnerWithMapObjects">
    <constructor-arg index="0" value="01"></constructor-arg>
    <constructor-arg index="1" value="Ashley"></constructor-arg>
    <constructor-arg index="2" value="Bentley"></constructor-arg>
    <constructor-arg index="3">
        <ref bean="localDate01"/>
    </constructor-arg>
    <constructor-arg index="4">
        <map>
            <entry key="primaryCar" value-ref="toyotaprius"></entry>
            <entry key="secondaryCar" value-ref="toyotahighander"></entry>
            <entry key="LeisureCar" value-ref="bmwX5"></entry>
        </map>
    </constructor-arg>
</bean>
```

```
<bean id="toyotaprius"
class="com.rollingstone.springframework.basic.ioc.constructor.injection.collection.Car">
    <constructor-arg index="0" value="01"></constructor-arg>
    <constructor-arg index="1" value="2014"></constructor-arg>
    <constructor-arg index="2" value="Toyota"></constructor-arg>
    <constructor-arg index="3" value="Prius"></constructor-arg>
    <constructor-arg index="4" value="White"></constructor-arg>
    <constructor-arg index="5">
        <ref bean="regnRenewalDate"/>
    </constructor-arg>
</bean>
```

```
<bean id="toyotahighander"
class="com.rollingstone.springframework.basic.ioc.constructor.injection.collection.Car">
    <constructor-arg index="0" value="01"></constructor-arg>
    <constructor-arg index="1" value="2014"></constructor-arg>
    <constructor-arg index="2" value="Toyota"></constructor-arg>
    <constructor-arg index="3" value="HighLander"></constructor-arg>
    <constructor-arg index="4" value="Gold"></constructor-arg>
    <constructor-arg index="5">
        <ref bean="regnRenewalDate"/>
    </constructor-arg>
</bean>
```

```
<bean id="bmwX5"
class="com.rollingstone.springframework.basic.ioc.constructor.injection.collection.Car">
    <constructor-arg index="0" value="01"></constructor-arg>
    <constructor-arg index="1" value="2014"></constructor-arg>
    <constructor-arg index="2" value="BMW"></constructor-arg>
    <constructor-arg index="3" value="X5"></constructor-arg>
    <constructor-arg index="4" value="White"></constructor-arg>
    <constructor-arg index="5">
        <ref bean="regnRenewalDate"/>
    </constructor-arg>
</bean>

</beans>
```

1.25 –Create the Address class in the Third package

```
package com.rollingstone.springframework.basic.ioc.setter.injection.third;

public class Address {

    private long addressID;

    private String streetAddress;

    private String city;

    private String state;

    private String zipCode;

    public long getAddressID() {
        return addressID;
    }

    public void setAddressID(long addressID) {
        this.addressID = addressID;
    }

    public String getStreetAddress() {
        return streetAddress;
    }

    public void setStreetAddress(String streetAddress) {
        this.streetAddress = streetAddress;
    }

    public String getCity() {
        return city;
    }

    public void setCity(String city) {
        this.city = city;
    }

    public String getState() {
        return state;
    }
}
```

```

    public void setState(String state) {
        this.state = state;
    }

    public String getZipCode() {
        return zipCode;
    }

    public void setZipCode(String zipCode) {
        this.zipCode = zipCode;
    }

    public Address(long addressID, String streetAddress, String city, String state,
String zipCode) {
        super();
        this.addressID = addressID;
        this.streetAddress = streetAddress;
        this.city = city;
        this.state = state;
        this.zipCode = zipCode;
    }

    public Address() {
        super();
    }

    @Override
    public String toString() {
        return "Address [addressID=" + addressID + ", streetAddress=" +
streetAddress + ", city=" + city + ", state="
        + state + ", zipCode=" + zipCode + "]";
    }

}

```

1.26 –Create the Customer class in the package Third

```
package com.rollingstone.springframework.basic.ioc.setter.injection.third;

import java.time.LocalDate;
import java.util.Date;

public class Customer {

    private long customerId;
    private String firstName;
    private String lastName;
    private LocalDate dob;
    public long getCustomerId() {
        return customerId;
    }
    public void setCustomerId(long customerId) {
        this.customerId = customerId;
    }
    public String getFirstName() {
        return firstName;
    }
    public void setFirstName(String firstName) {
        this.firstName = firstName;
    }
    public String getLastName() {
        return lastName;
    }
    public void setLastName(String lastName) {
        this.lastName = lastName;
    }
    public LocalDate getDob() {
        return dob;
    }
    public void setDob(LocalDate dob) {
        this.dob = dob;
    }
    public Customer(long customerId, String firstName, String lastName, LocalDate
dob) {
        super();
        this.customerId = customerId;
        this.firstName = firstName;
        this.lastName = lastName;
        this.dob = dob;
    }
}
```

```
public Customer() {  
    super();  
}  
@Override  
public String toString() {  
    return "Customer [customerId=" + customerId + ", firstName=" + firstName +  
    ", lastName=" + lastName + ", dob=" + dob + "]  
}  
  
}
```


1.27 –Create the CustomerWithAddress in the package Third

```
package com.rollingstone.springframework.basic.ioc.setter.injection.third;

import java.time.LocalDate;
import java.util.ArrayList;
import java.util.List;

public class CustomerWithAddress {

    private long customerId;
    private String firstName;
    private String lastName;
    private LocalDate dob;

    private Address address;

    private List<String> phoneNumbers = new ArrayList<String>();

    private List<Education> degrees = new ArrayList<Education>();

    public long getCustomerId() {
        return customerId;
    }
    public void setCustomerId(long customerId) {
        this.customerId = customerId;
    }
    public String getFirstName() {
        return firstName;
    }
    public void setFirstName(String firstName) {
        this.firstName = firstName;
    }
    public String getLastName() {
        return lastName;
    }
    public void setLastName(String lastName) {
        this.lastName = lastName;
    }
    public LocalDate getDob() {
        return dob;
    }
    public void setDob(LocalDate dob) {
        this.dob = dob;
    }
}
```

```

    public Address getAddress() {
        return address;
    }
    public void setAddress(Address address) {
        this.address = address;
    }

    public List<String> getPhoneNumbers() {
        return phoneNumbers;
    }
    public void setPhoneNumbers(List<String> phoneNumbers) {
        this.phoneNumbers = phoneNumbers;
    }

    //TODO Comment the getter and setter for degrees
    public List<Education> getDegrees() {
        return degrees;
    }
    public void setDegrees(List<Education> degrees) {
        this.degrees = degrees;
    }

    public CustomerWithAddress(long customerId, String firstName, String
lastName, LocalDate dob) {
        super();
        this.customerId = customerId;
        this.firstName = firstName;
        this.lastName = lastName;
        this.dob = dob;
    }
    public CustomerWithAddress() {
        super();
    }
    @Override
    public String toString() {
        return "CustomerWithAddress [customerId=" + customerId + ", firstName=" +
firstName + ", lastName=" + lastName
        + ", dob=" + dob + ", address=" + address + ", phoneNumbers=" +
phoneNumbers + ", degrees=" + degrees
        + "]";
    }
}

```

```
}
```

1.28 –Create the Education class in the package Third

```
package com.rollingstone.springframework.basic.ioc.setter.injection.third;
```

```
import java.time.LocalDate;
```

```
public class Education {
```

```
    private long educationID;
```

```
    private String degreeName;
```

```
    private String degreeDescription;
```

```
    private LocalDate started;
```

```
    private LocalDate completed;
```

```
    private boolean hasReceivedDegree;
```

```
    private String univeersity;
```

```
    private float gpa;
```

```
    public long getEducationID() {  
        return educationID;  
    }
```

```
    public void setEducationID(long educationID) {  
        this.educationID = educationID;  
    }
```

```
    public String getDegreeName() {  
        return degreeName;  
    }
```

```
    public void setDegreeName(String degreeName) {  
        this.degreeName = degreeName;  
    }
```

```
    public String getDegreeDescription() {  
        return degreeDescription;  
    }
```

```

    }

    public void setDegreeDescription(String degreeDescription) {
        this.degreeDescription = degreeDescription;
    }

    public LocalDate getStarted() {
        return started;
    }

    public void setStarted(LocalDate started) {
        this.started = started;
    }

    public LocalDate getCompleted() {
        return completed;
    }

    public void setCompleted(LocalDate completed) {
        this.completed = completed;
    }

    public boolean isHasReceivedDegree() {
        return hasReceivedDegree;
    }

    public void setHasReceivedDegree(boolean hasReceivedDegree) {
        this.hasReceivedDegree = hasReceivedDegree;
    }

    public String getUniveersity() {
        return univeersity;
    }

    public void setUniveersity(String univeersity) {
        this.univeersity = univeersity;
    }

    public float getGpa() {
        return gpa;
    }

    public void setGpa(float gpa) {
        this.gpa = gpa;
    }
}

```

```

    public Education(long educationID, String degreeName, String degreeDescription,
        LocalDate started,
            LocalDate completed, boolean hasReceivedDegree, String univeersity, float
gpa) {
    super();
    this.educationID = educationID;
    this.degreeName = degreeName;
    this.degreeDescription = degreeDescription;
    this.started = started;
    this.completed = completed;
    this.hasReceivedDegree = hasReceivedDegree;
    this.univeersity = univeersity;
    this.gpa = gpa;
}

    public Education() {
        super();
    }

    @Override
    public String toString() {
        return "Education [educationID=" + educationID + ", degreeName=" +
degreeName + ", degreeDescription="
            + degreeDescription + ", started=" + started + ", completed=" +
completed + ", hasReceivedDegree="
            + hasReceivedDegree + ", univeersity=" + univeersity + ", gpa=" + gpa
+ "]\n";
    }

}

```

1.29 –Create the TestSetterInjection in the package Third

```
package com.rollingstone.springframework.basic.ioc.setter.injection.third;

import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
import org.springframework.beans.factory.BeanFactory;
import org.springframework.beans.factory.xml.XmlBeanFactory;
import org.springframework.core.io.ClassPathResource;
import org.springframework.core.io.Resource;

import com.rollingstone.springframework.aop.example.fifth.RunAirportOperation;

public class TestSetterInjection {

    private static final Logger logger =
LoggerFactory.getLogger(TestSetterInjection.class);

    public static void main(String[] args) {

        Resource r=new ClassPathResource("applicationContext-setter-
injection.xml");
        BeanFactory factory=new XmlBeanFactory(r);

        Customer customer =(Customer)factory.getBean("customer");
        logger.info("Customer Infomation :"+customer.toString());

        CustomerWithAddress customerWithAddress
=(CustomerWithAddress)factory.getBean("customerWithAddress");
        logger.info("Customer With Address Infomation
:"+customerWithAddress.toString());

    }
}
```

1.30 –Create the DI-application-context-real-life.xml in the resources folder

```
<?xml version="1.0" encoding="UTF-8"?>
<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"
       xsi:schemaLocation="http://www.springframework.org/schema/beans
                           http://www.springframework.org/schema/beans/spring-beans-3.0.xsd">

    <bean id="dateOfBirth"

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateFactory"
        factory-method="createLocalDate">
        <constructor-arg value="2017-03-24" />
    </bean>

    <bean id="bsStarted"

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateFactory"
        factory-method="createLocalDate">
        <constructor-arg value="2012-05-01" />
    </bean>

    <bean id="bsCompleted"

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateFactory"
        factory-method="createLocalDate">
        <constructor-arg value="2014-07-24" />
    </bean>

    <bean id="msStarted"

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateFactory"
        factory-method="createLocalDate">
        <constructor-arg value="2014-08-01" />
    </bean>

    <bean id="msCompleted"
```

```

    class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateFactory"
    factory-method="createLocalDate">
    <constructor-arg value="2015-10-11" />
</bean>

<bean id="address01"
    class="com.rollingstone.springframework.basic.ioc.setter.injection.Address">
    <property name="addressID" value="1"></property>
    <property name="streetAddress" value="10 InfinteLoop"></property>
    <property name="city" value="Palo Alto"></property>
    <property name="state" value="CA"></property>
    <property name="zipCode" value="94567"></property>
</bean>

<bean id="customer"
    class="com.rollingstone.springframework.basic.ioc.setter.injection.Customer">
    <property name="customerId">
        <value>1</value>
    </property>
    <property name="firstName">
        <value>Sophia</value>
    </property>
    <property name="lastName">
        <value>Jhonson</value>
    </property>
    <property name="dob">
        <ref bean="dateOfBirth" />
    </property>
</bean>

<bean id="education01"
    class="com.rollingstone.springframework.basic.ioc.setter.injection.Education">
    <property name="educationID">
        <value>1</value>
    </property>
    <property name="degreeName">
        <value>Bachalors</value>
    </property>
    <property name="degreeDescription">
        <value>Bachelor Of Science (BS)</value>
    </property>
    <property name="started">

```



```

        <ref bean="bsStarted"/>
    </property>
    <property name="completed">
        <ref bean="bsCompleted"/>
    </property>
    <property name="hasReceivedDegree">
        <value>true</value>
    </property>
    <property name="univeersity">
        <value>American University of Reinvention</value>
    </property>
    <property name="gpa">
        <value>3.961</value>
    </property>
</bean>

<bean id="education02"
    class="com.rollingstone.springframework.basic.ioc.setter.injection.Education">
    <property name="educationID">
        <value>2</value>
    </property>
    <property name="degreeName">
        <value>Masters</value>
    </property>
    <property name="degreeDescription">
        <value>MAsters Of Science (MS)</value>
    </property>
    <property name="started">
        <ref bean="msStarted"/>
    </property>
    <property name="completed">
        <ref bean="msCompleted"/>
    </property>
    <property name="hasReceivedDegree">
        <value>true</value>
    </property>
    <property name="univeersity">
        <value>American University of Reinvention</value>
    </property>
    <property name="gpa">
        <value>3.981</value>
    </property>
</bean>

<bean id="customerWithAddress"

```

```

class="com.rollingstone.springframework.basic.ioc.setter.injection.CustomerWithA
ddress">
    <property name="customerId">
        <value>1</value>
    </property>
    <property name="firstName">
        <value>Sophia</value>
    </property>
    <property name="lastName">
        <value>Jhonson</value>
    </property>
    <property name="dob">
        <ref bean="dateOfBirth" />
    </property>
    <property name="address">
        <ref bean="address01" />
    </property>

    <property name="phoneNumbers">
        <list>
            <value>773-999-9999</value>
            <value>312-999-9999</value>
            <value>309-999-9999</value>
        </list>
    </property>

    <property name="degrees">
        <list>
            <ref bean="education01"/>
            <ref bean="education02"/>
        </list>
    </property>
</bean>

</beans>

```

1.31 –Create the OxygenAtom class in the package Fourth

```

package com.rollingstone.springframework.basic.ioc.real.life.examples.fourth;

public class OxygenAtom {

    private int numElectronos;

    private int numProtons;

```

```

private int numNeutrons;

public OxygenAtom(){

}

public OxygenAtom(int numElectrons, int numProtons, int numNeutrons) {
    super();
    this.numElectrons = numElectrons;
    this.numProtons = numProtons;
    this.numNeutrons = numNeutrons;
}

public int getNumElectrons() {
    return numElectrons;
}

public void setNumElectrons(int numElectrons) {
    this.numElectrons = numElectrons;
}

public int getNumProtons() {
    return numProtons;
}

public void setNumProtons(int numProtons) {
    this.numProtons = numProtons;
}

public int getNumNeutrons() {
    return numNeutrons;
}

public void setNumNeutrons(int numNeutrons) {
    this.numNeutrons = numNeutrons;
}

