TECHNOLOGY STACK (ARCHITECTURE AND STACK)

Date	23 JUNE 2025
Team ID	LTVIP2025TMID53063
Project name	**BOOK NEST: WHERE STORIES NESTLE**
Marks	4 MARKS

TECHNICAL ARCHITECTURE:

△ Technical Architecture of BookNest

The technical architecture of **BookNest** follows a modern, scalable **Three-Tier Architecture** and can be extended to a **Microservices-based** or **Serverless** model depending on scale and flexibility needs.

👉 1. Architecture Layers

◀ A. Presentation Layer (Frontend)

- **Technology Stack**:

    o HTML5, CSS3, JavaScript

    o React.js or Angular (for dynamic SPA)

    o Tailwind CSS or Bootstrap (for UI styling)

- **Responsibilities**:

    o Display user interface (UI)

    o Communicate with backend via REST APIs

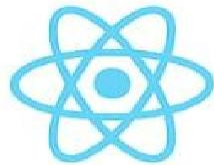   o Provide interactive experience (search, filters, cart, etc.)

◀ B. Application Layer (Backend/API)

- **Technology Stack**:

    o Node.js with Express.js / Django / Spring Boot

    o RESTful API (or GraphQL if needed)

    o Bcrypt/Argon2 for password hashing

- **Responsibilities**:

    o Business logic (cart handling, order processing, user auth)

    o API endpoints for frontend

    o Integration with payment gateways (e.g., Razorpay, Stripe)

Technology Stack for Booknest

FRONTEND

BACKEND

DATABASE

INFRASTRUCTURE