

Project Design Phase-II

Solution Requirements (Functional & Non-Functional)

Project: ShopEase – E-Commerce System

Maximum Marks: 4 Marks

Functional Requirements

FR No.	Functional Requirement	Sub-Requirements
FR-1	User Authentication	Signup, Login (JWT), Password reset, Role-based access
FR-2	Product Browsing	Product list, product details, image gallery
FR-3	Search & Filters	Search bar, category/gender/size/price filters
FR-4	Shopping Cart	Add, update quantity, remove
FR-5	Order Placement	Checkout, payment, address selection
FR-6	Order Management	Order history, tracking
FR-7	Admin – Products	Add/edit/delete, upload images
FR-8	Admin – Orders	View all orders, update status
FR-9	Notifications	Order confirmation, status update emails

Non-Functional Requirements

NFR No.	Description
NFR-1	Usability – Clean UI using React + Bootstrap
NFR-2	Security – JWT, encryption, safe payments
NFR-3	Reliability – No data loss
NFR-4	Performance – Fast load, instant filters
NFR-5	Availability – 99.9% uptime
NFR-6	Scalability – Supports many users
NFR-7	Maintainability – Modular MERN architecture
NFR-8	Compatibility – Cross-browser, responsive