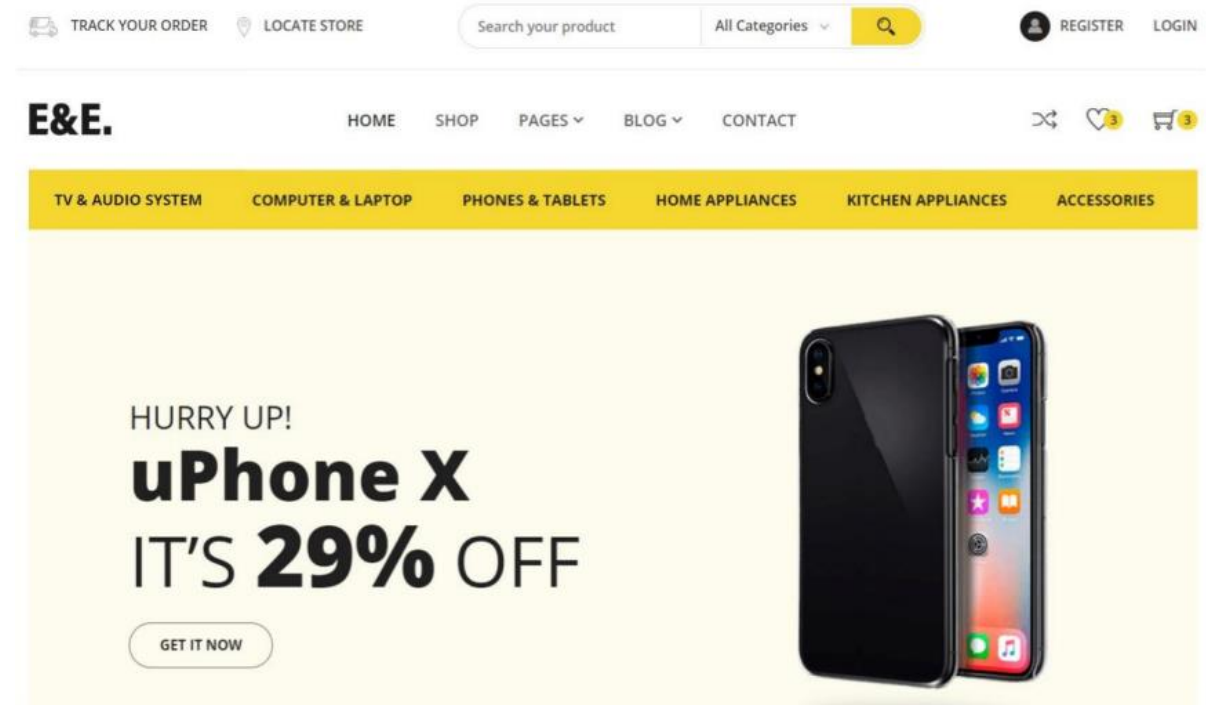# Understand E-Commerce Domain

- Our Domain: E-Commerce

- Understand Domain and