**Data Flow Diagram (DFD) for Retail App**

**Level 0 (Context Diagram)** At the highest level, the system is represented as a whole, showing interactions between users and the system.

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| External Entities |

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| - User |

| - Admin |

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| Retail App System |

| (Process: 1.0) |

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| Data Store: User DB |

| Data Store: Product DB|

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### **Explanation:**

* **External Entities**: Users interact with the Retail App to browse products, register, and place orders. Admins manage inventory.
* **Retail App System**: The system processes user actions, product management, and orders.
* **Data Stores**: The database stores user details and product information.

**Level 1 DFD (Detailed Breakdown)** Now, let’s decompose the **Retail App System** into smaller processes.

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| External Entity | | External Entity |

| (User) | | (Admin) |

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| Process: 1.1 - Sign Up | | Process: 1.4 - Manage Products |

| User Registration | | Admin Adds/Updates Items |

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| Data Store: User DB | | Data Store: Product DB |

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| Process: 1.2 - Login |

| User Authentication |

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| Process: 1.3 - Browse Products |

| View Available Items |

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| Process: 1.5 - Checkout |

| User Places Order |

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| Data Store: Order DB |

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### **Explanation:**

* **Process 1.1 (Sign Up)**: Users register with the system, and details are stored in the User DB.
* **Process 1.2 (Login)**: Users authenticate and gain access.
* **Process 1.3 (Browse Products)**: Users browse products fetched from the Product DB.
* **Process 1.4 (Manage Products)**: Admins add, update, or delete product details.
* **Process 1.5 (Checkout)**: Users place an order, which is stored in the Order DB.

### **Data Flow**

1. Users register → Data stored in **User DB**.
2. Users log in → Credentials validated.
3. Users browse products → Data fetched from **Product DB**.
4. Users place orders → Order details saved in **Order DB**.
5. Admins manage inventory → Modify **Product DB**.