}

```

1.32 – Create the OxygenMolecule class in the package Fourth

```
package com.rollingstone.springframework.basic.ioc.real.life.examples.fourth;

import java.util.ArrayList;
import java.util.List;

public class OxygenMolecule {

    private List<OxygenAtom> atoms = new ArrayList<OxygenAtom>();

    public OxygenMolecule(List<OxygenAtom> atoms) {
        super();
        this.atoms = atoms;
    }

    public OxygenMolecule() {
        super();
    }

    public List<OxygenAtom> getAtoms() {
        return atoms;
    }

    public void setAtoms(List<OxygenAtom> atoms) {
        this.atoms = atoms;
    }

}
```

1.33 –Create the Atmosphere class in the package Fourth

```
package com.rollingstone.springframework.basic.ioc.real.life.examples.fourth;

import java.util.List;
import java.util.Queue;
import java.util.concurrent.ArrayBlockingQueue;
import java.util.concurrent.BlockingQueue;

public class Atmosphere {

    BlockingQueue<OxygenMolecule> oxygenReservoir = new
    ArrayBlockingQueue<OxygenMolecule>(100);

    public BlockingQueue<OxygenMolecule> getOxygenReservoir() {
        return oxygenReservoir;
    }

    public void setOxygenReservoir(BlockingQueue<OxygenMolecule>
oxygenReservoir) {
        this.oxygenReservoir = oxygenReservoir;
    }

    public OxygenMolecule provideOxygen() throws InterruptedException{
        return oxygenReservoir.take();
    }

    public void storeOxygen(OxygenMolecule o) throws InterruptedException{
        oxygenReservoir.offer(o);
    }

}
```

1.34 – Create the Nature class in the package Fourth

```
package com.rollingstone.springframework.basic.ioc.real.life.examples.fourth;

import java.util.ArrayList;
import java.util.List;

public class Nature {

    List<String> lands = new ArrayList<String> ();

    List<String> waterBodies = new ArrayList<String> ();

    List<Forest> forests = new ArrayList<Forest> ();

    List<Tree> trees = new ArrayList<Tree> ();

    List<Animal> animals = new ArrayList<Animal> ();

    Atmosphere atmosphere;

    public List<String> getLands() {
        return lands;
    }

    public void setLands(List<String> lands) {
        this.lands = lands;
    }

    public List<String> getWaterBodies() {
        return waterBodies;
    }

    public void setWaterBodies(List<String> waterBodies) {
        this.waterBodies = waterBodies;
    }

    public Atmosphere getAtmosphere() {
        return atmosphere;
    }

    public void setAtmosphere(Atmosphere atmosphere) {
```

```

        this.atmosphere = atmosphere;
    }

    public List<Forest> getForests() {
        return forests;
    }

    public void setForests(List<Forest> forests) {
        this.forests = forests;
        for (Forest forest : forests){
            forest.setLivingEnvironment(this);
        }
    }

    public List<Tree> getTrees() {
        return trees;
    }

    public void setTrees(List<Tree> trees) {
        this.trees = trees;
        for (Tree tree : trees){
            tree.setLivingEnvironment(this);
        }
    }

    public List<Animal> getAnimals() {
        return animals;
    }

    public void setAnimals(List<Animal> animals) {
        this.animals = animals;

        for (Animal animal : animals){
            animal.setLivingEnvironment(this);
        }
    }

    public void generateOxygen(){

        for (Tree tree : trees){
            tree.receiveSunLight();
        }
    }

```

```
        for (Forest forest : forests){  
            forest.releaseOxygen();  
        }  
    }  
}
```


1.35 – Create the Animal class in the package Fourth

```
package com.rollingstone.springframework.basic.ioc.real.life.examples.fourth;

import java.util.ArrayList;
import java.util.List;

public abstract class Animal {

    private String name;

    private String species;

    private String naturalHabitat;

    private boolean endangered;

    private int age;

    private String color;

    private Nature livingEnvironment;

    private List<OxygenMolecule> oxygen = new ArrayList<OxygenMolecule>();

    public Animal(){

    }

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public String getSpecies() {
        return species;
    }
}
```

```
public void setSpecies(String species) {  
    this.species = species;  
}
```

```
public String getNaturalHabitat() {  
    return naturalHabitat;  
}
```

```
public void setNaturalHabitat(String naturalHabitat) {  
    this.naturalHabitat = naturalHabitat;  
}
```

```
public boolean isEndangered() {  
    return endangered;  
}
```

```
public void setEndangered(boolean endangered) {  
    this.endangered = endangered;  
}
```

```
public int getAge() {  
    return age;  
}
```

```
public void setAge(int age) {  
    this.age = age;  
}
```

```
public String getColor() {
```

```

        return color;
    }

    public Nature getLivingEnvironment() {
        return livingEnvironment;
    }

    public void setLivingEnvironment(Nature livingEnvironment) {
        this.livingEnvironment = livingEnvironment;
    }

    public void setColor(String color) {
        this.color = color;
    }

    public List<OxygenMolecule> getOxygen() {
        return oxygen;
    }

    public void setOxygen(List<OxygenMolecule> oxygen) {
        this.oxygen = oxygen;
    }

    public abstract void breatheIn(OxygenMolecule oxygenMolecule) throws
    InterruptedException;

    public abstract void breatheOut();

    public abstract void breathe() throws InterruptedException;

    public abstract void eat();

    public abstract void communicate();
}

```

1.36 – Create the Tiger class in the package Fourth

```
package com.rollingstone.springframework.basic.ioc.real.life.examples.fourth;

import org.slf4j.Logger;
import org.slf4j.LoggerFactory;

public class Tiger extends Animal {

    private static final Logger logger = LoggerFactory.getLogger(Tiger.class);

    public void breathe() throws InterruptedException {
        logger.info("Draw Oxygen molecules from Air");

        breatheIn(getLivingEnvironment().getAtmosphere().getOxygenReservoir().take());
        breatheOut();
    }

    @Override
    public void eat() {
        logger.info("Find a deer!");
    }

    @Override
    public void communicate() {
        logger.info("Roar!!!!");
    }

    @Override
    public void breatheIn(OxygenMolecule oxygenMolecule) {
        logger.info("Use Oxygen molecules in cells to generate energy");
    }

    @Override
    public void breatheOut() {
        logger.info("Tiger Release CO2!");
    }

}
```

1.37 – Create the Dolphins class in the package Fourth

```
package com.rollingstone.springframework.basic.ioc.real.life.examples.fourth;

import org.slf4j.Logger;
import org.slf4j.LoggerFactory;

public class Dolphins extends Animal{

    private static final Logger logger = LoggerFactory.getLogger(Dolphins.class);

    private Nature livingEnvironment;

    public Nature getLivingEnvironment() {
        return livingEnvironment;
    }

    public void setLivingEnvironment(Nature livingEnvironment) {
        this.livingEnvironment = livingEnvironment;
    }

    public static Logger getLogger() {
        return logger;
    }

    @Override
    public void eat() {
        logger.info("Find fish!");
    }

    @Override
    public void communicate() {
        logger.info("Make Dolphin sounds!!");
    }

    @Override
    public void breatheIn(OxygenMolecule oxygenMolecule) throws
    InterruptedException {
        logger.info("Dolphins Draw Oxygen molecules from Water");
    }
}
```

```

        logger.info("Use Oxygen molecules in cells to generate energy");
    }

    @Override
    public void breatheOut() {
        logger.info("Tiger Release CO2 into water!");
    }

    @Override
    public void breathe() throws InterruptedException {
        logger.info("Draw Oxygen molecules from Air");

        breatheIn(getLivingEnvironment().getAtmosphere().getOxygenReservoir().take());
        breatheOut();
    }
}

```

1.38 – Create the Tree class in the package Fourth

```
package com.rollingstone.springframework.basic.ioc.real.life.examples.fourth;

import java.util.ArrayList;
import java.util.List;

import org.slf4j.Logger;
import org.slf4j.LoggerFactory;

public class Tree {

    private static final Logger logger = LoggerFactory.getLogger(Tree.class);

    private String name;

    private String height;

    private String age;

    private String habitat;

    private String type;

    private Nature livingEnvironment;

    public void receiveSunLight(){
        logger.info("Thank God!");

        prepareFood();
    }

    public void prepareFood(){
        logger.info("drawSunLight");
        logger.info("drawWater");
        logger.info("conductPhotoSynthesis");
        logger.info("releaseOxygen");
        drawSunLight();
        drawWater();
        conductPhotoSynthesis();
        releaseOxygen();
    }
}
```

```

public void drawSunLight(){
    logger.info("Draw Sunlight");

}

public void drawWater(){
    logger.info("Draw Water");

}

public void conductPhotoSynthesis(){
    logger.info("conductPhotoSynthesis using Chlrophill");

}

public void releaseOxygen(){
    logger.info("releaseOxygen into environment");

    List<OxygenAtom> atoms = new ArrayList<OxygenAtom>();
    OxygenAtom firstOxygenAtom = new OxygenAtom(8,8,8);
    OxygenAtom secondOxygenAtom = new OxygenAtom(8,8,8);

    atoms.add(firstOxygenAtom);
    atoms.add(secondOxygenAtom);

    OxygenMolecule oxygenMolecule = new OxygenMolecule(atoms);

    livingEnvironment.getAtmosphere().getOxygenReservoir().offer(oxygenMolecule);

}

public void breathe() throws InterruptedException{
    logger.info("Draw Oxygen");
    OxygenMolecule oxygenMolecule =
getLivingEnvironment().getAtmosphere().getOxygenReservoir().take();
    logger.info("Supply Oxygen to cells");
}

public String getName() {
    return name;
}

```



```
public void setName(String name) {  
    this.name = name;  
}
```

```
public String getHeight() {  
    return height;  
}
```

```
public void setHeight(String height) {  
    this.height = height;  
}
```

```
public String getAge() {  
    return age;  
}
```

```
public void setAge(String age) {  
    this.age = age;  
}
```

```
public String getHabitat() {  
    return habitat;  
}
```

```
public void setHabitat(String habitat) {  
    this.habitat = habitat;  
}
```

```
public String getType() {  
    return type;  
}
```

```
public void setType(String type) {  
    this.type = type;  
}
```

```
public Nature getLivingEnvironment() {  
    return livingEnvironment;  
}  
  
public void setLivingEnvironment(Nature livingEnvironment) {  
    this.livingEnvironment = livingEnvironment;  
}  
  
public static Logger getLogger() {  
    return logger;  
}  
  
}
```

1.39 – Create the Forest class in the package Fourth

```
package com.rollingstone.springframework.basic.ioc.real.life.examples.fourth;

import java.util.ArrayList;
import java.util.List;

public class Forest {

    private List<Tree> trees = new ArrayList<Tree>();

    private Nature livingEnvironment;

    public List<Tree> getTrees() {
        return trees;
    }

    public void setTrees(List<Tree> trees) {
        this.trees = trees;
    }

    public Forest(List<Tree> trees) {
        super();
        this.trees = trees;
    }

    public Forest() {
        super();
    }

    public void releaseOxygen(){
        for (Tree tree : trees){
            tree.receiveSunLight();
        }
    }

    public Nature getLivingEnvironment() {
        return livingEnvironment;
    }

    public void setLivingEnvironment(Nature livingEnvironment) {
        this.livingEnvironment = livingEnvironment;
        for (Tree tree : trees){
            tree.setLivingEnvironment(livingEnvironment);
        }
    }
}
```

}
}

}

1.40 – Create the NaturalEnvironment class in the package Fourth

```
package com.rollingstone.springframework.basic.ioc.real.life.examples.fourth;

import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;

public class NaturalEnvironment {

    Nature nature;

    public static void main(String[] args){

        ApplicationContext context = new ClassPathXmlApplicationContext("DI-
application-context-real-life.xml");

        Nature nature = (Nature) context.getBean("nature");

        nature.generateOxygen();
        nature.generateOxygen();
        nature.generateOxygen();

        for (Animal animal: nature.getAnimals()){
            try {
                animal.breathe();
            } catch (InterruptedException e) {
                // TODO Auto-generated catch block
                e.printStackTrace();
            }
        }
    }
}
```

1.41 – Create the DI-application-context-real-life.xml in the resources folder

```
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
       xmlns:util="http://www.springframework.org/schema/util"
       xmlns:tx="http://www.springframework.org/schema/tx"
       xmlns:aop="http://www.springframework.org/schema/aop"
       xsi:schemaLocation="http://www.springframework.org/schema/beans
http://www.springframework.org/schema/beans/spring-beans-2.5.xsd
http://www.springframework.org/schema/util
http://www.springframework.org/schema/util/spring-util-2.5.xsd
http://www.springframework.org/schema/tx
http://www.springframework.org/schema/tx/spring-tx-2.5.xsd
http://www.springframework.org/schema/aop
http://www.springframework.org/schema/aop/spring-aop-2.5.xsd">

    <!-- <util:constant id="X" static-field="java.lang.Integer.MAX_VALUE"/>
        <util:list id="Y" list-class="java.util.ArrayList"> <value>value1</value>
        <ref bean="X"/> </util:list> -->

    <bean id="atmosphere"

        class="com.rollingstone.springframework.basic.real.life.examples.Atmosphere">
</bean>

    <bean id="nature"
        class="com.rollingstone.springframework.basic.real.life.examples.Nature">
        <property name="atmosphere">
            <ref bean="atmosphere" />
        </property>
        <property name="forests">
            <list>
                <ref bean="forest01" />
                <ref bean="forest02" />
                <ref bean="forest03" />
                <ref bean="forest04" />
            </list>
        </property>
        <property name="trees">
            <list>
                <ref bean="tree17" />
                <ref bean="tree18" />
            </list>
        </property>
    </bean>
</beans>
```

```

        <ref bean="tree19" />
        <ref bean="tree20" />
    </list>
</property>
<property name="lands">
    <list>
        <value>North America</value>
        <value>Asia</value>
        <value>Africa</value>
        <value>South America</value>
        <value>Europe</value>
        <value>Antarktika</value>
        <value>Australia</value>
    </list>
</property>
<property name="waterBodies">
    <list>
        <value>Pacific Ocean</value>
        <value>Indian Ocean</value>
        <value>Atlantic Ocean</value>
        <value>Southern Ocean</value>
        <value>Arctic Ocean</value>
    </list>
</property>
<property name="animals">
    <list>
        <ref bean="tiger01" />
        <ref bean="tiger01" />
        <ref bean="tiger01" />
        <ref bean="dolphin01" />
        <ref bean="dolphin02" />
        <ref bean="dolphin03" />
    </list>
</property>
</bean>

<bean id="forest01"
    class="com.rollingstone.springframework.basic.real.life.examples.Forest">
    <property name="trees">
        <list>
            <ref bean="tree01" />
            <ref bean="tree02" />
            <ref bean="tree03" />
            <ref bean="tree04" />
        </list>
    </property>
</bean>

```

```

        </property>
    </bean>

    <bean id="forest02"
        class="com.rollingstone.springframework.basic.real.life.examples.Forest">
        <property name="trees">
            <list>
                <ref bean="tree05" />
                <ref bean="tree06" />
                <ref bean="tree07" />
                <ref bean="tree08" />
            </list>
        </property>
    </bean>