Decompose small pieces
  - Use Cases
  - Functional Requirements
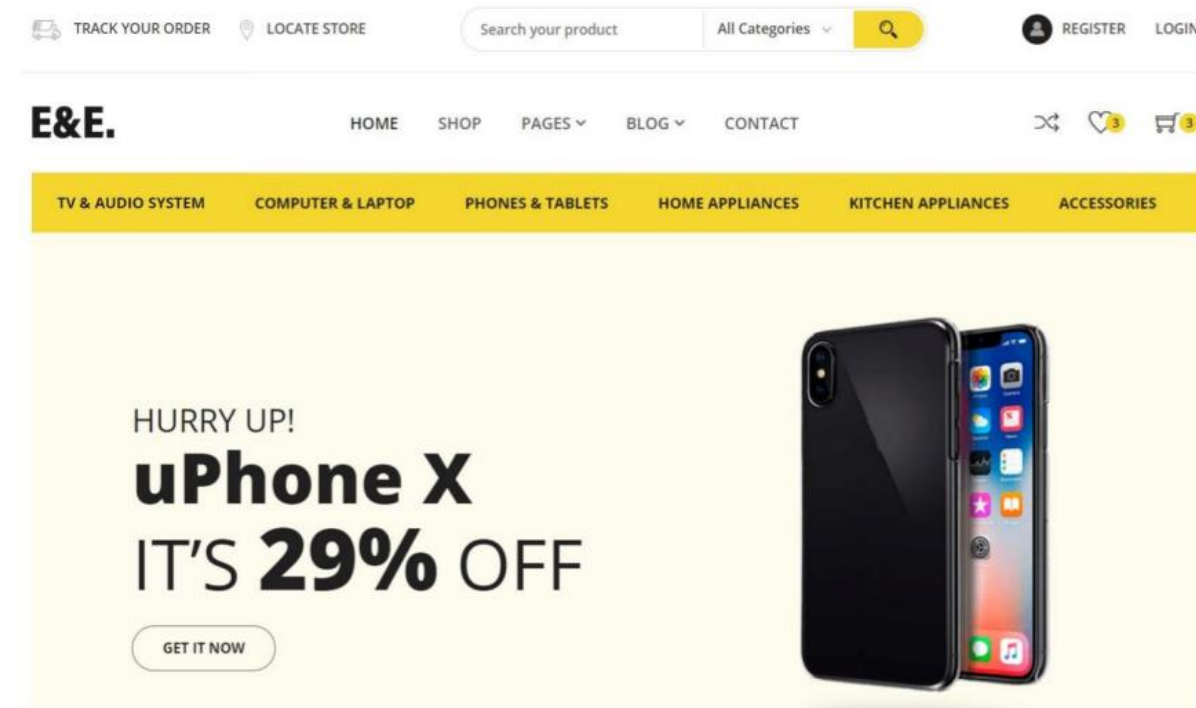
Identify steps;

