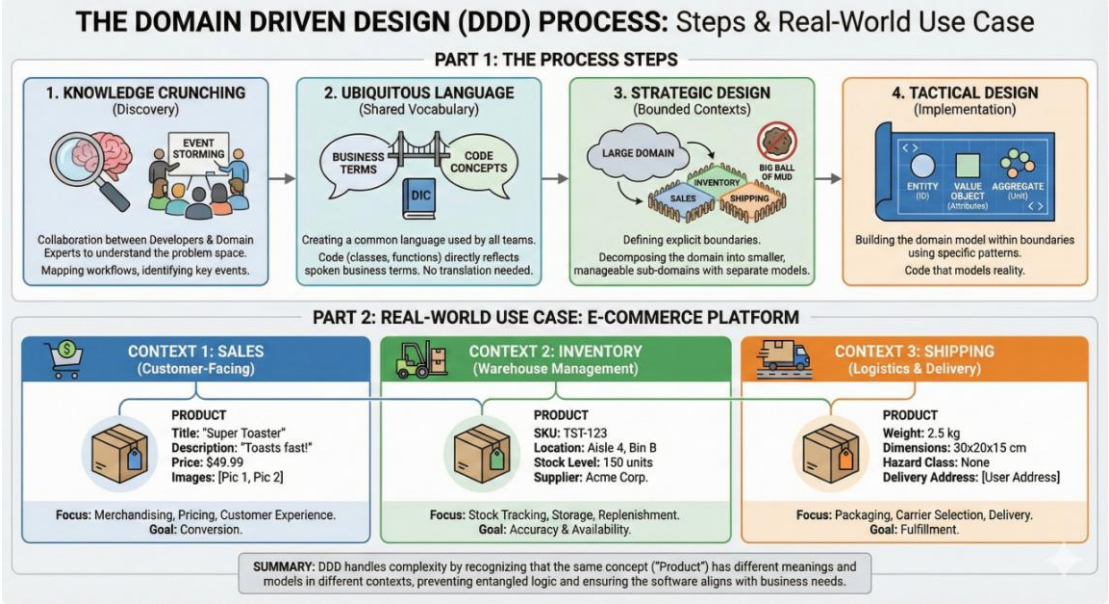
ASSIGNMENT 1

Create an infographic illustrating the Domain Driven Design (DDD) process. Highlight steps within it and a real world use case.



1. The Domain-Driven Design (DDD) Process Steps:

The infographic outlines a four-step linear process for applying DDD:

✧ **Knowledge Crunching (Discovery)**
✓ This step involves collaboration between Developers and Domain Experts to understand the problem space.
✓ Activities include mapping workflows and identifying key events, often using techniques like "Event Storming".

✧ **Ubiquitous Language (Shared Vocabulary)**
✓ The goal is to create a common language used by all teams.
✓ The code (classes, functions) should directly reflect spoken business terms, meaning no translation is needed between technical and business teams.
✓ The visual shows a bridge connecting "Business Terms" with "Code Concepts".

✧ **Strategic Design (Bounded Contexts)**

- ✓ This involves defining explicit boundaries and decomposing a "Large Domain" into smaller, manageable sub-domains with separate models (e.g., Sales, Inventory, Shipping).
- ✓ This prevents the creation of a "Big Ball of Mud" (entangled, messy code).

✧ **Tactical Design (Implementation)**

- ✓ This is the phase of building the domain model within the defined boundaries using specific patterns.
- ✓ The result is code that models reality, using patterns shown visually such as Entity (ID), Value Object (Attributes), and Aggregate (Unit).

2. Real-World Use Case: E-Commerce Platform :

The infographic illustrates DDD using an E-Commerce Platform, demonstrating how a single concept—a "Product"—is modeled differently depending on the specific "Bounded Context".

✧ **Context 1: Sales (Customer-Facing)**

- ✓ In this context, a "Product" is defined by attributes relevant to the customer, such as Title ("Super Toaster"), Description ("Toasts fast!"), Price ($49.99), and Images.
- ✓ Focus: Merchandising, Pricing, Customer Experience.
- ✓ Goal: Conversion.

✧ **Context 2: Inventory (Warehouse Management)**

- ✓ Here, the same "Product" is defined by logistical attributes: SKU (TST-123), Location (Aisle 4, Bin B), Stock Level (150 units), and Supplier.
- ✓ Focus: Stock Tracking, Storage, Replenishment.
- ✓ Goal: Accuracy & Availability.

✧ **Context 3: Shipping (Logistics & Delivery)**

- ✓ For shipping, the "Product" model focuses on physical characteristics: Weight (2.5 kg), Dimensions (30x20x15 cm), Hazard Class, and Delivery Address.
- ✓ Focus: Packaging, Carrier Selection, Delivery.
- ✓ Goal: Fulfillment.

- **Summary of Use Case** : DDD handles complexity by recognizing that the same concept ("Product") has different meanings and models in different contexts, which prevents entangled logic and ensures the software aligns with business needs.