    <bean id="forest03"
        class="com.rollingstone.springframework.basic.real.life.examples.Forest">
        <property name="trees">
            <list>
                <ref bean="tree09" />
                <ref bean="tree10" />
                <ref bean="tree11" />
                <ref bean="tree12" />
            </list>
        </property>
    </bean>

    <bean id="forest04"
        class="com.rollingstone.springframework.basic.real.life.examples.Forest">
        <property name="trees">
            <list>
                <ref bean="tree13" />
                <ref bean="tree14" />
                <ref bean="tree15" />
                <ref bean="tree16" />
            </list>
        </property>
    </bean>

    <!--    <util:map id="Z" map-class="java.util.HashMap">
        <entry key="x" value="y" />
        <entry key="y">
            <ref bean="X" />
        </entry>
    </util:map>

```



```

<util:properties id="P" location="classpath:Main.properties" />

<bean id="simple" class="SimpleBean" />

<util:property-path id="Q" path="simple.name" />

<util:set id="S" set-class="java.util.HashSet">
    <value>foo</value>
    <ref bean="X" />
</util:set> -->

<bean id="tiger01"
    class="com.rollingstone.springframework.basic.real.life.examples.Tiger">
    <property name="name" value="Royal Bengal Tiger"></property>
    <property name="species" value="Carnivore"></property>
    <property name="naturalHabitat" value="Mangrove Forest,
Sunderbans"></property>
    <property name="endangered" value="true" />
    <property name="color" value="Orange and Black stripes" />
</bean>

<bean id="tiger02"
    class="com.rollingstone.springframework.basic.real.life.examples.Tiger">
    <property name="name" value="Royal Bengal Tiger"></property>
    <property name="species" value="Carnivore"></property>
    <property name="naturalHabitat" value="Mangrove Forest,
Sunderbans"></property>
    <property name="endangered" value="true" />
    <property name="color" value="Orange and Black stripes" />
</bean>

<bean id="tiger03"
    class="com.rollingstone.springframework.basic.real.life.examples.Tiger">
    <property name="name" value="Royal Bengal Tiger"></property>
    <property name="species" value="Carnivore"></property>
    <property name="naturalHabitat" value="Mangrove Forest,
Sunderbans"></property>
    <property name="endangered" value="true" />
    <property name="color" value="Orange and Black stripes" />
</bean>

<bean id="dolphin01"
    class="com.rollingstone.springframework.basic.real.life.examples.Dolphins">

```

```

        <property name="name" value="Wonderful Dolphins"></property>
        <property name="species" value="Carnivore"></property>
        <property name="naturalHabitat" value="Oceans and Bays"></property>
        <property name="endangered" value="false" />
        <property name="color" value="Black and White" />
    </bean>

    <bean id="dolphin02"
        class="com.rollingstone.springframework.basic.real.life.examples.Dolphins">
        <property name="name" value="Wonderful Dolphins"></property>
        <property name="species" value="Carnivore"></property>
        <property name="naturalHabitat" value="Oceans and Bays"></property>
        <property name="endangered" value="false" />
        <property name="color" value="Black and White" />
    </bean>

    <bean id="dolphin03"
        class="com.rollingstone.springframework.basic.real.life.examples.Dolphins">
        <property name="name" value="Wonderful Dolphins"></property>
        <property name="species" value="Carnivore"></property>
        <property name="naturalHabitat" value="Oceans and Bays"></property>
        <property name="endangered" value="false" />
        <property name="color" value="Black and White" />
    </bean>

    <bean id="tree01"
        class="com.rollingstone.springframework.basic.real.life.examples.Tree">
        <property name="name" value="Oak"></property>
        <property name="height" value="10 Meters"></property>
        <property name="age" value="70"></property>
        <property name="habitat" value="Europe and North America" />
        <property name="type" value="Tropical" />
    </bean>

    <bean id="tree02"
        class="com.rollingstone.springframework.basic.real.life.examples.Tree">
        <property name="name" value="Willow"></property>
        <property name="height" value="7 Meters"></property>
        <property name="age" value="70"></property>
        <property name="habitat" value="Europe and North America" />
        <property name="type" value="Tropical" />
    </bean>

    <bean id="tree03"
        class="com.rollingstone.springframework.basic.real.life.examples.Tree">

```

```

        <property name="name" value="Mango"></property>
        <property name="height" value="5 Meters"></property>
        <property name="age" value="70"></property>
        <property name="habitat" value="India, Mexico, China, Latin America" />
        <property name="type" value="Tropical" />
    </bean>

    <bean id="tree04"
        class="com.rollingstone.springframework.basic.real.life.examples.Tree">
        <property name="name" value="Teak"></property>
        <property name="height" value="25 Meters"></property>
        <property name="age" value="70"></property>
        <property name="habitat" value="India, Malaysia, Indonesia" />
        <property name="type" value="Tropical" />
    </bean>

    <bean id="tree05"
        class="com.rollingstone.springframework.basic.real.life.examples.Tree">
        <property name="name" value="Oak"></property>
        <property name="height" value="10 Meters"></property>
        <property name="age" value="70"></property>
        <property name="habitat" value="Europe and North America" />
        <property name="type" value="Tropical" />
    </bean>

    <bean id="tree06"
        class="com.rollingstone.springframework.basic.real.life.examples.Tree">
        <property name="name" value="Willow"></property>
        <property name="height" value="7 Meters"></property>
        <property name="age" value="70"></property>
        <property name="habitat" value="Europe and North America" />
        <property name="type" value="Tropical" />
    </bean>

    <bean id="tree07"
        class="com.rollingstone.springframework.basic.real.life.examples.Tree">
        <property name="name" value="Mango"></property>
        <property name="height" value="5 Meters"></property>
        <property name="age" value="70"></property>
        <property name="habitat" value="India, Mexico, China, Latin America" />
        <property name="type" value="Tropical" />
    </bean>

    <bean id="tree08"
        class="com.rollingstone.springframework.basic.real.life.examples.Tree">

```

```

        <property name="name" value="Teak"></property>
        <property name="height" value="25 Meters"></property>
        <property name="age" value="70"></property>
        <property name="habitat" value="India, Malaysia, Indonesia" />
        <property name="type" value="Tropical" />
    </bean>

    <bean id="tree09"
        class="com.rollingstone.springframework.basic.real.life.examples.Tree">
        <property name="name" value="Oak"></property>
        <property name="height" value="10 Meters"></property>
        <property name="age" value="70"></property>
        <property name="habitat" value="Europe and North America" />
        <property name="type" value="Tropical" />
    </bean>

    <bean id="tree10"
        class="com.rollingstone.springframework.basic.real.life.examples.Tree">
        <property name="name" value="Willow"></property>
        <property name="height" value="7 Meters"></property>
        <property name="age" value="70"></property>
        <property name="habitat" value="Europe and North America" />
        <property name="type" value="Tropical" />
    </bean>

    <bean id="tree11"
        class="com.rollingstone.springframework.basic.real.life.examples.Tree">
        <property name="name" value="Mango"></property>
        <property name="height" value="5 Meters"></property>
        <property name="age" value="70"></property>
        <property name="habitat" value="India, Mexico, China, Latin America" />
        <property name="type" value="Tropical" />
    </bean>

    <bean id="tree12"
        class="com.rollingstone.springframework.basic.real.life.examples.Tree">
        <property name="name" value="Teak"></property>
        <property name="height" value="25 Meters"></property>
        <property name="age" value="70"></property>
        <property name="habitat" value="India, Malaysia, Indonesia" />
        <property name="type" value="Tropical" />
    </bean>

    <bean id="tree13"
        class="com.rollingstone.springframework.basic.real.life.examples.Tree">

```

```

    <property name="name" value="Oak"></property>
    <property name="height" value="10 Meters"></property>
    <property name="age" value="70"></property>
    <property name="habitat" value="Europe and North America" />
    <property name="type" value="Tropical" />
</bean>

<bean id="tree14"
    class="com.rollingstone.springframework.basic.real.life.examples.Tree">
    <property name="name" value="Willow"></property>
    <property name="height" value="7 Meters"></property>
    <property name="age" value="70"></property>
    <property name="habitat" value="Europe and North America" />
    <property name="type" value="Tropical" />
</bean>

<bean id="tree15"
    class="com.rollingstone.springframework.basic.real.life.examples.Tree">
    <property name="name" value="Mango"></property>
    <property name="height" value="5 Meters"></property>
    <property name="age" value="70"></property>
    <property name="habitat" value="India, Mexico, China, Latin America" />
    <property name="type" value="Tropical" />
</bean>

<bean id="tree16"
    class="com.rollingstone.springframework.basic.real.life.examples.Tree">
    <property name="name" value="Teak"></property>
    <property name="height" value="25 Meters"></property>
    <property name="age" value="70"></property>
    <property name="habitat" value="India, Malaysia, Indonesia" />
    <property name="type" value="Tropical" />
</bean>

<bean id="tree17"
    class="com.rollingstone.springframework.basic.real.life.examples.Tree">
    <property name="name" value="Oak"></property>
    <property name="height" value="10 Meters"></property>
    <property name="age" value="70"></property>
    <property name="habitat" value="Europe and North America" />
    <property name="type" value="Tropical" />
</bean>

<bean id="tree18"

```

```
class="com.rollingstone.springframework.basic.real.life.examples.Tree">
<property name="name" value="Willow"></property>
<property name="height" value="7 Meters"></property>
<property name="age" value="70"></property>
<property name="habitat" value="Europe and North America" />
<property name="type" value="Tropical" />
</bean>
```

```
<bean id="tree19"
class="com.rollingstone.springframework.basic.real.life.examples.Tree">
<property name="name" value="Mango"></property>
<property name="height" value="5 Meters"></property>
<property name="age" value="70"></property>
<property name="habitat" value="India, Mexico, China, Latin America" />
<property name="type" value="Tropical" />
</bean>
```

```
<bean id="tree20"
class="com.rollingstone.springframework.basic.real.life.examples.Tree">
<property name="name" value="Teak"></property>
<property name="height" value="25 Meters"></property>
<property name="age" value="70"></property>
<property name="habitat" value="India, Malaysia, Indonesia" />
<property name="type" value="Tropical" />
</bean>
```

```
</beans>
```

1.42 – Create the Airline class in the package Fifth

```
package com.rollingstone.springframework.aop.example.fifth;

import java.time.LocalDate;

public class Airline {

    private long airlineID;

    private String airlineCode;

    private String airlineName;

    private LocalDate startedOperation;

    private String centralHub;

    public long getAirlineID() {
        return airlineID;
    }

    public void setAirlineID(long airlineID) {
        this.airlineID = airlineID;
    }

    public String getAirlineCode() {
        return airlineCode;
    }

    public void setAirlineCode(String airlineCode) {
        this.airlineCode = airlineCode;
    }

    public String getAirlineName() {
        return airlineName;
    }

    public void setAirlineName(String airlineName) {
        this.airlineName = airlineName;
    }

    public LocalDate getStartedOperation() {
        return startedOperation;
    }
}
```

```

    public void setStartedOperation(LocalDate startedOperation) {
        this.startedOperation = startedOperation;
    }

    public String getCentralHub() {
        return centralHub;
    }

    public void setCentralHub(String centralHub) {
        this.centralHub = centralHub;
    }

    public Airline(long airlineID, String airlineCode, String airlineName, LocalDate
startedOperation,
        String centralHub) {
        super();
        this.airlineID = airlineID;
        this.airlineCode = airlineCode;
        this.airlineName = airlineName;
        this.startedOperation = startedOperation;
        this.centralHub = centralHub;
    }

    public Airline() {
        super();
    }

}

```


1.43 – Create the NaturalEnvironment class in the package Fifth

```
package com.rollingstone.springframework.aop.example.fifth;

import java.time.LocalDate;

public class Airplane {

    private long planeID;

    private String planeType;

    private int numFlights;

    private LocalDate commissionDate;

    public long getPlaneID() {
        return planeID;
    }

    public void setPlaneID(long planeID) {
        this.planeID = planeID;
    }

    public String getPlaneType() {
        return planeType;
    }

    public void setPlaneType(String planeType) {
        this.planeType = planeType;
    }

    public int getNumFlights() {
        return numFlights;
    }

    public void setNumFlights(int numFlights) {
        this.numFlights = numFlights;
    }

    public LocalDate getCommissionDate() {
        return commissionDate;
    }
}
```

```

    public void setCommissionDate(LocalDate commissionDate) {
        this.commissionDate = commissionDate;
    }

    public Airplane(long planeID, int numFlights, LocalDate commissionDate) {
        super();
        this.planeID = planeID;
        this.numFlights = numFlights;
        this.commissionDate = commissionDate;
    }

    public Airplane() {
        super();
    }

    public Airplane(long planeID, String planeType, int numFlights, LocalDate
commissionDate) {
        super();
        this.planeID = planeID;
        this.planeType = planeType;
        this.numFlights = numFlights;
        this.commissionDate = commissionDate;
    }

    @Override
    public String toString() {
        return "Airplane [planeID=" + planeID + ", planeType=" + planeType + ",
numFlights=" + numFlights
        + ", commissionDate=" + commissionDate + "];"
    }

}

```

1.44 – Create the Airport class in the package Fifth

```
package com.rollingstone.springframework.aop.example.fifth;

public class Airport {

    private long airportID;

    private String airportCode;

    private String airportName;

    private String country;

    private String city;

    private String address;

    public long getAirportID() {
        return airportID;
    }

    public void setAirportID(long airportID) {
        this.airportID = airportID;
    }

    public String getAirportCode() {
        return airportCode;
    }

    public void setAirportCode(String airportCode) {
        this.airportCode = airportCode;
    }

    public String getAirportName() {
        return airportName;
    }

    public void setAirportName(String airportName) {
        this.airportName = airportName;
    }

    public String getCountry() {
        return country;
    }
}
```

```

    }

    public void setCountry(String country) {
        this.country = country;
    }

    public String getCity() {
        return city;
    }

    public void setCity(String city) {
        this.city = city;
    }

    public String getAddress() {
        return address;
    }

    public void setAddress(String address) {
        this.address = address;
    }

    public Airport(long airportID, String airportCode, String airportName, String
country, String city,
        String address) {
        super();
        this.airportID = airportID;
        this.airportCode = airportCode;
        this.airportName = airportName;
        this.country = country;
        this.city = city;
        this.address = address;
    }

    public Airport() {
        super();
    }

    @Override
    public String toString() {
        return "Airport [airportID=" + airportID + ", airportCode=" + airportCode + ",
airportName=" + airportName
            + ", country=" + country + ", city=" + city + ", address=" + address + "];"
    }

```

```
}
```

1.45 – Create the Flight class in the package Fifth

```
package com.rollingstone.springframework.aop.example.fifth;
```

```
import java.time.LocalDateTime;  
import java.util.ArrayList;  
import java.util.List;
```

```
public class Flight {  
  
    private long flightID;  
  
    private String flightCode;  
  
    private Airport fromAirport;  
  
    private Airport destinationAirport;  
  
    private LocalDateTime departureTime;  
  
    private LocalDateTime arrivalTime;  
  