- Requirements and Modelling

- Identify User Stories

- Identify the Nouns in the user stories

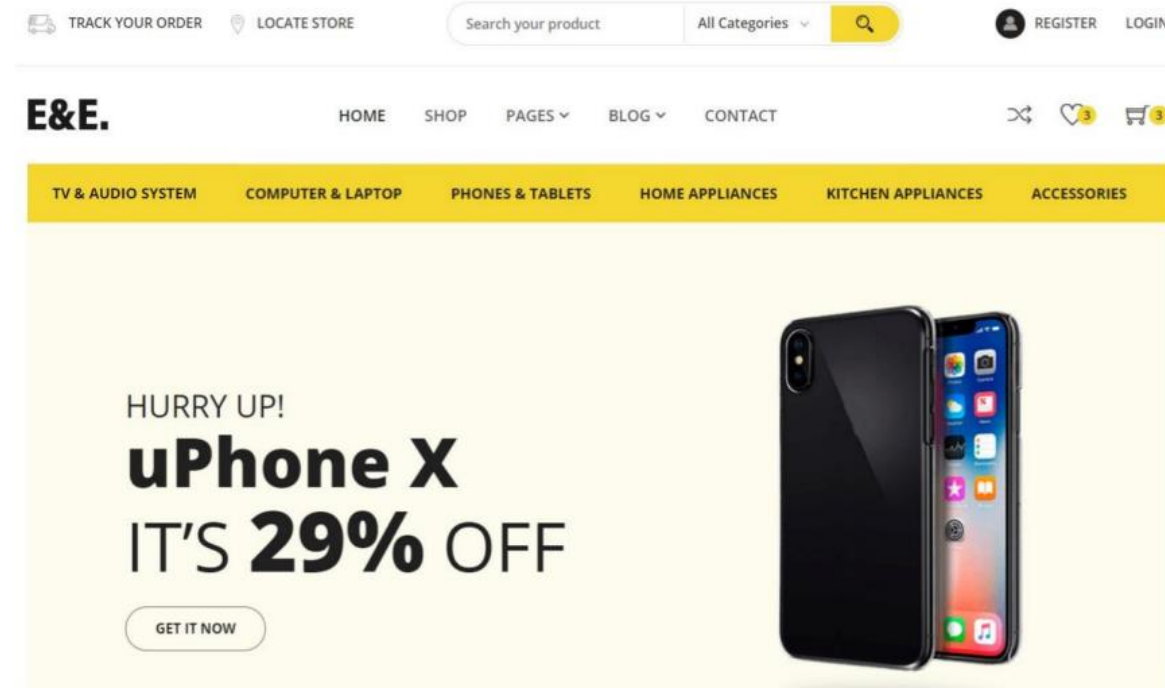- Identify the Verbs in the user stories

Understand E-Commerce Domain: Functional Requirements

- List products

- Filter products as per brand and categories

- Put products into the shopping cart

- Apply coupon for discounts and see the total cost all for all of the items in shopping cart

- Checkout the shopping cart and create an order

- List my old orders and order items history

Understand E-Commerce Domain: User Stories (Use Cases)

- As a user I want to list products

