Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	15 April 2025
Team ID	SWTID1743511993
Project Name	Shopez: E-Commerce Application
Maximum Marks	4 Marks

Technical Architecture:
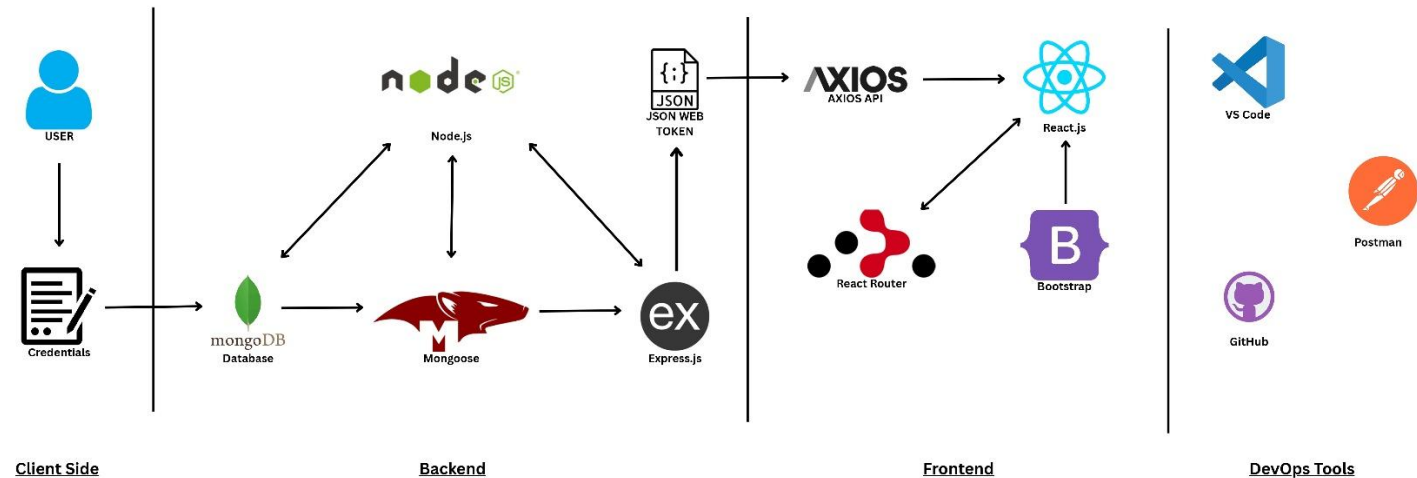
Table 1: Component Table

S.no	Component	Description	Technology
1.	User Interface	Web UI to interact with the system	HTML, CSS, JavaScript, React.js
2.	Application Logic-1	Logic for user authentication	Node.js, Express.js
3.	Application Logic-2	Logic for user registration	Node.js, Express.js, JWT
4.	Application Logic-3	Routing and form handling	React Router, Axios
5.	Database	Stores user credentials and data	MongoDB
6.	Cloud Database	MongoDB used via cloud service like MongoDB Atlas	MongoDB Atlas.
7.	External API-1	Used for HTTP calls between frontend and backend	Axios API

Table 2: Architecture & Design Characteristics

S.no	Characteristics	Description	Technology
1.	Open-Source Frameworks	All major frameworks used are open-source	Node.js, Express.js, React.js, MongoDB
2.	Security Implementations	Token-based authentication & hashed credentials	JWT, Bcrypt, HTTPS, Helmet
3.	Scalable Architecture	3-tier architecture with separation of concerns	Frontend-Backend-DB
4.	Performance	Optimized API calls and component-based UI rendering	Axios, React Virtual DOM, Caching