    Airplane airplane;  
  
    private List<Pilot> pilots = new ArrayList<Pilot>();  
  
    private List<FlightAttendant> flightAttendants = new  
ArrayList<FlightAttendant>();  
  
    public long getFlightID() {  
        return flightID;  
    }  
  
    public void setFlightID(long flightID) {  
        this.flightID = flightID;  
    }  
  
    public String getFlightCode() {  
        return flightCode;  
    }  
}
```

```

}

public void setFlightCode(String flightCode) {
    this.flightCode = flightCode;
}

public Airport getFromAirport() {
    return fromAirport;
}

public void setFromAirport(Airport fromAirport) {
    this.fromAirport = fromAirport;
}

public Airport getDestinationAirport() {
    return destinationAirport;
}

public void setDestinationAirport(Airport destinationAirport) {
    this.destinationAirport = destinationAirport;
}

public LocalDateTime getDepartureTime() {
    return departureTime;
}

public void setDepartureTime(LocalDateTime departureTime) {
    this.departureTime = departureTime;
}

public LocalDateTime getArrivalTime() {
    return arrivalTime;
}

public void setArrivalTime(LocalDateTime arrivalTime) {
    this.arrivalTime = arrivalTime;
}

public List<Pilot> getPilots() {
    return pilots;
}

public void setPilots(List<Pilot> pilots) {
    this.pilots = pilots;
}

```

```

    public Flight(long flightID, String flightCode, Airport fromAirport, Airport
destinationAirport,
        LocalDateTime departureTime, LocalDateTime arrivalTime, Airplane
airplane, List<Pilot> pilots,
        List<FlightAttendant> flightAttendants) {
        super();
        this.flightID = flightID;
        this.flightCode = flightCode;
        this.fromAirport = fromAirport;
        this.destinationAirport = destinationAirport;
        this.departureTime = departureTime;
        this.arrivalTime = arrivalTime;
        this.airplane = airplane;
        this.pilots = pilots;
        this.flightAttendants = flightAttendants;
    }

    @Override
    public String toString() {
        return "Flight [flightID=" + flightID + ", flightCode=" + flightCode + ",
fromAirport=" + fromAirport
            + ", destinationAirport=" + destinationAirport + ", departureTime=" +
departureTime + ", arrivalTime="
            + arrivalTime + ", pilots=" + pilots + ", flightAttendants=" +
flightAttendants + "]";
    }

    public Flight() {
        super();
    }

}

```

1.46 – Create the FlightAttendant class in the package Fifth

```
package com.rollingstone.springframework.aop.example.fifth;

import java.time.LocalDate;

public class FlightAttendant {

    private long flightAttendantID;

    private String flightAttendantCode;

    private String firstName;

    private String lastName;

    private String middleName;

    private String socialSecurityNumber;

    private LocalDate dateOfBirth;

    private int age;

    private String sex;

    public long getFlightAttendantID() {
        return flightAttendantID;
    }

    public void setFlightAttendantID(long flightAttendantID) {
        this.flightAttendantID = flightAttendantID;
    }

    public String getFlightAttendantCode() {
        return flightAttendantCode;
    }

    public void setFlightAttendantCode(String flightAttendantCode) {
        this.flightAttendantCode = flightAttendantCode;
    }

    public String getFirstName() {
        return firstName;
    }
}
```



```
}

public void setFirstName(String firstName) {
    this.firstName = firstName;
}

public String getLastName() {
    return lastName;
}

public void setLastName(String lastName) {
    this.lastName = lastName;
}

public String getMiddleName() {
    return middleName;
}

public void setMiddleName(String middleName) {
    this.middleName = middleName;
}

public String getSocialSecurityNumber() {
    return socialSecurityNumber;
}

public void setSocialSecurityNumber(String socialSecurityNumber) {
    this.socialSecurityNumber = socialSecurityNumber;
}

public LocalDate getDateOfBirth() {
    return dateOfBirth;
}

public void setDateOfBirth(LocalDate dateOfBirth) {
    this.dateOfBirth = dateOfBirth;
}

public int getAge() {
    return age;
}

public void setAge(int age) {
```

```

        this.age = age;
    }

    public String getSex() {
        return sex;
    }

    public void setSex(String sex) {
        this.sex = sex;
    }

    public FlightAttendant(long flightAttendantID, String flightAttendantCode,
String firstName, String lastName,
        String middleName, String socialSecurityNumber, LocalDate dateOfBirth,
int age, String sex) {
        super();
        this.flightAttendantID = flightAttendantID;
        this.flightAttendantCode = flightAttendantCode;
        this.firstName = firstName;
        this.lastName = lastName;
        this.middleName = middleName;
        this.socialSecurityNumber = socialSecurityNumber;
        this.dateOfBirth = dateOfBirth;
        this.age = age;
        this.sex = sex;
    }

    public FlightAttendant() {
        super();
    }

    @Override
    public String toString() {
        return "FlightAttendant [flightAttendantID=" + flightAttendantID + ",
flightAttendantCode="
            + flightAttendantCode + ", firstName=" + firstName + ", lastName=" +
lastName + ", middleName="
            + middleName + ", socialSecurityNumber=" + socialSecurityNumber +
", dateOfBirth=" + dateOfBirth
            + ", age=" + age + ", sex=" + sex + "]";
    }
}

```

1.47 – Create the Pilot class in the package Fifth

```
package com.rollingstone.springframework.aop.example.fifth;

import java.time.LocalDate;

public class Pilot {

    private long pilotID;

    private String firstName;

    private String lastName;

    private String middleName;

    private String socialSecurityNumber;

    private LocalDate dateOfBirth;

    private int age;

    private String sex;

    private int flyingHours;

    public long getPilotID() {
        return pilotID;
    }

    public void setPilotID(long pilotID) {
        this.pilotID = pilotID;
    }

    public String getFirstName() {
        return firstName;
    }

    public void setFirstName(String firstName) {
        this.firstName = firstName;
    }

    public String getLastName() {
        return lastName;
    }
}
```

```

    }

    public void setLastName(String lastName) {
        this.lastName = lastName;
    }

    public String getMiddleName() {
        return middleName;
    }

    public void setMiddleName(String middleName) {
        this.middleName = middleName;
    }

    public String getSocialSecurityNumber() {
        return socialSecurityNumber;
    }

    public void setSocialSecurityNumber(String socialSecurityNumber) {
        this.socialSecurityNumber = socialSecurityNumber;
    }

    public LocalDate getDateOfBirth() {
        return dateOfBirth;
    }

    public void setDateOfBirth(LocalDate dateOfBirth) {
        this.dateOfBirth = dateOfBirth;
    }

    public int getAge() {
        return age;
    }

    public void setAge(int age) {
        this.age = age;
    }

    public String getSex() {
        return sex;
    }

    public void setSex(String sex) {

```

```

        this.sex = sex;
    }

    public int getFlyingHours() {
        return flyingHours;
    }

    public void setFlyingHours(int flyingHours) {
        this.flyingHours = flyingHours;
    }

    public Pilot(long pilotID, String firstName, String lastName, String middleName,
String socialSecurityNumber,
        LocalDate dateOfBirth, int age,
        String sex, int flyingHours) {
        super();
        this.pilotID = pilotID;
        this.firstName = firstName;
        this.lastName = lastName;
        this.middleName = middleName;
        this.socialSecurityNumber = socialSecurityNumber;
        this.dateOfBirth = dateOfBirth;
        this.age = age;
        this.sex = sex;
        this.flyingHours = flyingHours;
    }

    public Pilot() {
        super();
    }

    @Override
    public String toString() {
        return "Pilot [pilotID=" + pilotID + ", firstName=" + firstName + ", lastName="
+ lastName + ", middleName="
        + middleName + ", socialSecurityNumber=" + socialSecurityNumber +
", dateOfBirth=" + dateOfBirth
        + ", age=" + age + ", sex=" + sex + ", flyingHours=" + flyingHours + "]";
    }

}

```

1.48 – Create the SecurityOfficer class in the package Fifth

```
package com.rollingstone.springframework.aop.example.fifth;

import java.time.LocalDate;

public class SecurityOfficer {

    private long officeID;

    private String officercode;

    private String firstName;

    private String lastName;

    private String middleName;

    private String socialSecurityNumber;

    private LocalDate dateOfBirth;

    Airport homeAirport;

    private int age;

    private String sex;

    public long getOfficeID() {
        return officeID;
    }

    public void setOfficeID(long officeID) {
        this.officeID = officeID;
    }

    public String getOfficercode() {
        return officercode;
    }

    public void setOfficercode(String officercode) {
        this.officercode = officercode;
    }
}
```

```

public String getFirstName() {
    return firstName;
}

public void setFirstName(String firstName) {
    this.firstName = firstName;
}

public String getLastName() {
    return lastName;
}

public void setLastName(String lastName) {
    this.lastName = lastName;
}

public String getMiddleName() {
    return middleName;
}

public void setMiddleName(String middleName) {
    this.middleName = middleName;
}

public String getSocialSecurityNumber() {
    return socialSecurityNumber;
}

public void setSocialSecurityNumber(String socialSecurityNumber) {
    this.socialSecurityNumber = socialSecurityNumber;
}

public LocalDate getDateOfBirth() {
    return dateOfBirth;
}

public void setDateOfBirth(LocalDate dateOfBirth) {
    this.dateOfBirth = dateOfBirth;
}

public int getAge() {
    return age;
}

```

```

public void setAge(int age) {
    this.age = age;
}

```

```

public String getSex() {
    return sex;
}

```

```

public void setSex(String sex) {
    this.sex = sex;
}

```

```

public SecurityOfficer() {
    super();
}

```

```

public Airport getHomeAirport() {
    return homeAirport;
}

```

```

public void setHomeAirport(Airport homeAirport) {
    this.homeAirport = homeAirport;
}

```

```

public SecurityOfficer(long officeID, String officercode, String firstName, String
lastName, String middleName,
    String socialSecurityNumber, LocalDate dateOfBirth, Airport
homeAirport, int age, String sex) {
    super();
    this.officeID = officeID;
    this.officercode = officercode;
    this.firstName = firstName;
    this.lastName = lastName;
    this.middleName = middleName;
    this.socialSecurityNumber = socialSecurityNumber;
    this.dateOfBirth = dateOfBirth;
    this.homeAirport = homeAirport;
    this.age = age;
    this.sex = sex;
}

```

@Override


```

    public String toString() {
        return "SecurityOfficer [officeID=" + officeID + ", officercode=" + officercode + ",
firstName=" + firstName
        + ", lastName=" + lastName + ", middleName=" + middleName + ",
socialSecurityNumber="
        + socialSecurityNumber + ", dateOfBirth=" + dateOfBirth + ",
homeAirport=" + homeAirport + ", age="
        + age + ", sex=" + sex + "];
    }

}

```

1.49 – Create the Traveller class in the package Fifth

```
package com.rollingstone.springframework.aop.example.fifth;

import java.time.LocalDate;

import org.slf4j.Logger;
import org.slf4j.LoggerFactory;

import
com.rollingstone.springframework.basic.ioc.constructor.injection.first.TestSimpleSpring
IOC;

public class Traveller {

    private static final Logger logger = LoggerFactory.getLogger(Traveller.class);

    private long travellerID;

    private String firstName;

    private String lastName;

    private String middleName;

    private String socialSecurityNumber;

    private LocalDate dateOfBirth;

    Airport travellingFrom;

    Airport travellingTo;

    private int age;

    private String sex;

    private String foodChoice;

    public long getTravellerID() {
        return travellerID;
    }

    public void setTravellerID(long travellerID) {
        this.travellerID = travellerID;
    }
}
```

```

    }

    public String getFirstName() {
        return firstName;
    }

    public void setFirstName(String firstName) {
        this.firstName = firstName;
    }

    public String getLastName() {
        return lastName;
    }

    public void setLastName(String lastName) {
        this.lastName = lastName;
    }

    public String getMiddleName() {
        return middleName;
    }

    public void setMiddleName(String middleName) {
        this.middleName = middleName;
    }

    public String getSocialSecurityNumber() {
        return socialSecurityNumber;
    }

    public void setSocialSecurityNumber(String socialSecurityNumber) {
        this.socialSecurityNumber = socialSecurityNumber;
    }

    public LocalDate getDateOfBirth() {
        return dateOfBirth;
    }

    public void setDateOfBirth(LocalDate dateOfBirth) {
        this.dateOfBirth = dateOfBirth;
    }

    public Airport getTravellingFrom() {
        return travellingFrom;
    }

```

```
public void setTravellingFrom(Airport travellingFrom) {  
    this.travellingFrom = travellingFrom;  
}
```

```
public Airport getTravellingTo() {  
    return travellingTo;  
}
```

```
public void setTravellingTo(Airport travellingTo) {  
    this.travellingTo = travellingTo;  
}
```

```
public int getAge() {  
    return age;  
}
```

```
public void setAge(int age) {  
    this.age = age;  
}
```

```
public String getSex() {  
    return sex;  
}
```

```
public void setSex(String sex) {  
    this.sex = sex;  
}
```

```
public String getFoodChoice() {  
    return foodChoice;  
}
```

```
public void setFoodChoice(String foodChoice) {  
    this.foodChoice = foodChoice;  
}
```

```
public Traveller(long travellerID, String firstName, String lastName, String  
middleName,  
    String socialSecurityNumber, LocalDate dateOfBirth, Airport  
travellingFrom, Airport travellingTo,
```

```

        int age, String sex, String foodChoice) {
    super();
    this.travellerID = travellerID;
    this.firstName = firstName;
    this.lastName = lastName;
    this.middleName = middleName;
    this.socialSecurityNumber = socialSecurityNumber;
    this.dateOfBirth = dateOfBirth;
    this.travellingFrom = travellingFrom;
    this.travellingTo = travellingTo;
    this.age = age;
    this.sex = sex;
    this.foodChoice = foodChoice;
}

public Traveller() {
    super();
}

@Override
public String toString() {
    return "Traveller [travellerID=" + travellerID + ", firstName=" + firstName + ",
lastName=" + lastName
        + ", middleName=" + middleName + ", socialSecurityNumber=" +
socialSecurityNumber + ", dateOfBirth="
        + dateOfBirth + ", travellingFrom=" + travellingFrom + ",
travellingTo=" + travellingTo
        + ", age=" + age + ", sex=" + sex + ", foodChoice=" + foodChoice
        + "]\n";
}
}

```

1.50 – Create the AirportOperations class in the package Fifth

```
package com.rollingstone.springframework.aop.example.fifth;

public interface AirportOperations {

    public void checkin(Traveller t) throws AirportOperationException;

    public void getBoradingPass(Traveller t) throws AirportOperationException;

    public void checkInLuggage(Traveller t) throws AirportOperationException;

    public void goForSecurityCheck(Traveller t) throws AirportOperationException;

    public void deplane(Traveller t) throws AirportOperationException;

    public void collectHandLuggage(Traveller t) throws AirportOperationException;

    public void collecCheckInLuggage(Traveller t) throws
AirportOperationException;

    public void goThroughImmigrationAndCustomsCheck(Traveller t) throws
AirportOperationException;

    public void reprintBoardingPass(Traveller t) throws AirportOperationException;

