**Retail\_app**

**Level 0 DFD (Context Diagram):**

+-----------------------+

| External Entities |

| |

| - User |

+-----------------------+

|

v

+------------------------+

| E-Commerce System |

| (Process: 0) |

+------------------------+

|

v

+------------------------+

| Data Store: User DB |

+------------------------+

|

v

+------------------------+

| Data Store: Product DB|

+------------------------+

**Explanation:**

* **External Entity (User):** Represents individuals interacting with the e-commerce system, performing actions such as browsing products, registering, logging in, and making purchases.
* **Process (E-Commerce System):** The central system that manages user authentication, product display, and other functionalities.
* **Data Store (User DB):** Database storing user credentials and profiles.
* **Data Store (Product DB):** Database containing product details like names, prices, and images.

**Level 1 DFD (Decomposition of Retail-app System):**

+-----------------------+ +-----------------------+

| External Entity | | External Entity |

| (User) | | (Admin) |

+-----------------------+ +-----------------------+

| |

v v

+-----------------------+ +-----------------------+

| Process: 1.1 - User | | Process: 1.2 - Admin |

| Authentication | | Authentication |

+-----------------------+ +-----------------------+

| |

v v

+-----------------------+ +-----------------------+

| Data Store: User DB | | Data Store: Admin DB|

+-----------------------+ +-----------------------+

| |

v v

+-----------------------+ +-----------------------+

| Data Store: Product | | Data Store: Product |

| DB | | DB |

+-----------------------+ +-----------------------+

| |

v v

+-----------------------+ +-----------------------+

| Process: 1.4 - Add to | | Process: 1.7 - Process|

| Cart | | Orders |

+-----------------------+ +-----------------------+

| |

v v

+-----------------------+ +-----------------------+

| Data Store: Order | | Data Store: Order |

| DB | | DB |

+-----------------------+ +-----------------------+

|

v

+-----------------------+

| Process: 1.5 - Checkout|

+-----------------------+

|

v

+-----------------------+

| Data Store: Payment |

| DB |

+-----------------------+

**Explanation:**

* **Process 1.1 (User Authentication):** Users input their credentials to access the system.
* **Process 1.2 (Admin Authentication):** Admins authenticate to manage the system.
* **Data Store (User DB):** Stores user information.
* **Data Store (Admin DB):** Stores admin information.
* **Process 1.3 (Browse Products):** Authenticated users browse available products.
* **Process 1.6 (Manage Products):** Admins add, update, or remove products.
* **Data Store (Product DB):** Holds product details.
* **Process 1.4 (Add to Cart):** Users select products to purchase.
* **Process 1.7 (Process Orders):** Admins handle order fulfillment.
* **Data Store (Order DB):** Contains order information.
* **Process 1.5 (Checkout):** Users finalize purchases and provide payment details.
* **Data Store (Payment DB):** Stores payment transactions.