- As a user I want to filter products as per brand and categories

- As a user I want to put products into the shopping cart so that I can check out quickly later

- As a user I want to apply coupon for discounts and see the total cost all for all of the items that are in my cart

- As a user I want to checkout the shopping cart and create an order

- As a user I want to list my old orders and order items history

- As a user I want to login the system as a user and the system should remember my shopping cart items
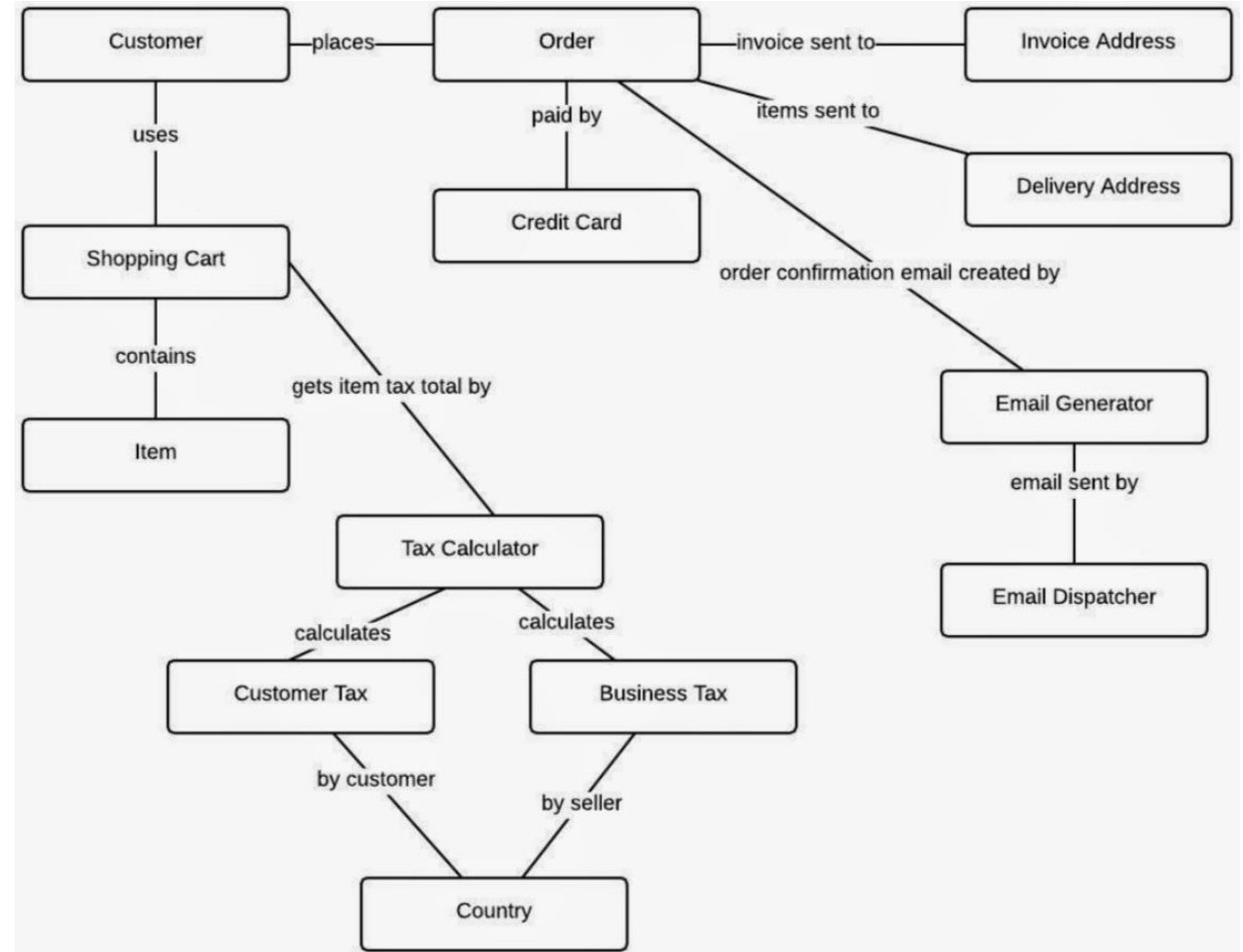
Analysis E-Commerce Domain - Nouns and Verbs