}
```

1.51 – Create the AirportOperationsImpl class in the package Fifth

```
package com.rollingstone.springframework.aop.example.fifth;

import org.slf4j.Logger;
import org.slf4j.LoggerFactory;

public class AirportOperationsImpl implements AirportOperations {

    private static final Logger logger =
        LoggerFactory.getLogger(AirportOperationsImpl.class);

    public void checkin(Traveller t) {
        logger.info("Checking via online or at the Airport counter " +
            t.getFirstName() + " " + t.getLastName() + " ID : "+ t.getTravellerID());
    }

    public void getBoradingPass(Traveller t) {
        logger.info("Receive boarding pass and keep it with passports "+
            t.getFirstName() + " " + t.getLastName() + " ID : "+ t.getTravellerID());
    }

    public void checkInLuggage(Traveller t) {
        logger.info("Provide Suitcases for weight checking and if ok check them in. " +
            t.getFirstName() + " " + t.getLastName() + " ID : "+ t.getTravellerID());
    }

    public void goForSecurityCheck(Traveller t) {
        logger.info("Stand in Queue for the security check. " + t.getFirstName() + " " +
            t.getLastName() + " ID : "+ t.getTravellerID());
    }

    public void deplane(Traveller t) {
        logger.info("Stand in Queue to get off from the plane. " + t.getFirstName() + " "
            + t.getLastName() + " ID : "+ t.getTravellerID());
    }

    public void collectHandLuggage(Traveller t) {
        logger.info("Take hand luggage with you. " + t.getFirstName() + " " +
            t.getLastName() + " ID : "+ t.getTravellerID());
    }

    public void collecCheckInLuggage(Traveller t) {
        logger.info("Find luggage carusel and collect checked in luggage. " +
            t.getFirstName() + " " + t.getLastName() + " ID : "+ t.getTravellerID());
    }
}
```

```

    }

    public void goThroughImmigrationAndCustomsCheck(Traveller t) throws
AirportOperationException {
        logger.info("Present passport and other documents for immigration check. " +
t.getFirstName() + " " + t.getLastName() + " ID : "+ t.getTravellerID());

        if (t.getTravellerID() == 15){
            throw new AirportOperationException("Expired Visa");
        }
    }

    public void reprintBoardingPass(Traveller t) {
        logger.info("Enter ticket information to reprint." + t.getFirstName());
    }

}

```


1.52 – Create the `AirportOperationException` class in the package `Fifth`

```
package com.rollingstone.springframework.aop.example.fifth;

public class AirportOperationException extends Exception {

    public AirportOperationException(){
        super();
    }

    public AirportOperationException(String message){
        super(message);
    }
}
```

1.53 – Create the AirportOperationCommonTracker class in the package Fifth

```
package com.rollingstone.springframework.aop.example.fifth;

import org.aspectj.lang.JoinPoint;
import org.aspectj.lang.annotation.AfterReturning;
import org.aspectj.lang.annotation.AfterThrowing;
import org.aspectj.lang.annotation.Aspect;
import org.aspectj.lang.annotation.Before;
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;

@Aspect
public class AirportOperationCommonTracker {

    private static final Logger logger =
LoggerFactory.getLogger(AirportOperationCommonTracker.class);

    //@Before("execution(*
com.rollingstone.springframework.aop.example.Traveller.goForSecurityCheck(..)")
    @Before("execution(*
com.rollingstone.springframework.aop.example.AirportOperations.goForSecurityChec
k(..)")
    public void performSecurityCheckForTraveller(JoinPoint joinPoint){
        logger.info("AOP!!!!!!!!!!!! :- Check Passenger for security clearance!");
    }

    // @Before("execution(*
com.rollingstone.springframework.aop.example.Traveller.checkInLuggage(..)")
    @Before("execution(*
com.rollingstone.springframework.aop.example.AirportOperations.checkInLuggage(..)
")
    public void performSecurityCheckforBaggage(JoinPoint joinPoint){
        logger.info("AOP!!!!!!!!!!!! :- Check Passenger's luggage for security clearance!");
    }

    // @Before("execution(*
com.rollingstone.springframework.aop.example.Traveller.goForSecurityCheck(..)")
    @Before("execution(*
com.rollingstone.springframework.aop.example.AirportOperations.goForSecurityChec
k(..)")
    public void performSecurityCheckforHandBaggage(JoinPoint joinPoint){
        logger.info("AOP!!!!!!!!!!!! :- Check Passenger's hand luggage for security
clearance!");
    }
}
```

```
}
```

```
@AfterReturning(  
    pointcut = "execution(*  
com.rollingstone.springframework.aop.example.AirportOperations.goThroughImmigra  
tionAndCustomsCheck(..))",  
    returning= "result")  
public void performImmigrationCheck(JoinPoint jp, Object result){  
  
    logger.info("Airport Function : " + jp.getSignature().getName());  
    logger.info("AOP!!!!!!!!!!!! :- Check Passenger's Passport and Visa and / or  
Permanent Resident Card!");  
  
    if (result != null){  
        logger.info("Welcome to the country :"+result.toString());  
    }  
}
```

```
@AfterReturning(  
    pointcut = "execution(*  
com.rollingstone.springframework.aop.example.AirportOperations.goThroughImmigra  
tionAndCustomsCheck(..))",  
    returning= "result")  
public void performCustomsCheckforBaggage(JoinPoint jp, Object result){  
    logger.info("Airport Function : " + jp.getSignature().getName());  
  
    logger.info("AOP!!!!!!!!!!!! :- Check Passenger's Luggage for customs  
clearance!");  
    if (result != null){  
        logger.info("Your luggage is all clear :"+result.toString());  
    }  
}
```

```
@AfterThrowing(  
    pointcut = "execution(*  
com.rollingstone.springframework.aop.example.AirportOperations.AirportOperationx  
Exception(..))",  
    throwing= "error")  
public void logAfterThrowing(JoinPoint joinPoint, Throwable error) {  
  
    System.out.println("logAfterThrowing() is running!");  
}
```

```

        System.out.println("Airport Operation fone wrong : " +
joinPoint.getSignature().getName());
        System.out.println("Exception : " + error);
        System.out.println("*****");

    }

    /*@Before("execution(*
com.rollingstone.springframework.aop.example.AirportOperationsImpl.checkin(..)")
    public void assistedCheckin(){

    }*/

    /*@Before("execution(*
com.rollingstone.springframework.aop.example.AirportOperationsImpl.reprintBoardin
gPass(..)")
    public void reprintBoardingPass(){

    }*/

    public void refuelPlanes(){

    }

    public void protectAirport(){

    }

    public void displayFlightInformation(){

    }

}

```

1.54 – Create the RunAirportOperation class in the package Fifth

```
package com.rollingstone.springframework.aop.example.fifth;

import java.util.List;

import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;

public class RunAirportOperation {

    /* @Autowired
       AirportOperationCommonTracker airportServices;*/

    private static final Logger logger =
        LoggerFactory.getLogger(RunAirportOperation.class);

    public static void main(String[] args) throws AirportOperationException{

        ApplicationContext context = new
        ClassPathXmlApplicationContext("applicationContext-aop.xml");

        Traveller traveller01 = (Traveller) context.getBean("traveller01");

        AirportOperations airportOperations = (AirportOperations)
        context.getBean("airportOperations");

        try {
            airportOperations.checkin(traveller01);
        } catch (AirportOperationException e) {
            // TODO Auto-generated catch block
            e.printStackTrace();
        }

        try {
            airportOperations.goForSecurityCheck(traveller01);
        } catch (AirportOperationException e) {
            // TODO Auto-generated catch block
            e.printStackTrace();
        }
    }
}
```

```

airportOperations.checkInLuggage(traveller01);

airportOperations.deplane(traveller01);

airportOperations.collectHandLuggage(traveller01);

airportOperations.collecCheckInLuggage(traveller01);

airportOperations.goThroughImmigrationAndCustomsCheck(traveller01);

airportOperations.goThroughImmigrationAndCustomsCheck(traveller01);

```

```

List<Traveller> aiorport01Pasengers = (List<Traveller>)
context.getBean("listOfTravellersinAireport01");

```

```

for (Traveller traveller : aiorport01Pasengers){

```

```

    logger.info("=====
=====");

```

```

    logger.info("=====
=====");

```

```

    logger.info("=====
=====");

```

```

        airportOperations.checkin(traveller);

        airportOperations.goForSecurityCheck(traveller);

        airportOperations.checkInLuggage(traveller);

        airportOperations.deplane(traveller);

        airportOperations.collectHandLuggage(traveller);

        airportOperations.collecCheckInLuggage(traveller);

        airportOperations.goThroughImmigrationAndCustomsCheck(traveller);

```

```

logger.info("=====
=====");

logger.info("=====
=====");

logger.info("=====
=====");

    }

    aiorport01Pasengers = (List<Traveller>)
context.getBean("listOfTravellersinAireport04");

    for (Traveller traveller : aiorport01Pasengers){

logger.info("=====
=====");

logger.info("=====
=====");

logger.info("=====
=====");
        airportOperations.checkin(traveller);

        airportOperations.goForSecurityCheck(traveller);

        airportOperations.checkInLuggage(traveller);

        airportOperations.deplane(traveller);

        airportOperations.collectHandLuggage(traveller);

        airportOperations.collecCheckInLuggage(traveller);

        airportOperations.goThroughImmigrationAndCustomsCheck(traveller);

logger.info("=====
=====");

```

```
logger.info("=====");
```

```
logger.info("=====");
```

```
}
```

```
System.out.println(traveller01);
```

```
}
```

```
}
```


1.55 – Create the applicationContext-aop.xml file in the resources folder

```
<?xml version="1.0" encoding="UTF-8"?>

<beans xmlns="http://www.springframework.org/schema/beans"
       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
       xmlns:util="http://www.springframework.org/schema/util"
       xmlns:aop="http://www.springframework.org/schema/aop"
       xsi:schemaLocation="http://www.springframework.org/schema/beans
http://www.springframework.org/schema/beans/spring-beans-3.0.xsd
http://www.springframework.org/schema/aop
http://www.springframework.org/schema/aop/spring-aop-3.0.xsd
http://www.springframework.org/schema/util
http://www.springframework.org/schema/util/spring-util-3.0.xsd">

    <aop:aspectj-autoproxy />

    <bean id="airportOperations"
          class="com.rollingstone.springframework.aop.example.AirportOperationsImpl"
/>

    <bean id="trackAirportOperation"

          class="com.rollingstone.springframework.aop.example.AirportOperationCommonT
racker"></bean>

    <bean

          class="org.springframework.aop.aspectj.annotation.AnnotationAwareAspectJAuto
ProxyCreator"></bean>

    <bean id="startedOperation"

          class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateF
actory"
          factory-method="createLocalDate">
        <constructor-arg value="1975-01-14" />
    </bean>

    <bean id="commissionDate"

          class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateF
actory"
          factory-method="createLocalDate">
```

```

        <constructor-arg value="2009-01-01" />
    </bean>

    <bean id="departureTime"

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateTime
imeFactory"
        factory-method="createLocalDateTime">
        <constructor-arg value="2017-03-04 11:30" />
    </bean>

    <bean id="arrivalTime"

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateTime
imeFactory"
        factory-method="createLocalDateTime">
        <constructor-arg value="2017-04-04 11:30" />
    </bean>

    <bean id="dateOfBirth"

        class="com.rollingstone.springframework.basic.ioc.constructor.injection.LocalDateTime
actory"
        factory-method="createLocalDate">
        <constructor-arg value="1993-01-14" />
    </bean>

    <bean id="flight01"
class="com.rollingstone.springframework.aop.example.Flight">
        <constructor-arg index="0" value="01"></constructor-arg>
        <constructor-arg index="1" value="BA798"></constructor-arg>
        <constructor-arg index="2">
            <ref bean="airport01" />
        </constructor-arg>
        <constructor-arg index="3">
            <ref bean="airport02" />
        </constructor-arg>
        <constructor-arg index="4">
            <ref bean="departureTime" />
        </constructor-arg>
        <constructor-arg index="5">
            <ref bean="arrivalTime" />
        </constructor-arg>
        <constructor-arg index="6">

```

```

        <ref bean="airplane01" />
    </constructor-arg>
    <constructor-arg index="7">
        <list>
            <ref bean="pilot01" />
            <ref bean="pilot02" />
        </list>
    </constructor-arg>
    <constructor-arg index="8">
        <list>
            <ref bean="flightAttendant01" />
            <ref bean="flightAttendant02" />
        </list>
    </constructor-arg>
</bean>

```

```

<bean id="flight02"
class="com.rollingstone.springframework.aop.example.Flight">
    <constructor-arg index="0" value="02"></constructor-arg>
    <constructor-arg index="1" value="UA878"></constructor-arg>
    <constructor-arg index="2">
        <ref bean="airport02" />
    </constructor-arg>
    <constructor-arg index="3">
        <ref bean="airport03" />
    </constructor-arg>
    <constructor-arg index="4">
        <ref bean="departureTime" />
    </constructor-arg>
    <constructor-arg index="5">
        <ref bean="arrivalTime" />
    </constructor-arg>
    <constructor-arg index="6">
        <ref bean="airplane02" />
    </constructor-arg>
    <constructor-arg index="7">
        <list>
            <ref bean="pilot03" />
            <ref bean="pilot04" />
        </list>
    </constructor-arg>
    <constructor-arg index="8">
        <list>
            <ref bean="flightAttendant03" />
            <ref bean="flightAttendant04" />
        </list>
    </constructor-arg>
</bean>

```

```

        </list>
    </constructor-arg>
</bean>

```

```

<bean id="flight03"
class="com.rollingstone.springframework.aop.example.Flight">
    <constructor-arg index="0" value="03"></constructor-arg>
    <constructor-arg index="1" value="NW878"></constructor-arg>
    <constructor-arg index="2">
        <ref bean="airport03" />
    </constructor-arg>
    <constructor-arg index="3">
        <ref bean="airport04" />
    </constructor-arg>
    <constructor-arg index="4">
        <ref bean="departureTime" />
    </constructor-arg>
    <constructor-arg index="5">
        <ref bean="arrivalTime" />
    </constructor-arg>
    <constructor-arg index="6">
        <ref bean="airplane03" />
    </constructor-arg>
    <constructor-arg index="7">
        <list>
            <ref bean="pilot04" />
            <ref bean="pilot05" />
        </list>
    </constructor-arg>
    <constructor-arg index="8">
        <list>
            <ref bean="flightAttendant05" />
            <ref bean="flightAttendant06" />
        </list>
    </constructor-arg>
</bean>

```

```

<bean id="flight04"
class="com.rollingstone.springframework.aop.example.Flight">
    <constructor-arg index="0" value="04"></constructor-arg>
    <constructor-arg index="1" value="UA878"></constructor-arg>
    <constructor-arg index="2">
        <ref bean="airport04" />
    </constructor-arg>
    <constructor-arg index="3">

```

```

        <ref bean="airport05" />
    </constructor-arg>
    <constructor-arg index="4">
        <ref bean="departureTime" />
    </constructor-arg>
    <constructor-arg index="5">
        <ref bean="arrivalTime" />
    </constructor-arg>
    <constructor-arg index="6">
        <ref bean="airplane04" />
    </constructor-arg>
    <constructor-arg index="7">
        <list>
            <ref bean="pilot06" />
            <ref bean="pilot07" />
        </list>
    </constructor-arg>
    <constructor-arg index="8">
        <list>
            <ref bean="flightAttendant07" />
            <ref bean="flightAttendant08" />
        </list>
    </constructor-arg>
</bean>

```

```

<bean id="airplane01"
class="com.rollingstone.springframework.aop.example.Airplane">
    <constructor-arg index="0" type="long">
        <value>1</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String"
        value="Boeing777" />
    <constructor-arg index="2" type="int">
        <value>7000</value>
    </constructor-arg>
    <constructor-arg index="3" type="java.time.LocalDate">
        <ref bean="commissionDate" />
    </constructor-arg>
</bean>

```

```

<bean id="airplane02"
class="com.rollingstone.springframework.aop.example.Airplane">
    <constructor-arg index="0" type="long">

```

