**Project Design Phase-II**

**Technology Stack (Architecture & Stack)**

|  |  |
| --- | --- |
| Date | 26-05-2025 |
| Team ID | LTVIP2025TMID21098 |
| Project Name | Shopsmart: Your Digital Grocery |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

The *OrderOnTheGo* platform is built using the **MERN stack** and follows a structured **3-tier architecture**:

* **Presentation Layer**: Developed with React.js to support dynamic rendering, routing, and role-based dashboards (User, Restaurant, Admin).
* **Business Logic Layer**: Uses Node.js with Express.js to handle API requests, authentication, cart management, and order processing.
* **Data Layer**: MongoDB stores all data related to users, products, restaurants, orders, and admin functions.

**Table-1 : Components & Technologies:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Component** | **Description** | **Technology Used** |
| 1 | **User Interface** | React-based web UI for customers, sellers, and admins | React.js, JavaScript, CSS, HTML |
| 2 | **Application Logic - 1** | Handles cart functionality, product search, checkout process, and user login | Node.js, Express.js |
| 3 | **Application Logic - 2** | Admin panel for product and seller management, seller dashboard | React.js (components), Node.js (backend) |
| 4 | **Database** | Stores users, sellers, orders, products, cart data, and admin controls | MongoDB |

**Table-2: Application Characteristics:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Characteristics** | **Description** | **Technology** |
| 1 | Open-Source Frameworks | Frontend and backend technologies | React.js, Node.js, Express.js |
| 2 | Scalable Architecture | Modular 3-tier design with token-based access control | RESTful APIs, JWT, MongoDB |

**References:**

[**React.js Documentation**](https://react.dev/)

[**Node js Best Practice**](https://nodejs.org/en/learn/getting-started/introduction-to-nodejs)

[**JSON Web Server Reference**](https://www.npmjs.com/package/json-server)

[**https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d**](https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d)

[**MongoDB docs**](https://www.mongodb.com/docs/)