System Design

This document provides the system architecture and component interactions for the Pixelz Order Checkout feature.

# 1. System Components

- API Gateway / Web API: Exposes HTTP endpoints for order search and submission.

- OrderService: Handles business logic for searching and submitting orders.

- PaymentService (Mocked): Simulates external payment processing (success/failure).

- EmailService (Mocked): Simulates sending confirmation emails.

- ProductionService (Mocked): Simulates pushing successful orders into production system.

- Database: Stores Customers, Orders, Products, OrderDetails.

# 2. High-Level Architecture

The API controller acts as the entry point and delegates to the OrderService. Based on the business logic, the service communicates with the mock PaymentService, EmailService, and ProductionService. The database holds persistent data such as orders, products and customers.