```

        <value>2</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>Airbus A380</value>
    </constructor-arg>
    <constructor-arg index="2" type="int">
        <value>6000</value>
    </constructor-arg>
    <constructor-arg index="3" type="java.time.LocalDate">
        <ref bean="commissionDate" />
    </constructor-arg>
</bean>

<bean id="airplane03"
class="com.rollingstone.springframework.aop.example.Airplane">
    <constructor-arg index="0" type="long">
        <value>3</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>Airbus A380</value>
    </constructor-arg>
    <constructor-arg index="2" type="int">
        <value>5000</value>
    </constructor-arg>
    <constructor-arg index="3">
        <ref bean="commissionDate" />
    </constructor-arg>
</bean>

<bean id="airplane04"
class="com.rollingstone.springframework.aop.example.Airplane">
    <constructor-arg index="0" type="long">
        <value>4</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>Boeing 777</value>
    </constructor-arg>
    <constructor-arg index="2" type="int">
        <value>3000</value>
    </constructor-arg>
    <constructor-arg index="3">
        <ref bean="commissionDate" />
    </constructor-arg>
</bean>

```

```

    <bean id="airplane05"
class="com.rollingstone.springframework.aop.example.Airplane">
    <constructor-arg index="0" type="long">
        <value>5</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>Boeing 777</value>
    </constructor-arg>
    <constructor-arg index="2" type="int">
        <value>7000</value>
    </constructor-arg>
    <constructor-arg index="3">
        <ref bean="commissionDate" />
    </constructor-arg>
</bean>

    <bean id="airline01"
class="com.rollingstone.springframework.aop.example.Airline">
    <constructor-arg index="0" value="01"></constructor-arg>
    <constructor-arg index="1" value="0001"></constructor-arg>
    <constructor-arg index="2" value="United Airways"></constructor-arg>
    <constructor-arg index="3">
        <ref bean="startedOperation" />
    </constructor-arg>
    <constructor-arg index="4" value="New York, NY"></constructor-arg>
</bean>

    <bean id="airline02"
class="com.rollingstone.springframework.aop.example.Airline">
    <constructor-arg index="0" value="02"></constructor-arg>
    <constructor-arg index="1" value="0002"></constructor-arg>
    <constructor-arg index="2" value="American Airways"></constructor-arg>
    <constructor-arg index="3">
        <ref bean="startedOperation" />
    </constructor-arg>
    <constructor-arg index="4" value="Chicago, IL"></constructor-arg>
</bean>

    <bean id="airline03"
class="com.rollingstone.springframework.aop.example.Airline">
    <constructor-arg index="0" value="03"></constructor-arg>
    <constructor-arg index="1" value="0003"></constructor-arg>
    <constructor-arg index="2" value="North West Airways"></constructor-arg>
    <constructor-arg index="3">

```

```

        <ref bean="startedOperation" />
    </constructor-arg>
    <constructor-arg index="4" value="San Francisco, CA"></constructor-arg>
</bean>

```

```

    <bean id="airport01"
class="com.rollingstone.springframework.aop.example.Airport">
        <constructor-arg index="0" value="01"></constructor-arg>
        <constructor-arg index="1" value="ORD"></constructor-arg>
        <constructor-arg index="2"
            value="Chicago Ohare International Airport"></constructor-arg>
        <constructor-arg index="3" value="USA"></constructor-arg>
        <constructor-arg index="4" value="Chicago"></constructor-arg>
        <constructor-arg index="5" value="Ohare Address"></constructor-arg>
    </bean>

```

```

    <bean id="airport02"
class="com.rollingstone.springframework.aop.example.Airport">
        <constructor-arg index="0" value="02"></constructor-arg>
        <constructor-arg index="1" value="JFK"></constructor-arg>
        <constructor-arg index="2" value="JFK International Airport"></constructor-
arg>
        <constructor-arg index="3" value="USA"></constructor-arg>
        <constructor-arg index="4" value="New York"></constructor-arg>
        <constructor-arg index="5" value="JFK Address"></constructor-arg>
    </bean>

```

```

    <bean id="airport03"
class="com.rollingstone.springframework.aop.example.Airport">
        <constructor-arg index="0" value="03"></constructor-arg>
        <constructor-arg index="1" value="LAX"></constructor-arg>
        <constructor-arg index="2" value="LAX International Airport"></constructor-
arg>
        <constructor-arg index="3" value="USA"></constructor-arg>
        <constructor-arg index="4" value="Los Angeles"></constructor-arg>
        <constructor-arg index="5" value="LAX Address"></constructor-arg>
    </bean>

```

```

    <!-- <bean id="airport04"
class="com.rollingstone.springframework.aop.example.Airport">
        <constructor-arg index="0" value="04"></constructor-arg> <constructor-arg
            index="1" value="DEL"></constructor-arg> <constructor-arg index="2"
value="New
            Delhi International Airport"></constructor-arg> <constructor-arg index="3"

```



```

        value="India"></constructor-arg> <constructor-arg index="5" value="New
Delhi"></constructor-arg>
        <constructor-arg index="6" value="DEL Address"></constructor-arg> </bean>
-->
    <bean id="airport04"
class="com.rollingstone.springframework.aop.example.Airport">
        <constructor-arg index="0" value="04"></constructor-arg>
        <constructor-arg index="1" value="DEL"></constructor-arg>
        <constructor-arg index="2"
            value="New Delhi International Airport"></constructor-arg>
        <constructor-arg index="3" value="India"></constructor-arg>
        <constructor-arg index="4" value="New Delhi"></constructor-arg>
        <constructor-arg index="5" value="DEL Address"></constructor-arg>
    </bean>

    <bean id="airport05"
class="com.rollingstone.springframework.aop.example.Airport">
        <constructor-arg index="0" value="05"></constructor-arg>
        <constructor-arg index="1" value="SFO"></constructor-arg>
        <constructor-arg index="2"
            value="San Francisco International Airport"></constructor-arg>
        <constructor-arg index="3" value="USA"></constructor-arg>
        <constructor-arg index="4" value="San Francisco"></constructor-arg>
        <constructor-arg index="5" value="SFO Address"></constructor-arg>
    </bean>

    <bean id="flightAttendant01"
        class="com.rollingstone.springframework.aop.example.FlightAttendant">
        <constructor-arg index="0" type="long">
            <value>1</value>
        </constructor-arg>
        <constructor-arg index="1" type="java.lang.String">
            <value>00001</value>
        </constructor-arg>
        <constructor-arg index="2" type="java.lang.String">
            <value>Ashley</value>
        </constructor-arg>
        <constructor-arg index="3" type="java.lang.String">
            <value>Bentley</value>
        </constructor-arg>
        <constructor-arg index="4" type="java.lang.String">
            <value>
            </value>
        </constructor-arg>
    </bean>

```

```

    <constructor-arg index="5" type="java.lang.String">
        <value>123-567-3456</value>
    </constructor-arg>
    <constructor-arg index="6" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7" type="int">
        <value>24</value>
    </constructor-arg>
    <constructor-arg index="8" type="java.lang.String">
        <value>F</value>
    </constructor-arg>
</bean>

<bean id="flightAttendant02"
    class="com.rollingstone.springframework.aop.example.FlightAttendant">
    <constructor-arg index="0" type="long">
        <value>2</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>00002</value>
    </constructor-arg>
    <constructor-arg index="2" type="java.lang.String">
        <value>Anjelina</value>
    </constructor-arg>
    <constructor-arg index="3" type="java.lang.String">
        <value>Smith</value>
    </constructor-arg>
    <constructor-arg index="4" type="java.lang.String">
        <value>
        </value>
    </constructor-arg>
    <constructor-arg index="5" type="java.lang.String">
        <value>321-567-3456</value>
    </constructor-arg>
    <constructor-arg index="6" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7" type="int">
        <value>24</value>
    </constructor-arg>
    <constructor-arg index="8" type="java.lang.String">
        <value>F</value>
    </constructor-arg>
</bean>

```

```

<bean id="flightAttendant03"
  class="com.rollingstone.springframework.aop.example.FlightAttendant">
  <constructor-arg index="0" type="long">
    <value>3</value>
  </constructor-arg>
  <constructor-arg index="1" type="java.lang.String">
    <value>00003</value>
  </constructor-arg>
  <constructor-arg index="2" type="java.lang.String">
    <value>Sabrina</value>
  </constructor-arg>
  <constructor-arg index="3" type="java.lang.String">
    <value>Orlando</value>
  </constructor-arg>
  <constructor-arg index="4" type="java.lang.String">
    <value>
  </value>
  </constructor-arg>
  <constructor-arg index="5" type="java.lang.String">
    <value>123-567-3456</value>
  </constructor-arg>
  <constructor-arg index="6" type="java.time.LocalDate">
    <ref bean="dateOfBirth" />
  </constructor-arg>
  <constructor-arg index="7" type="int">
    <value>24</value>
  </constructor-arg>
  <constructor-arg index="8" type="java.lang.String">
    <value>F</value>
  </constructor-arg>
</bean>

```

```

<bean id="flightAttendant04"
  class="com.rollingstone.springframework.aop.example.FlightAttendant">
  <constructor-arg index="0" type="long">
    <value>4</value>
  </constructor-arg>
  <constructor-arg index="1" type="java.lang.String">
    <value>00004</value>
  </constructor-arg>
  <constructor-arg index="2" type="java.lang.String">
    <value>Lisa</value>
  </constructor-arg>
  <constructor-arg index="3" type="java.lang.String">

```

```

        <value>Jones</value>
    </constructor-arg>
    <constructor-arg index="4" type="java.lang.String">
        <value>
        </value>
    </constructor-arg>
    <constructor-arg index="5" type="java.lang.String">
        <value>123-567-3456</value>
    </constructor-arg>
    <constructor-arg index="6" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7" type="int">
        <value>24</value>
    </constructor-arg>
    <constructor-arg index="8" type="java.lang.String">
        <value>F</value>
    </constructor-arg>
</bean>

<bean id="flightAttendant05"
    class="com.rollingstone.springframework.aop.example.FlightAttendant">
    <constructor-arg index="0" type="long">
        <value>5</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>00005</value>
    </constructor-arg>
    <constructor-arg index="2" type="java.lang.String">
        <value>Salina</value>
    </constructor-arg>
    <constructor-arg index="3" type="java.lang.String">
        <value>Jhonson</value>
    </constructor-arg>
    <constructor-arg index="4" type="java.lang.String">
        <value>
        </value>
    </constructor-arg>
    <constructor-arg index="5" type="java.lang.String">
        <value>123-567-3456</value>
    </constructor-arg>
    <constructor-arg index="6" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7" type="int">

```

```

        <value>24</value>
    </constructor-arg>
    <constructor-arg index="8" type="java.lang.String">
        <value>F</value>
    </constructor-arg>
</bean>

<bean id="flightAttendant06"
    class="com.rollingstone.springframework.aop.example.FlightAttendant">
    <constructor-arg index="0" type="long">
        <value>6</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>00006</value>
    </constructor-arg>
    <constructor-arg index="2" type="java.lang.String">
        <value>Cathy</value>
    </constructor-arg>
    <constructor-arg index="3" type="java.lang.String">
        <value>Smith</value>
    </constructor-arg>
    <constructor-arg index="4" type="java.lang.String">
        <value>
    </value>
    </constructor-arg>
    <constructor-arg index="5" type="java.lang.String">
        <value>123-567-3456</value>
    </constructor-arg>
    <constructor-arg index="6" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7" type="int">
        <value>24</value>
    </constructor-arg>
    <constructor-arg index="8" type="java.lang.String">
        <value>F</value>
    </constructor-arg>
</bean>

<bean id="flightAttendant07"
    class="com.rollingstone.springframework.aop.example.FlightAttendant">
    <constructor-arg index="0" type="long">
        <value>7</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">

```

```

        <value>00007</value>
    </constructor-arg>
    <constructor-arg index="2" type="java.lang.String">
        <value>Tiffany</value>
    </constructor-arg>
    <constructor-arg index="3" type="java.lang.String">
        <value>Williams</value>
    </constructor-arg>
    <constructor-arg index="4" type="java.lang.String">
        <value>
        </value>
    </constructor-arg>
    <constructor-arg index="5" type="java.lang.String">
        <value>123-567-3456</value>
    </constructor-arg>
    <constructor-arg index="6" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7" type="int">
        <value>24</value>
    </constructor-arg>
    <constructor-arg index="8" type="java.lang.String">
        <value>F</value>
    </constructor-arg>
</bean>

<bean id="flightAttendant08"
    class="com.rollingstone.springframework.aop.example.FlightAttendant">
    <constructor-arg index="0" type="long">
        <value>8</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>00008</value>
    </constructor-arg>
    <constructor-arg index="2" type="java.lang.String">
        <value>Susan</value>
    </constructor-arg>
    <constructor-arg index="3" type="java.lang.String">
        <value>Collins</value>
    </constructor-arg>
    <constructor-arg index="4" type="java.lang.String">
        <value>
        </value>
    </constructor-arg>
    <constructor-arg index="5" type="java.lang.String">

```

```

        <value>124-567-3456</value>
    </constructor-arg>
    <constructor-arg index="6" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7" type="int">
        <value>24</value>
    </constructor-arg>
    <constructor-arg index="8" type="java.lang.String">
        <value>F</value>
    </constructor-arg>
</bean>

<bean id="pilot01" class="com.rollingstone.springframework.aop.example.Pilot">
    <constructor-arg index="0" value="01"></constructor-arg>
    <constructor-arg index="1" value="0001"></constructor-arg>
    <constructor-arg index="2" value="Scott"></constructor-arg>
    <constructor-arg index="3" value="Urman"></constructor-arg>
    <constructor-arg index="4" value=""></constructor-arg>
    <constructor-arg index="5">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="6" type="int">
        <value>24</value>
    </constructor-arg>
    <constructor-arg index="7" value="F"></constructor-arg>
    <constructor-arg index="8" type="int">
        <value>6000</value>
    </constructor-arg>
</bean>

<bean id="pilot02" class="com.rollingstone.springframework.aop.example.Pilot">
    <constructor-arg index="0" value="02"></constructor-arg>
    <constructor-arg index="1" value="0002"></constructor-arg>
    <constructor-arg index="2" value="David"></constructor-arg>
    <constructor-arg index="3" value="Harrington"></constructor-arg>
    <constructor-arg index="4" value=""></constructor-arg>
    <constructor-arg index="5">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="6" value="24"></constructor-arg>
    <constructor-arg index="7" value="M"></constructor-arg>
    <constructor-arg index="8" type="int">
        <value>6000</value>

```

```

        </constructor-arg>
    </bean>

    <bean id="pilot03" class="com.rollingstone.springframework.aop.example.Pilot">
        <constructor-arg index="0" value="03"></constructor-arg>
        <constructor-arg index="1" value="0003"></constructor-arg>
        <constructor-arg index="2" value="Soumitra"></constructor-arg>
        <constructor-arg index="3" value="Chatterjee"></constructor-arg>
        <constructor-arg index="4" value=""></constructor-arg>
        <constructor-arg index="5">
            <ref bean="dateOfBirth" />
        </constructor-arg>
        <constructor-arg index="6" value="24"></constructor-arg>
        <constructor-arg index="7" value="M"></constructor-arg>
        <constructor-arg index="8" type="int">
            <value>6000</value>
        </constructor-arg>
    </bean>

