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St. MOTHER THERESA ENGINEERING COLLEGE

COMPUTER SCIENCE ENGINEERING

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Completed the project named as

Phase 1

FRONT END TECHNOLOGY

COMMERCE PRODUCT

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Phase 1 — Problem Understanding & Requirements (Deadline – Week 7)

Problem Statement

Traditional retail businesses struggle to reach wider audiences and manage sales efficiently. Customers face issues like limited accessibility, lack of product information, and time-consuming purchases. The solution is to develop a cloud-based E-Commerce platform using IBM front-end technologies, providing a secure, scalable, and user-friendly shopping experience.

Users & Stakeholders

End Users (Customers): Browse products, add to cart, place orders.

Admin: Manage products, categories, inventory, and orders.

Business Owners: Track sales, customer behavior, and revenue.

Developers: Build and maintain the platform.

User Stories

As a user, I want to browse products by category so that I can easily find what I need.

As a user, I want to add/remove items from my cart so I can manage my purchase.

As a user, I want to make secure payments online so that I can order without risk.

As an admin, I want to add and update products so customers always see the latest items.

As an admin, I want to view and update order statuses so customers stay informed.

MVP Features (Minimum Viable Product)

User registration & login

Product catalog with search & filter

Shopping cart functionality

Order placement & payment gateway integration

Admin panel for product management

Wireframes / API Endpoint List

Wireframes:

Homepage (product listings)

Cart page

Checkout page

Admin dashboard

API Endpoints (example with Node.js REST API):

POST /api/register – User registration

POST /api/login – User login

GET /api/products – Fetch all products

POST /api/cart – Add to cart

POST /api/order – Place order

PUT /api/admin/product/:id – Update product

Acceptance Criteria

Users can register/login successfully.

Users can add/remove items from cart.

Orders are placed and confirmed via email/notification.

Admin can manage product inventory.

System is deployed on IBM Cloud.