

# Designing an E-Commerce Platform Using Top-Down Approach

Context:

"TechGadgets" is a specialized company for selling electronic devices online. Using a top-down approach:

1. define the system architecture
2. identify key subsystems and modules
3. detail components within those modules, and
4. outline major interaction flows.

**(1) High-Level System Architecture Diagram:** Create a diagram that illustrates the major subsystems (User management, Product Management, Shopping cart, etc..) within the E-Commerce Platform and their interactions.

**(2) Module-Level Diagram for Shopping Subsystem:** Provide a detailed diagram showing the modules within the Shopping Cart Subsystem, such as Cart Management and Checkout Module, and depict their relationships.

**(3) Component Specification for Checkout Module:** Write a brief specification for key components within the Checkout Module, including their responsibilities and interactions with other components, Modules and/or subsystems.

**(4) Sequence Diagram for Placing an Order:** Design a sequence diagram that outlines the process flow from adding products to the cart to receiving an order confirmation.