

# Project Design Phase

## Solution Architecture

Date: 29 June 2025

Team ID: LTVIP2025TMID43034

Project Name: BookNest: Where Stories Nestle

Maximum Marks: 4 Marks

BookNest's architecture consists of:

- Frontend: React.js web interface and Flutter mobile app.
- Backend: Node.js server with REST API, NLP module using Python.
- Database: MongoDB for storing user data, preferences, and metadata.
- ML Pipeline: Model for genre classification, sentiment analysis, and personalized recommendations using scikit-learn and TensorFlow.
- Deployment: AWS (EC2, Lambda, S3), scalable to support thousands of users.

The architecture bridges the user's behavior with personalized literary discovery.