**E-Commerce**

**Level 0 (Context Diagram):**

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| User |

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| E-commerce System |

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| Data Stores (DBs) |

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**Explanation:**

* **External Entity (User):** The customer interacting with the app.
* **Process (E-commerce System):** Manages login, product catalog, cart, and payment.
* **Data Stores:**
  + **User DB:** Stores user credentials.
  + **Product DB:** Stores product details.
  + **Order DB:** Stores order and payment info.

**Level 1 DFD (Decomposition of Process):**

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| External Entity | | Process: 1.1 Login |

| (User) | ---> | Validate Credentials |

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| Process: 1.2 Product | | Data Store: User DB |

| Catalogue | ---> +------------------------+

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| Process: 1.3 Add to | | Data Store: Product |

| Cart | ---> | DB |

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| Process: 1.4 Payment | ---> | Data Store: Order DB |

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**Explanation:**

* **Process 1.1 (User Authentication):**
  + User inputs login credentials.
  + System checks credentials against **User DB**.
  + On success, the system redirects to the product catalog; on failure, shows an error.
* **Process 1.2 (Manage Product Catalogue):**
  + Fetch product list from **Product DB**.
  + Admin can add/update products in the **Product DB**.
  + User browses and selects products.
* **Process 1.3 (Add to Cart):**
  + User adds products to the cart.
  + The cart temporarily holds product data (name, price).
* **Process 1.4 (Payment & Order Processing):**
  + User proceeds to payment.
  + System validates payment and creates an order.