    <bean id="pilot04" class="com.rollingstone.springframework.aop.example.Pilot">
        <constructor-arg index="0" value="04"></constructor-arg>
        <constructor-arg index="1" value="0004"></constructor-arg>
        <constructor-arg index="2" value="Sophia"></constructor-arg>
        <constructor-arg index="3" value="Smith"></constructor-arg>
        <constructor-arg index="4" value=""></constructor-arg>
        <constructor-arg index="5">
            <ref bean="dateOfBirth" />
        </constructor-arg>
        <constructor-arg index="6" value="24"></constructor-arg>
        <constructor-arg index="7" value="F"></constructor-arg>
        <constructor-arg index="8" type="int">
            <value>6000</value>
        </constructor-arg>
    </bean>

    <bean id="pilot05" class="com.rollingstone.springframework.aop.example.Pilot">
        <constructor-arg index="0" value="05"></constructor-arg>
        <constructor-arg index="1" value="0005"></constructor-arg>
        <constructor-arg index="2" value="Randal"></constructor-arg>
        <constructor-arg index="3" value="Jhonson"></constructor-arg>
        <constructor-arg index="4" value=""></constructor-arg>
        <constructor-arg index="5">
            <ref bean="dateOfBirth" />
        </constructor-arg>
        <constructor-arg index="6" value="24"></constructor-arg>

```



```

        <constructor-arg index="7" value="F"></constructor-arg>
        <constructor-arg index="8" type="int">
            <value>6000</value>
        </constructor-arg>
    </bean>

    <bean id="pilot06" class="com.rollingstone.springframework.aop.example.Pilot">
        <constructor-arg index="0" value="06"></constructor-arg>
        <constructor-arg index="1" value="0006"></constructor-arg>
        <constructor-arg index="2" value="Olivia"></constructor-arg>
        <constructor-arg index="3" value="Shering"></constructor-arg>
        <constructor-arg index="4" value=""></constructor-arg>
        <constructor-arg index="5">
            <ref bean="dateOfBirth" />
        </constructor-arg>
        <constructor-arg index="6" value="24"></constructor-arg>
        <constructor-arg index="7" value="F"></constructor-arg>
        <constructor-arg index="8" type="int">
            <value>6000</value>
        </constructor-arg>
    </bean>

    <bean id="pilot07" class="com.rollingstone.springframework.aop.example.Pilot">
        <constructor-arg index="0" value="07"></constructor-arg>
        <constructor-arg index="1" value="0007"></constructor-arg>
        <constructor-arg index="2" value="Anthony"></constructor-arg>
        <constructor-arg index="3" value="George"></constructor-arg>
        <constructor-arg index="4" value=""></constructor-arg>
        <constructor-arg index="5">
            <ref bean="dateOfBirth" />
        </constructor-arg>
        <constructor-arg index="6" value="24"></constructor-arg>
        <constructor-arg index="7" value="F"></constructor-arg>
        <constructor-arg index="8" type="int">
            <value>6000</value>
        </constructor-arg>
    </bean>

    <bean id="securityOfficer01"
        class="com.rollingstone.springframework.aop.example.SecurityOfficer">
        <constructor-arg index="0" value="01"></constructor-arg>
        <constructor-arg index="1" value="0001"></constructor-arg>
        <constructor-arg index="2" value="Brent"></constructor-arg>
        <constructor-arg index="3" value="Diana"></constructor-arg>
        <constructor-arg index="4" value=""></constructor-arg>

```

```

    <constructor-arg index="5" value="111-11-1111"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport01" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>
</bean>

<bean id="securityOfficer02"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="02"></constructor-arg>
    <constructor-arg index="1" value="0002"></constructor-arg>
    <constructor-arg index="2" value="Patrick"></constructor-arg>
    <constructor-arg index="3" value="Cummings"></constructor-arg>
    <constructor-arg index="4" value=""></constructor-arg>
    <constructor-arg index="5" value="222-22-2222"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport01" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>
</bean>

<bean id="securityOfficer03"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="03"></constructor-arg>
    <constructor-arg index="1" value="0003"></constructor-arg>
    <constructor-arg index="2" value="Mathew"></constructor-arg>
    <constructor-arg index="3" value="Wade"></constructor-arg>
    <constructor-arg index="4" value=""></constructor-arg>
    <constructor-arg index="5" value="333-33-3333"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport01" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>

```

```

</bean>

<bean id="securityOfficer04"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="04"></constructor-arg>
    <constructor-arg index="1" value="0004"></constructor-arg>
    <constructor-arg index="2" value="Alex"></constructor-arg>
    <constructor-arg index="3" value="Kingsley"></constructor-arg>
    <constructor-arg index="4" value="Bret"></constructor-arg>
    <constructor-arg index="5" value="444-44-4444"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport01" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>
</bean>

<bean id="securityOfficer05"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="01"></constructor-arg>
    <constructor-arg index="1" value="0001"></constructor-arg>
    <constructor-arg index="2" value="Robert"></constructor-arg>
    <constructor-arg index="3" value="Paton"></constructor-arg>
    <constructor-arg index="4" value=""></constructor-arg>
    <constructor-arg index="5" value="555-55-5555"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport02" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>
</bean>

<bean id="securityOfficer06"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="02"></constructor-arg>
    <constructor-arg index="1" value="0002"></constructor-arg>
    <constructor-arg index="2" value="Jhon"></constructor-arg>
    <constructor-arg index="3" value="Patton"></constructor-arg>
    <constructor-arg index="4" value=""></constructor-arg>

```

```

    <constructor-arg index="5" value="666-66-6666"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport02" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>
</bean>

<bean id="securityOfficer07"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="03"></constructor-arg>
    <constructor-arg index="1" value="0003"></constructor-arg>
    <constructor-arg index="2" value="Elezabeth"></constructor-arg>
    <constructor-arg index="3" value="Scott"></constructor-arg>
    <constructor-arg index="4" value=""></constructor-arg>
    <constructor-arg index="5" value="777-77-7777"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport02" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>
</bean>

<bean id="securityOfficer08"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="04"></constructor-arg>
    <constructor-arg index="1" value="0004"></constructor-arg>
    <constructor-arg index="2" value="Karan"></constructor-arg>
    <constructor-arg index="3" value="Grover"></constructor-arg>
    <constructor-arg index="4" value="Singh"></constructor-arg>
    <constructor-arg index="5" value="888-88-8888"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport02" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>

```

</bean>

```
<bean id="securityOfficer09"
  class="com.rollingstone.springframework.aop.example.SecurityOfficer">
  <constructor-arg index="0" value="01"></constructor-arg>
  <constructor-arg index="1" value="0001"></constructor-arg>
  <constructor-arg index="2" value="Jordaya"></constructor-arg>
  <constructor-arg index="3" value="Bentley"></constructor-arg>
  <constructor-arg index="4" value="Maria"></constructor-arg>
  <constructor-arg index="5" value="576-56-4755"></constructor-arg>
  <constructor-arg index="6">
    <ref bean="dateOfBirth" />
  </constructor-arg>
  <constructor-arg index="7">
    <ref bean="airport03" />
  </constructor-arg>
  <constructor-arg index="8" value="25"></constructor-arg>
  <constructor-arg index="9" value="M"></constructor-arg>
</bean>
```

```
<bean id="securityOfficer10"
  class="com.rollingstone.springframework.aop.example.SecurityOfficer">
  <constructor-arg index="0" value="02"></constructor-arg>
  <constructor-arg index="1" value="0002"></constructor-arg>
  <constructor-arg index="2" value="Jhon"></constructor-arg>
  <constructor-arg index="3" value="Smith"></constructor-arg>
  <constructor-arg index="4" value=""></constructor-arg>
  <constructor-arg index="5" value="999-96-9966"></constructor-arg>
  <constructor-arg index="6">
    <ref bean="dateOfBirth" />
  </constructor-arg>
  <constructor-arg index="7">
    <ref bean="airport03" />
  </constructor-arg>
  <constructor-arg index="8" value="25"></constructor-arg>
  <constructor-arg index="9" value="M"></constructor-arg>
</bean>
```

```
<bean id="securityOfficer11"
  class="com.rollingstone.springframework.aop.example.SecurityOfficer">
  <constructor-arg index="0" value="03"></constructor-arg>
  <constructor-arg index="1" value="0003"></constructor-arg>
  <constructor-arg index="2" value="Elezabeth"></constructor-arg>
  <constructor-arg index="3" value="Williams"></constructor-arg>
  <constructor-arg index="4" value=""></constructor-arg>
```

```

    <constructor-arg index="5" value="767-37-3477"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport03" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>
</bean>

<bean id="securityOfficer12"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="04"></constructor-arg>
    <constructor-arg index="1" value="0004"></constructor-arg>
    <constructor-arg index="2" value="Roshan"></constructor-arg>
    <constructor-arg index="3" value="Fernando"></constructor-arg>
    <constructor-arg index="4" value=""></constructor-arg>
    <constructor-arg index="5" value="888-88-8888"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport03" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>
</bean>

<bean id="securityOfficer13"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="01"></constructor-arg>
    <constructor-arg index="1" value="0001"></constructor-arg>
    <constructor-arg index="2" value="Kelly"></constructor-arg>
    <constructor-arg index="3" value="Kegan"></constructor-arg>
    <constructor-arg index="4" value=""></constructor-arg>
    <constructor-arg index="5" value="676-86-4755"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport04" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>

```

```

    <constructor-arg index="9" value="M"></constructor-arg>
</bean>

<bean id="securityOfficer14"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="02"></constructor-arg>
    <constructor-arg index="1" value="0002"></constructor-arg>
    <constructor-arg index="2" value="Peter"></constructor-arg>
    <constructor-arg index="3" value="Williams"></constructor-arg>
    <constructor-arg index="4" value=""></constructor-arg>
    <constructor-arg index="5" value="989-96-9966"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport04" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>
</bean>

<bean id="securityOfficer15"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="03"></constructor-arg>
    <constructor-arg index="1" value="0003"></constructor-arg>
    <constructor-arg index="2" value="Jesse"></constructor-arg>
    <constructor-arg index="3" value="Gold"></constructor-arg>
    <constructor-arg index="4" value=""></constructor-arg>
    <constructor-arg index="5" value="767-57-8877"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport04" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>
</bean>

<bean id="securityOfficer16"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="04"></constructor-arg>
    <constructor-arg index="1" value="0004"></constructor-arg>
    <constructor-arg index="2" value="Debra"></constructor-arg>
    <constructor-arg index="3" value="Terry"></constructor-arg>

```

```

    <constructor-arg index="4" value=""></constructor-arg>
    <constructor-arg index="5" value="378-23-4576"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport05" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>
</bean>

<bean id="securityOfficer17"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="01"></constructor-arg>
    <constructor-arg index="1" value="0001"></constructor-arg>
    <constructor-arg index="2" value="Glen"></constructor-arg>
    <constructor-arg index="3" value="Maxwell"></constructor-arg>
    <constructor-arg index="4" value=""></constructor-arg>
    <constructor-arg index="5" value="876-76-4755"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport05" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>
</bean>

<bean id="securityOfficer18"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="02"></constructor-arg>
    <constructor-arg index="1" value="0002"></constructor-arg>
    <constructor-arg index="2" value="Nancy"></constructor-arg>
    <constructor-arg index="3" value="Moore"></constructor-arg>
    <constructor-arg index="4" value=""></constructor-arg>
    <constructor-arg index="5" value="966-96-9966"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport05" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>

```



```
    <constructor-arg index="9" value="M"></constructor-arg>
</bean>
```

```
<bean id="securityOfficer19"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="03"></constructor-arg>
    <constructor-arg index="1" value="0003"></constructor-arg>
    <constructor-arg index="2" value="Nicole"></constructor-arg>
    <constructor-arg index="3" value="Cruz"></constructor-arg>
    <constructor-arg index="4" value=""></constructor-arg>
    <constructor-arg index="5" value="767-37-3477"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport05" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>
</bean>
```

```
<bean id="securityOfficer20"
    class="com.rollingstone.springframework.aop.example.SecurityOfficer">
    <constructor-arg index="0" value="04"></constructor-arg>
    <constructor-arg index="1" value="0004"></constructor-arg>
    <constructor-arg index="2" value="Tom"></constructor-arg>
    <constructor-arg index="3" value="Kidman"></constructor-arg>
    <constructor-arg index="4" value=""></constructor-arg>
    <constructor-arg index="5" value="848-48-8888"></constructor-arg>
    <constructor-arg index="6">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport05" />
    </constructor-arg>
    <constructor-arg index="8" value="25"></constructor-arg>
    <constructor-arg index="9" value="M"></constructor-arg>
</bean>
```

```
<!-- Traveller Start -->
```

```
<bean id="traveller01"
class="com.rollingstone.springframework.aop.example.Traveller">
    <constructor-arg index="0" type="long">
        <value>1</value>
```

```

</constructor-arg>
<constructor-arg index="1" type="java.lang.String">
  <value>Peter</value>
</constructor-arg>
<constructor-arg index="2" type="java.lang.String">
  <value>Finder</value>
</constructor-arg>
<constructor-arg index="3" type="java.lang.String">
  <value>
</value>
</constructor-arg>
<constructor-arg index="4" type="java.lang.String">
  <value>464-45-4543</value>
</constructor-arg>
<constructor-arg index="5" type="java.time.LocalDate">
  <ref bean="dateOfBirth" />
</constructor-arg>
<constructor-arg index="6">
  <ref bean="airport01" />
</constructor-arg>
<constructor-arg index="7">
  <ref bean="airport02" />
</constructor-arg>
<constructor-arg index="8" type="int">
  <value>25</value>
</constructor-arg>
<constructor-arg index="9" type="java.lang.String">
  <value>M</value>
</constructor-arg>
<constructor-arg index="10" type="java.lang.String">
  <value>Non Veg</value>
</constructor-arg>
</bean>

```

```

<!-- <bean id="traveller02"
class="com.rollingstone.springframework.aop.example.Traveller">
  <constructor-arg index="0" value="04"></constructor-arg> <constructor-arg
  index="1" value="0004"></constructor-arg> <constructor-arg index="2"
value="Pavan"></constructor-arg>
  <constructor-arg index="3" value="Namdeo"></constructor-arg> <constructor-
arg
  index="4" value=""></constructor-arg> <constructor-arg index="5" value="434-
45-4543"></constructor-arg>
  <constructor-arg index="6"> <ref bean="dateOfBirth" /> </constructor-arg>

```

```

        <constructor-arg index="7"> <ref bean="airport01" /> </constructor-arg>
<constructor-arg
    index="8"> <ref bean="airport02" /> </constructor-arg> <constructor-arg
index="9"
    value="25"></constructor-arg> <constructor-arg index="10"
value="M"></constructor-arg>
    <constructor-arg index="11" value="Veg"></constructor-arg> </bean> -->

```

```

<bean id="traveller02"
class="com.rollingstone.springframework.aop.example.Traveller">
    <constructor-arg index="0" type="long">
        <value>1</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>Pavan</value>
    </constructor-arg>
    <constructor-arg index="2" type="java.lang.String">
        <value>Namdeo</value>
    </constructor-arg>
    <constructor-arg index="3" type="java.lang.String">
        <value>
        </value>
    </constructor-arg>
    <constructor-arg index="4" type="java.lang.String">
        <value>434-45-4543</value>
    </constructor-arg>
    <constructor-arg index="5" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="6">
        <ref bean="airport01" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport02" />
    </constructor-arg>
    <constructor-arg index="8" type="int">
        <value>25</value>
    </constructor-arg>
    <constructor-arg index="9" type="java.lang.String">
        <value>M</value>
    </constructor-arg>
    <constructor-arg index="10" type="java.lang.String">
        <value>Non Veg</value>
    </constructor-arg>

```

</bean>

