**Solution Architecture Document**

**Project Name:** Booknest Online Bookstore  
**Team ID:** LTVIP2025TMID42803  
**Date:** 26-06-2025  
**Maximum Marks:** 4 Marks

### 1. Solution Overview

To deliver a scalable, secure, and user-friendly online bookstore platform that:

* Simplifies book discovery and purchasing
* Provides robust inventory management for admins
* Ensures seamless payment integration
* Supports high traffic with responsive design

### 2. Key Architectural Goals

* ✔ Effortless Book Browsing (Search, Filters, Categories)
* ✔ End-to-End Order Management (Cart → Checkout → Delivery Tracking)
* ✔ Scalable Authentication (JWT for Users/Admins)
* ✔ Secure Payment Processing (Stripe/PayPal Integration)
* ✔ Real-Time Notifications (Order Status Updates)

### 3. Solution Architecture Diagram

[Frontend: React.js]  
 ↑↓ HTTP/HTTPS  
[Backend: Spring Boot]  
 ↑↓ REST APIs  
[Database: MongoDB Atlas]  
 ↑↓  
[External Services: Payment Gateway, Email Service]