**Project Design Phase**

**Solution Architecture**

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| Date | 28 June 2025 |
| Team ID | LTVIP2025TMID59298 |
| Project Name | BookNest: Where Stories Nestle |
| Maximum Marks | 4 Marks |

**Solution Architecture:**

The architecture of BookNest is structured into three main layers. The first layer is the client/browser, where users interact with the frontend built in React.js. The second layer is the backend, built with Node.js and Express.js, which handles all API requests, business logic, and communication with the database. The third layer is the database, a cloud-hosted MongoDB instance, which stores all data related to books, users, and orders.

Data flows in the following sequence:

The user sends a request through the React.js interface.

The React app uses Axios or Fetch to call RESTful APIs provided by the Express.js server.

The server handles the logic, communicates with MongoDB, and sends back the appropriate response.

This modular and service-based design allows for maintainability and independent deployment of each component.

**Example - Solution Architecture Diagram:**

