Exercise 1 : **Configuring a Basic Spring Application**

**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  
 http://maven.apache.org/xsd/maven-4.0.0.xsd">  
  
 <modelVersion>4.0.0</modelVersion>  
  
 <groupId>com.library</groupId>  
 <artifactId>SPRING1</artifactId>  
 <version>1.0-SNAPSHOT</version>  
  
 <properties>  
 <maven.compiler.source>1.8</maven.compiler.source>  
 <maven.compiler.target>1.8</maven.compiler.target>  
 </properties>  
  
 <repositories>  
 <repository>  
 <id>central</id>  
 <url>https://repo1.maven.org/maven2</url>  
 </repository>  
 </repositories>  
  
 <dependencies>  
 <!-- Spring Core Dependencies -->  
 <dependency>  
 <groupId>org.springframework</groupId>  
 <artifactId>spring-context</artifactId>  
 <version>5.3.30</version>  
 </dependency>  
  
 <dependency>  
 <groupId>org.springframework</groupId>  
 <artifactId>spring-beans</artifactId>  
 <version>5.3.30</version>  
 </dependency>  
  
 <dependency>  
 <groupId>org.springframework</groupId>  
 <artifactId>spring-core</artifactId>  
 <version>5.3.30</version>  
 </dependency>  
  
 <dependency>  
 <groupId>org.springframework</groupId>  
 <artifactId>spring-jcl</artifactId>  
 <version>5.3.30</version>  
 </dependency>  
  
 <dependency>  
 <groupId>org.springframework</groupId>  
 <artifactId>spring-expression</artifactId>  
 <version>5.3.30</version>  
 </dependency>  
 </dependencies>  
  
</project>

MainAPP.JAVA

package com.library;  
  
import com.library.service.BookService;  
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");  
  
 BookService bookService = (BookService) context.getBean("bookService");  
 bookService.addBook("The Harry Potter");  
 }  
}

BookService

package com.library.service;  
  
import com.library.repository.BookRepository;  
  
public class BookService {  
 private BookRepository bookRepository;  
  
 // Setter injection  
 public void setBookRepository(BookRepository bookRepository) {  
 this.bookRepository = bookRepository;  
 }  
  
 public void addBook(String bookName) {  
 System.*out*.println("Adding book: " + bookName);  
 bookRepository.saveBook(bookName);  
 }  
}

Book Repo

package com.library.repository;  
  
public class BookRepository {  
 public void saveBook(String bookName) {  
 System.*out*.println("Saving book to database: " + bookName);  
 }  
}

applicationContext.xml

<?xml version="1.0" encoding="UTF-8"?>  
<beans xmlns="http://www.springframework.org/schema/beans"  
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:schemaLocation="  
 http://www.springframework.org/schema/beans  
 http://www.springframework.org/schema/beans/spring-beans.xsd">  
  
 <!-- Bean for Repository -->  
 <bean id="bookRepository" class="com.library.repository.BookRepository" />  
  
 <!-- Bean for Service with dependency injection -->  
 <bean id="bookService" class="com.library.service.BookService">  
 <property name="bookRepository" ref="bookRepository"/>  
 </bean>  
  
</beans>