- As a user I want to **list** **products**

- As a user I want to be able to **filter** **products** as per **brand** and **categories**

- As a user I want to **see** the supplier of **product** in the product detail screen with all characteristics of product

- As a user I want to be able to **put** **products** that I want to **purchase** in to the **shopping cart** so I can check out

- As a user I want to **see** the total cost all for all of the **items** that are in my **cart** so that I see if I can afford to buy

- As a user I want to **see** the total cost of each **item** in the **shopping cart** so that I can re-check the price for items

- As a user I want to be able to **specify** the **address** of where all of the products are going to be sent to

- As a user I want to be able to **add** a note to the **delivery address** so that I can provide special instructions

- As a user I want to be able to **specify** my **credit card** information during **check out** so I can pay for the items

- As a user I want system to **tell** me how many items are in **stock** so that I know how many items I can purchase

- As a user I want to **receive** **order** confirmation email with **order** number so that I have proof of purchase

- As a user I want to **list** my old **orders** and **order items history**

- As a user I want to **login** the system as a **user** and the system should remember my shopping cart items
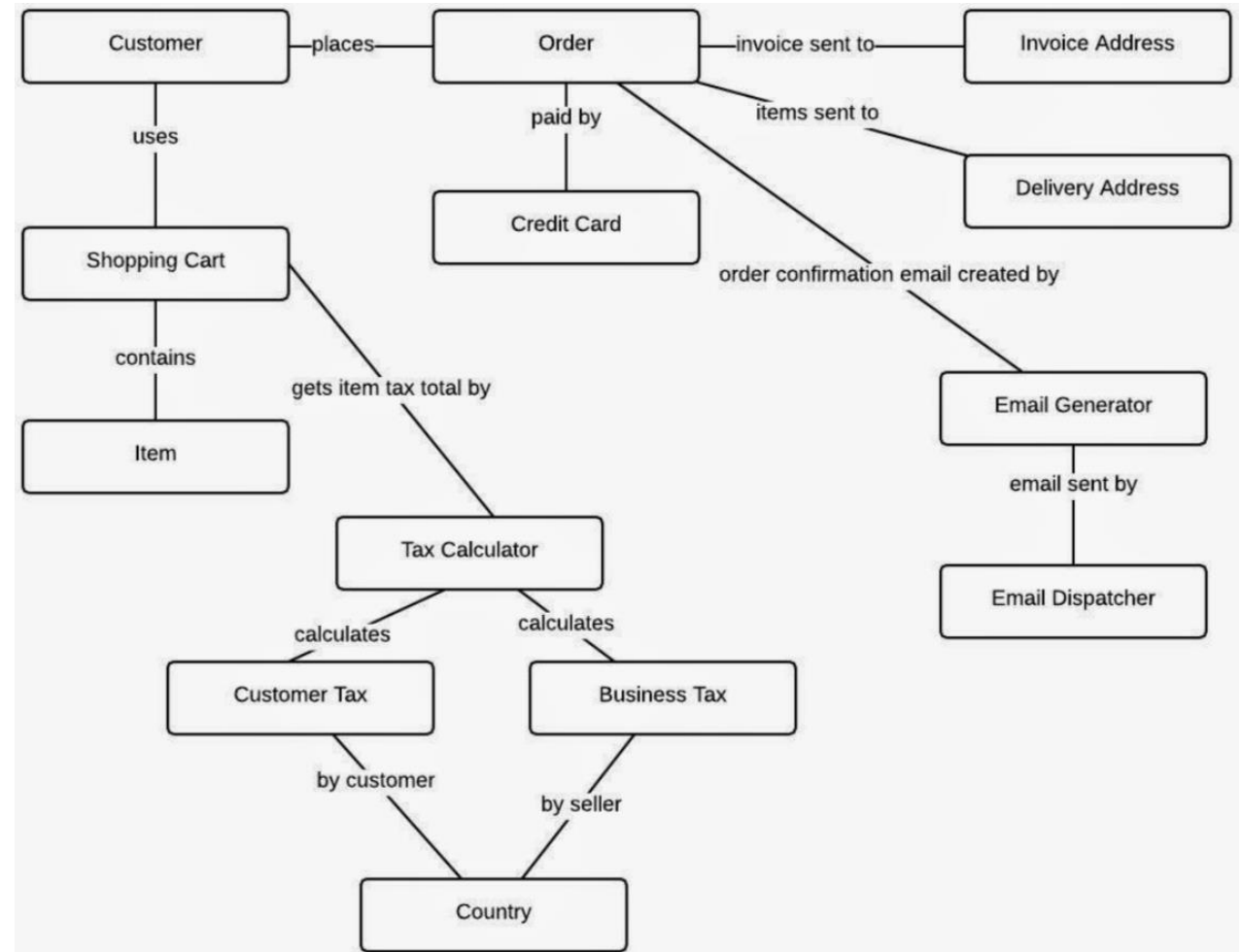
Analysis E-Commerce Domain - Nouns

