

◆ Case Study 1: XML-Based Configuration

■ Case Study Title: Hospital Management System

pom.xml

```
<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
https://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>com.example.hospital</groupId>
  <artifactId>hospital-management-xml</artifactId>
  <version>0.0.1-SNAPSHOT</version>
  <dependencies>
    <dependency>
      <groupId>org.springframework</groupId>
      <artifactId>spring-context</artifactId>
      <version>5.3.33</version>
    </dependency>
  </dependencies>
</project>
```

Patient.java

```
package com.example.hospital;
public class Patient {
    public void registerPatient() {
        System.out.println("Patient registered successfully.");
    }
    public void getPatientDetails() {
        System.out.println("Patient details.");
    }
}
```

Appointment.java

```
package com.example.hospital;
public class Appointment {
    public void bookAppointment() {
        System.out.println("Appointment booked successfully.");
    }
    public void cancelAppointment() {
        System.out.println("Your appointment cancelled successfully.");
    }
}
```

Billing.java

```
package com.example.hospital;
public class Billing {
    public void generateBill() {
        System.out.println("Invoice(Bill) generated successfully.");
    }
    public void sendBill() {
        System.out.println("Bill sent to the patients' email successfully.");
    }
}
```

HospitalService.java

```
package com.example.hospital;
public class HospitalService {
    private Patient patient;
    private Appointment appointment;
    private Billing billing;

    public void setPatient(Patient patient) {
        this.patient = patient;
    }
    public void setAppointment(Appointment appointment) {
        this.appointment = appointment;
    }
    public void setBilling(Billing billing) {
        this.billing = billing;
    }
    public void patient() {
        patient.registerPatient();
        patient.getPatientDetails();
    }

    public void appointment() {
        appointment.bookAppointment();
        appointment.cancelAppointment();
    }

    public void bill() {
        billing.generateBill();
        billing.sendBill();
    }
}
```

MainApp.java

```
package com.example.hospital;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;
public class MainApp {
    public static void main(String[] args) {
        ApplicationContext context = new
ClassPathXmlApplicationContext("applicationContext.xml");
        HospitalService service = (HospitalService) context.getBean("hospitalService");
        service.patient();
        service.appointment();
        service.bill();
    }
}
```