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

Date	31 January 3035
Team ID	LTVIP2026TMIDS86089
Project Name	Order On The Go: Your On-Demand Food Ordering Solution
Maximum Marks	4 Marks

Technical Architecture:

Table-1: Components & Technologies

S. No	Component	Description	Technology
1	User Interface	How users interact with the app (browse menus, cart, profile, admin panel)	React.js, HTML, CSS, JavaScript
2	Application Logic-1	Handles user authentication, cart operations, order placement	Node.js, Express.js
3	Application Logic-2	Payment gateway integration (secure transactions)	Razor pay / Stripe API
4	Application Logic-3	Admin dashboard logic (manage products, orders, promotions)	Node.js, Express.js
5	Database	Stores users, orders, products, carts, reviews	MongoDB (NoSQL)
6	Cloud Database	Cloud-hosted database for scalability	MongoDB Atlas
7	File Storage	Stores product images and user profile pictures	AWS S3 / Local filesystem
8	External API-1	Location services for delivery tracking	Google Maps API
9	External API-2	Notification services (order confirmation, delivery updates)	Firebase Cloud Messaging
10	Machine Learning Model	Personalized recommendations (future scope)	Recommendation engine (ML model in Python/Scikit-Learn)
11	Infrastructure	Deployment environment	Local server (Node.js), Cloud (AWS EC2 / Kubernetes)

Table-2: Application Characteristics

S. No	Characteristics	Description	Technology
1	Open-Source Frameworks	Frameworks used for frontend/backend	React.js, Node.js, Express.js, MongoDB
2	Security Implementations	Secure login, encrypted payments, role-based access controls	JWT, HTTPS
3	Scalable Architecture	3-tier architecture (UI, backend, database); microservices for APIs	MERN stack
4	Availability	Ensures uptime with load balancing and distributed servers	AWS Load Balancer, Cloud hosting
5	Performance	Optimized for speed (caching, CDN, efficient queries)	Redis cache, CDN (Cloudflare), optimized MongoDB queries