- Customer

- Order

- Order Details

- Product

- Shopping Cart

- Shopping Cart Items

- Supplier

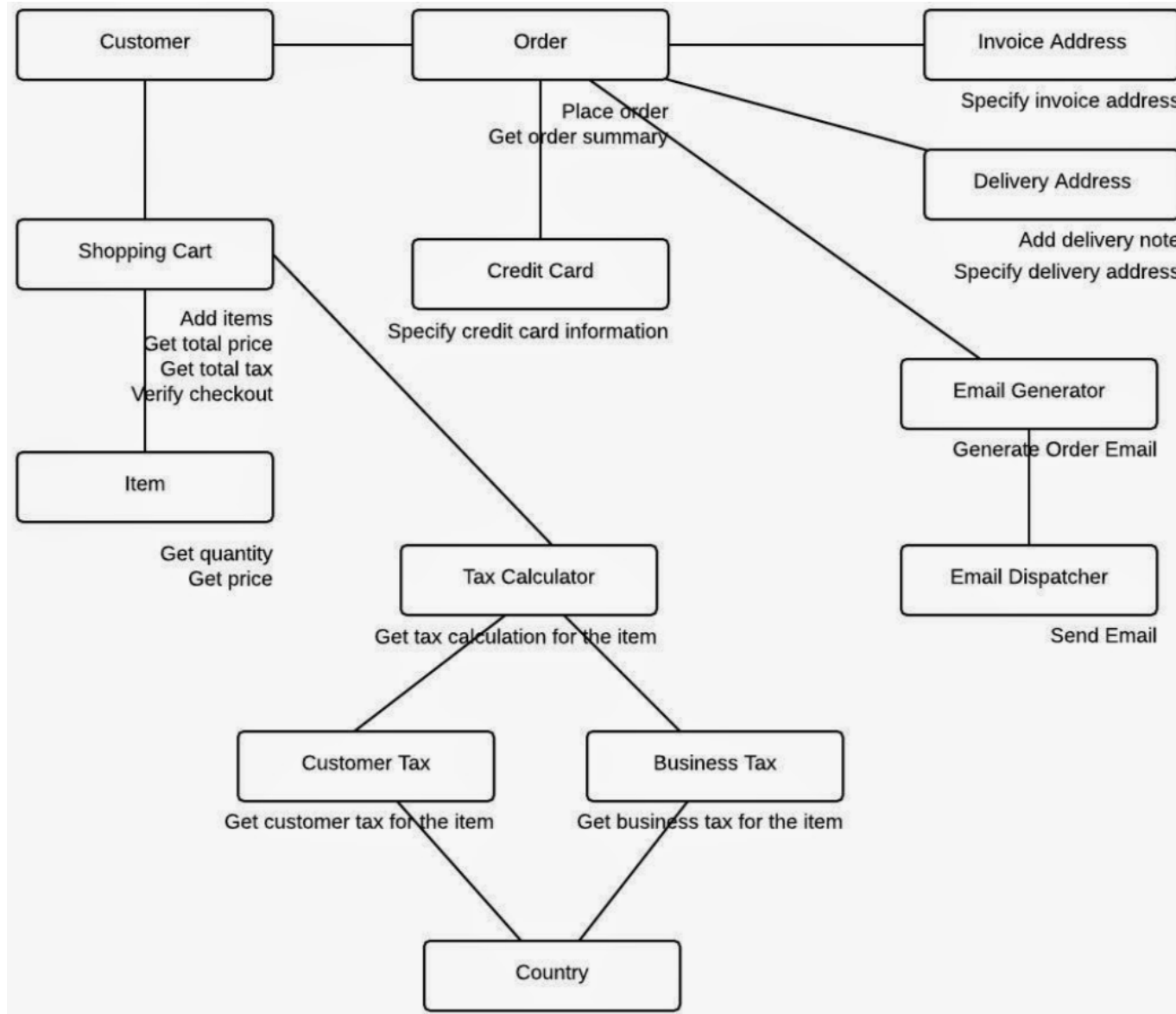- User

- Address

- Brand

- Category

Analysis E-Commerce Domain - Verbs

- List products applying to paging
- Filter products by brand, category and supplier
- See product all information in the details screen
- Put products in to the shopping cart
- See total cost for all of the items
- See total cost for each item
- Checkout order with purchase steps
- Specify delivery address
- Specify delivery note for delivery address
- Specify credit card information
- Pay for the items
- Tell me how many items are in stock
- Receive order confirmation email
- List the order and details history
- Login the system and remember the shopping cart items

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Object Responsibility Diagram

Identifying and Decomposing Microservices for E-Commerce Domain

Main Microservices

- Users
- Product
- Customers
- Shopping Cart
- Discount
- Orders

Order Transactional Microservices

- Orders
- Payment
- Inventory
- Shipping
- Billing
- Notification

Intelligence Microservices

- Identity
- Marketing
- Location
- Rating
- Recommendation