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

**Code:**

//BookRepository.java

package com.example.librarymanagement.repository;

public class BookRepository {

    public void save(String bookName) {

        System.out.println("Saving book: " + bookName);

    }

}

//BookService.java

package com.example.librarymanagement.service;

import com.example.librarymanagement.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.save(bookName);

    }

}

//App.java

package com.example.librarymanagement;

import com.example.librarymanagement.service.BookService;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

public class App {

    public static void main(String[] args) {

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

        BookService bookService = (BookService) context.getBean("bookService");

        bookService.addBook("The Great Gatsby");

    }

}

//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 id="bookRepository" class="com.example.librarymanagement.repository.BookRepository" />

    <bean id="bookService" class="com.example.librarymanagement.service.BookService">

        <property name="bookRepository" ref="bookRepository" />

    </bean>

</beans>

**Output:**

A screenshot of a computer program

AI-generated content may be incorrect.

**Exercise 2: Implementing Dependency Injection**

**Code:**

//BookRepository.java

package com.example.librarymanagement.repository;

public class BookRepository {

    public void save(String bookName) {

        System.out.println("Saving book: " + bookName);

    }

}

//BookService.java

package com.example.librarymanagement.service;

import com.example.librarymanagement.repository.BookRepository;

public class BookService {

    private BookRepository bookRepository;

    public void setBookRepository(BookRepository bookRepository) {

        this.bookRepository = bookRepository;

    }

    public void addBook(String bookName) {

        System.out.println("Adding book: " + bookName);

        bookRepository.save(bookName);

    }

}

//App.java

package com.example.librarymanagement;

import com.example.librarymanagement.service.BookService;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

public class App {

    public static void main(String[] args) {

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

        BookService bookService = (BookService) context.getBean("bookService");

        bookService.addBook("The Great Gatsby");

    }

}

//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 id="bookRepository" class="com.example.librarymanagement.repository.BookRepository" />

    <bean id="bookService" class="com.example.librarymanagement.service.BookService">

        <property name="bookRepository" ref="bookRepository" />

    </bean>

</beans>

**Output:**

A screenshot of a computer program

AI-generated content may be incorrect.

**Exercise 4: Creating and Configuring a Maven Project**

**Code:**

//BookRepository.java

package com.example.librarymanagement.repository;

public class BookRepository {

    public void save(String bookName) {

        System.out.println("Saving book: " + bookName);

    }

}

//BookService.java

package com.example.librarymanagement.service;

import com.example.librarymanagement.repository.BookRepository;

public class BookService {

    private BookRepository bookRepository;

    public void setBookRepository(BookRepository bookRepository) {

        this.bookRepository = bookRepository;

    }

    public void addBook(String bookName) {

        System.out.println("Adding book: " + bookName);

        bookRepository.save(bookName);

    }

}

//App.java

package com.example.librarymanagement;

import com.example.librarymanagement.service.BookService;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

public class App {

    public static void main(String[] args) {

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

        BookService bookService = (BookService) context.getBean("bookService");

        bookService.addBook("The Great Gatsby");

    }

}

//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 id="bookRepository" class="com.example.librarymanagement.repository.BookRepository" />

    <bean id="bookService" class="com.example.librarymanagement.service.BookService">

        <property name="bookRepository" ref="bookRepository" />

    </bean>

</beans>

**Output:**

A screenshot of a computer program

AI-generated content may be incorrect.