```
<bean id="traveller03"
class="com.rollingstone.springframework.aop.example.Traveller">
  <constructor-arg index="0" type="long">
    <value>3</value>
  </constructor-arg>
  <constructor-arg index="1" type="java.lang.String">
    <value>Amit</value>
  </constructor-arg>
  <constructor-arg index="2" type="java.lang.String">
    <value>Baruri</value>
  </constructor-arg>
  <constructor-arg index="3" type="java.lang.String">
    <value>
  </value>
  </constructor-arg>
  <constructor-arg index="4" type="java.lang.String">
    <value>439-45-4543</value>
  </constructor-arg>
  <constructor-arg index="5" type="java.time.LocalDate">
    <ref bean="dateOfBirth" />
  </constructor-arg>
  <constructor-arg index="6">
    <ref bean="airport01" />
  </constructor-arg>
  <constructor-arg index="7">
    <ref bean="airport02" />
  </constructor-arg>
  <constructor-arg index="8" type="int">
    <value>25</value>
  </constructor-arg>
  <constructor-arg index="9" type="java.lang.String">
    <value>M</value>
  </constructor-arg>
  <constructor-arg index="10" type="java.lang.String">
    <value>Veg</value>
  </constructor-arg>
</bean>
```

```
<bean id="traveller04"
class="com.rollingstone.springframework.aop.example.Traveller">
  <constructor-arg index="0" type="long">
    <value>1</value>
  </constructor-arg>
```

```

<constructor-arg index="1" type="java.lang.String">
    <value>Varun</value>
</constructor-arg>
<constructor-arg index="2" type="java.lang.String">
    <value>Sharma</value>
</constructor-arg>
<constructor-arg index="3" type="java.lang.String">
    <value>
</value>
</constructor-arg>
<constructor-arg index="4" type="java.lang.String">
    <value>434-45-4578</value>
</constructor-arg>
<constructor-arg index="5" type="java.time.LocalDate">
    <ref bean="dateOfBirth" />
</constructor-arg>
<constructor-arg index="6">
    <ref bean="airport01" />
</constructor-arg>
<constructor-arg index="7">
    <ref bean="airport02" />
</constructor-arg>
<constructor-arg index="8" type="int">
    <value>25</value>
</constructor-arg>
<constructor-arg index="9" type="java.lang.String">
    <value>M</value>
</constructor-arg>
<constructor-arg index="10" type="java.lang.String">
    <value>Veg</value>
</constructor-arg>
</bean>

```

```

<bean id="traveller05"
class="com.rollingstone.springframework.aop.example.Traveller">
    <constructor-arg index="0" type="long">
        <value>5</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>David</value>
    </constructor-arg>
    <constructor-arg index="2" type="java.lang.String">
        <value>Harrington</value>
    </constructor-arg>
    <constructor-arg index="3" type="java.lang.String">

```

```

        <value>
        </value>
    </constructor-arg>
    <constructor-arg index="4" type="java.lang.String">
        <value>434-45-4543</value>
    </constructor-arg>
    <constructor-arg index="5" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="6">
        <ref bean="airport01" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport02" />
    </constructor-arg>
    <constructor-arg index="8" type="int">
        <value>25</value>
    </constructor-arg>
    <constructor-arg index="9" type="java.lang.String">
        <value>M</value>
    </constructor-arg>
    <constructor-arg index="10" type="java.lang.String">
        <value>Non Veg</value>
    </constructor-arg>
</bean>

```

```

    <bean id="traveller06"
class="com.rollingstone.springframework.aop.example.Traveller">
        <constructor-arg index="0" type="long">
            <value>6</value>
        </constructor-arg>
        <constructor-arg index="1" type="java.lang.String">
            <value>Nicolaus</value>
        </constructor-arg>
        <constructor-arg index="2" type="java.lang.String">
            <value>Loriente</value>
        </constructor-arg>
        <constructor-arg index="3" type="java.lang.String">
            <value>
            </value>
        </constructor-arg>
        <constructor-arg index="4" type="java.lang.String">
            <value>834-45-4943</value>
        </constructor-arg>
    </bean>

```

```

    <constructor-arg index="5" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="6">
        <ref bean="airport02" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport03" />
    </constructor-arg>
    <constructor-arg index="8" type="int">
        <value>25</value>
    </constructor-arg>
    <constructor-arg index="9" type="java.lang.String">
        <value>M</value>
    </constructor-arg>
    <constructor-arg index="10" type="java.lang.String">
        <value>Non Veg</value>
    </constructor-arg>
</bean>

```

```

    <bean id="traveller07"
class="com.rollingstone.springframework.aop.example.Traveller">
    <constructor-arg index="0" type="long">
        <value>7</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>Dean</value>
    </constructor-arg>
    <constructor-arg index="2" type="java.lang.String">
        <value>Jones</value>
    </constructor-arg>
    <constructor-arg index="3" type="java.lang.String">
        <value>
        </value>
    </constructor-arg>
    <constructor-arg index="4" type="java.lang.String">
        <value>434-98-4543</value>
    </constructor-arg>
    <constructor-arg index="5" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="6">
        <ref bean="airport02" />
    </constructor-arg>
    <constructor-arg index="7">

```

```

        <ref bean="airport03" />
    </constructor-arg>
    <constructor-arg index="8" type="int">
        <value>25</value>
    </constructor-arg>
    <constructor-arg index="9" type="java.lang.String">
        <value>M</value>
    </constructor-arg>
    <constructor-arg index="10" type="java.lang.String">
        <value>Non Veg</value>
    </constructor-arg>
</bean>

```

```

<bean id="traveller08"
class="com.rollingstone.springframework.aop.example.Traveller">
    <constructor-arg index="0" type="long">
        <value>8</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>Michelle</value>
    </constructor-arg>
    <constructor-arg index="2" type="java.lang.String">
        <value>Marsh</value>
    </constructor-arg>
    <constructor-arg index="3" type="java.lang.String">
        <value>
        </value>
    </constructor-arg>
    <constructor-arg index="4" type="java.lang.String">
        <value>434-45-4543</value>
    </constructor-arg>
    <constructor-arg index="5" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="6">
        <ref bean="airport02" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport03" />
    </constructor-arg>
    <constructor-arg index="8" type="int">
        <value>25</value>
    </constructor-arg>
    <constructor-arg index="9" type="java.lang.String">
        <value>F</value>

```



```

        </constructor-arg>
        <constructor-arg index="10" type="java.lang.String">
            <value>Non Veg</value>
        </constructor-arg>
    </bean>

    <bean id="traveller09"
class="com.rollingstone.springframework.aop.example.Traveller">
        <constructor-arg index="0" type="long">
            <value>9</value>
        </constructor-arg>
        <constructor-arg index="1" type="java.lang.String">
            <value>Julia</value>
        </constructor-arg>
        <constructor-arg index="2" type="java.lang.String">
            <value>Parker</value>
        </constructor-arg>
        <constructor-arg index="3" type="java.lang.String">
            <value>
        </value>
        </constructor-arg>
        <constructor-arg index="4" type="java.lang.String">
            <value>434-45-4987</value>
        </constructor-arg>
        <constructor-arg index="5" type="java.time.LocalDate">
            <ref bean="dateOfBirth" />
        </constructor-arg>
        <constructor-arg index="6">
            <ref bean="airport02" />
        </constructor-arg>
        <constructor-arg index="7">
            <ref bean="airport03" />
        </constructor-arg>
        <constructor-arg index="8" type="int">
            <value>25</value>
        </constructor-arg>
        <constructor-arg index="9" type="java.lang.String">
            <value>M</value>
        </constructor-arg>
        <constructor-arg index="10" type="java.lang.String">
            <value>Non Veg</value>
        </constructor-arg>
    </bean>

```

```

    <bean id="traveller10"
class="com.rollingstone.springframework.aop.example.Traveller">
    <constructor-arg index="0" type="long">
        <value>10</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>David</value>
    </constructor-arg>
    <constructor-arg index="2" type="java.lang.String">
        <value>Boon</value>
    </constructor-arg>
    <constructor-arg index="3" type="java.lang.String">
        <value>
        </value>
    </constructor-arg>
    <constructor-arg index="4" type="java.lang.String">
        <value>434-45-4543</value>
    </constructor-arg>
    <constructor-arg index="5" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="6">
        <ref bean="airport03" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport04" />
    </constructor-arg>
    <constructor-arg index="8" type="int">
        <value>25</value>
    </constructor-arg>
    <constructor-arg index="9" type="java.lang.String">
        <value>M</value>
    </constructor-arg>
    <constructor-arg index="10" type="java.lang.String">
        <value>Non Veg</value>
    </constructor-arg>
</bean>

    <bean id="traveller11"
class="com.rollingstone.springframework.aop.example.Traveller">
    <constructor-arg index="0" type="long">
        <value>11</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>Porchia</value>

```

```

</constructor-arg>
<constructor-arg index="2" type="java.lang.String">
  <value>Masey</value>
</constructor-arg>
<constructor-arg index="3" type="java.lang.String">
  <value>
</value>
</constructor-arg>
<constructor-arg index="4" type="java.lang.String">
  <value>434-45-4345</value>
</constructor-arg>
<constructor-arg index="5" type="java.time.LocalDate">
  <ref bean="dateOfBirth" />
</constructor-arg>
<constructor-arg index="6">
  <ref bean="airport03" />
</constructor-arg>
<constructor-arg index="7">
  <ref bean="airport04" />
</constructor-arg>
<constructor-arg index="8" type="int">
  <value>25</value>
</constructor-arg>
<constructor-arg index="9" type="java.lang.String">
  <value>M</value>
</constructor-arg>
<constructor-arg index="10" type="java.lang.String">
  <value>Non Veg</value>
</constructor-arg>
</bean>

```

```

<bean id="traveller12"
class="com.rollingstone.springframework.aop.example.Traveller">
  <constructor-arg index="0" type="long">
    <value>12</value>
  </constructor-arg>
  <constructor-arg index="1" type="java.lang.String">
    <value>Steven</value>
  </constructor-arg>
  <constructor-arg index="2" type="java.lang.String">
    <value>Cook</value>
  </constructor-arg>
  <constructor-arg index="3" type="java.lang.String">
    <value>

```

```

        </value>
    </constructor-arg>
    <constructor-arg index="4" type="java.lang.String">
        <value>434-45-4393</value>
    </constructor-arg>
    <constructor-arg index="5" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="6">
        <ref bean="airport03" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport04" />
    </constructor-arg>
    <constructor-arg index="8" type="int">
        <value>25</value>
    </constructor-arg>
    <constructor-arg index="9" type="java.lang.String">
        <value>M</value>
    </constructor-arg>
    <constructor-arg index="10" type="java.lang.String">
        <value>Non Veg</value>
    </constructor-arg>
</bean>

```

```

    <bean id="traveller13"
class="com.rollingstone.springframework.aop.example.Traveller">
    <constructor-arg index="0" type="long">
        <value>13</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>Allistair</value>
    </constructor-arg>
    <constructor-arg index="2" type="java.lang.String">
        <value>Cook</value>
    </constructor-arg>
    <constructor-arg index="3" type="java.lang.String">
        <value>
        </value>
    </constructor-arg>
    <constructor-arg index="4" type="java.lang.String">
        <value>434-45-9459</value>
    </constructor-arg>
    <constructor-arg index="5" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>

```

```

</constructor-arg>
<constructor-arg index="6">
    <ref bean="airport04" />
</constructor-arg>
<constructor-arg index="7">
    <ref bean="airport05" />
</constructor-arg>
<constructor-arg index="8" type="int">
    <value>25</value>
</constructor-arg>
<constructor-arg index="9" type="java.lang.String">
    <value>M</value>
</constructor-arg>
<constructor-arg index="10" type="java.lang.String">
    <value>Non Veg</value>
</constructor-arg>
</bean>

```

```

<bean id="traveller14"
class="com.rollingstone.springframework.aop.example.Traveller">
    <constructor-arg index="0" type="long">
        <value>14</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>Stacey</value>
    </constructor-arg>
    <constructor-arg index="2" type="java.lang.String">
        <value>Winslet</value>
    </constructor-arg>
    <constructor-arg index="3" type="java.lang.String">
        <value>
        </value>
    </constructor-arg>
    <constructor-arg index="4" type="java.lang.String">
        <value>434-45-9564</value>
    </constructor-arg>
    <constructor-arg index="5" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="6">
        <ref bean="airport04" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport05" />
    </constructor-arg>

```

```

    <constructor-arg index="8" type="int">
        <value>25</value>
    </constructor-arg>
    <constructor-arg index="9" type="java.lang.String">
        <value>F</value>
    </constructor-arg>
    <constructor-arg index="10" type="java.lang.String">
        <value>Non Veg</value>
    </constructor-arg>
</bean>

```

```

    <bean id="traveller15"
class="com.rollingstone.springframework.aop.example.Traveller">
    <constructor-arg index="0" type="long">
        <value>15</value>
    </constructor-arg>
    <constructor-arg index="1" type="java.lang.String">
        <value>Steve</value>
    </constructor-arg>
    <constructor-arg index="2" type="java.lang.String">
        <value>Gates</value>
    </constructor-arg>
    <constructor-arg index="3" type="java.lang.String">
        <value>
    </value>
    </constructor-arg>
    <constructor-arg index="4" type="java.lang.String">
        <value>434-89-9459</value>
    </constructor-arg>
    <constructor-arg index="5" type="java.time.LocalDate">
        <ref bean="dateOfBirth" />
    </constructor-arg>
    <constructor-arg index="6">
        <ref bean="airport04" />
    </constructor-arg>
    <constructor-arg index="7">
        <ref bean="airport05" />
    </constructor-arg>
    <constructor-arg index="8" type="int">
        <value>25</value>
    </constructor-arg>
    <constructor-arg index="9" type="java.lang.String">
        <value>M</value>
    </constructor-arg>
    <constructor-arg index="10" type="java.lang.String">

```

```

        <value>Non Veg</value>
    </constructor-arg>
</bean>

<util:list id="listOfTravellersinAireport01" value-
type="com.rollingstone.springframework.aop.example.Traveller">
    <ref bean="traveller01" />
    <ref bean="traveller02" />
    <ref bean="traveller03" />
    <ref bean="traveller04" />
    <ref bean="traveller05" />
</util:list>

<util:list id="listOfTravellersinAireport02" value-
type="com.rollingstone.springframework.aop.example.Traveller">
    <ref bean="traveller06" />
    <ref bean="traveller07" />
    <ref bean="traveller08" />
    <ref bean="traveller09" />
</util:list>

<util:list id="listOfTravellersinAireport03" value-
type="com.rollingstone.springframework.aop.example.Traveller">
    <ref bean="traveller10" />
    <ref bean="traveller11" />
    <ref bean="traveller12" />
</util:list>

<util:list id="listOfTravellersinAireport04" value-
type="com.rollingstone.springframework.aop.example.Traveller">
    <ref bean="traveller13" />
    <ref bean="traveller14" />
    <ref bean="traveller15" />
</util:list>

</beans>

```

1.56 – Conclusion

In this session we saw how Spring framework is connected to real life concepts.