

# Data Flow Diagram (DFD) for ecom-store

## What is a Data Flow Diagram (DFD)?

A DFD is a graphical representation of the flow of data through a system. It helps developers and stakeholders understand:

1. **Where data comes from (external entities).**
2. **How data is processed (processes).**
3. **Where data is stored (data stores).**
4. **Where data is sent (outputs).**

DFDs are typically divided into levels:

- **Level 0 (Context Diagram):** High-level overview of the system and its interactions with external entities.
- **Level 1 (Detailed DFD):** Breaks down the system into sub-processes and shows how data flows between them.

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## DFD for Ecom-Store Application

### Level 0: Context Diagram

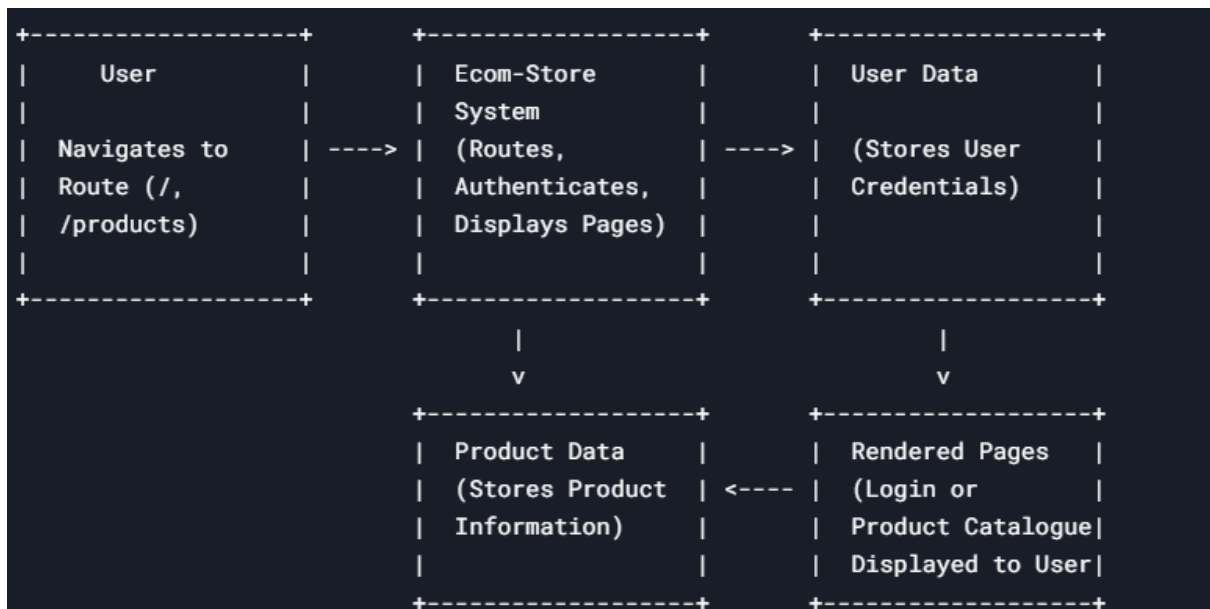
This is the highest-level view of the system, showing the overall flow of data between the system and external entities.

### Components

1. **External Entity: User**
  - The user interacts with the system by navigating to different pages (e.g., Login, Product Catalogue).
2. **Process: Ecom-Store System**
  - The main system that handles routing, user authentication, and product data display.
3. **Data Store: User Data**
  - Stores user credentials and authentication status.
4. **Data Store: Product Data**
  - Stores product information (e.g., name, price, description).
5. **Output: Rendered Pages**
  - The system displays the appropriate page (Login or Product Catalogue) to the user.

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**Diagram:**



## Level 1: Detailed DFD

This breaks down the **Ecom-Store System** into its sub-processes and shows how data flows between them.

### Components

1. **User**: Initiates navigation and interacts with the app.
2. **Routing System**: Determines which page to render based on the route.
3. **LoginPage**: Handles user authentication and interacts with User Data.
4. **ProductCataloguePage**: Fetches and displays product data from Product Data.
5. **User Data**: Stores user credentials and authentication status.
6. **Product Data**: Stores product information.

### Diagram:

