**Spring Core and Maven.**

I have made a single program implementing all the mandatory and additional features and here I m describing what I did in those exercises  
  
**Exercise 1: Configuring a Basic Spring Application**

Set up a basic Spring project with XML configuration.

**What I did:**

Created a Maven project named LibraryManagement.

Added Spring core dependencies (spring-context) to pom.xml.

Created applicationContext.xml in src/main/resources.

Defined beans for:

BookService

BookRepository

Created com.cognizant.LibraryManagement.Service.BookService and com.cognizant.LibraryManagement.Repository.BookRepository.

Created LibraryManagementApplication.java to:

Load the Spring context using ClassPathXmlApplicationContext

Retrieve and use the BookService bean.

**Exercise 2: Implementing Dependency Injection**

Connect BookService and BookRepository using Spring’s IoC container.

**What I did:**

Modified applicationContext.xml to wire bookRepository into bookService using:

Constructor injection with <constructor-arg>

Setter injection with <property>

Updated BookService.java to include:

A constructor accepting BookRepository

A setter method for BookRepository

Verified injection by calling a method from BookService in LibraryManagementApplication.

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

Setup project and dependencies.

**What I did:**

Created Maven project LibraryManagement.

Added dependencies in pom.xml:

spring-context

spring-aop

spring-webmvc

Configured Maven Compiler Plugin

**Exercise 5: Configuring the Spring IoC Container**

Central configuration of beans and dependencies.

**What I did:**

Created applicationContext.xml with <beans> to define and wire beans.

Verified bean setup using Spring context and logs.

