**Project Description:**

The **E-Commerce Store Application System** allows users to browse products, manage a shopping cart, and complete purchases. Users log in, view product listings, add or remove items from the cart, and proceed to payment. The system updates order history and inventory in local storage.

### **Level 0 (Context Diagram)**

At the highest level, we have just one process, which represents the system as a whole.

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| External Entities |

| - User |

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| Retail Application |

| (Process: 1.0) |

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| Local Storage |

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**Explanation**:

* **External Entity (User):** The user interacts with the Retail Application.
* **Process (Retail Application):** Handles user authentication, product selection, cart management, and payment processing.
* **Data Store (Product Database):** Stores product details, user information, and order history.

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

Now, let's break down the application **E-Commerce-Store application system** process (Process 1.0) into more detailed steps.

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| External Entity | | Data Store |

| (User) | | Local Storage |

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|Process: 1.1 - Login | | Process: 1.2 - Browse Products | | User Authentication |

| | Display Product List | |

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| Process: 1.3 - Add to Cart | |

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| Process: 1.4 - Remove from Cart | | User selects products |

| | User removes items from cart | |

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| Process: 1.5 - Payment | | User completes checkout | |

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**Explanation**:

* **Process 1.1 (Login User Authentication**)**:** Users enter credentials to access their account.
* **Process 1.2 (Browse Products):** Users view available products from the database.
* **Process 1.3 (Add to Cart):** Users add selected items to their shopping cart.
* **Process 1.4 (Remove from Cart):** Users remove items from their cart before checkout.
* **Process 1.5 (Payment):** Users proceed with payment to complete the purchase.

### **Data Flow**

* The user logs in to the application.
* The user browses available products from the Store.
* The user adds/removes items from the shopping cart.
* The user proceeds to checkout and completes the payment.
* The system updates order history and inventory.

### **Notes:**

* The Retail Application ensures smooth user authentication and shopping experience.
* The Product store securely stores product details, user information, and order transactions.
* Future enhancements could include order tracking, personalized recommendations, and multiple payment methods.