

Data Flow Diagram (DFD) Level 1: Farmo System

The Level 1 DFD decomposes the main system process (Process 0) into its major sub-processes, revealing the internal structure, data stores, and how external data flows connect to the system's core functions.

Processes (Functional Sub-Systems)

ID	Process Name	Description
P1.0	User & Profile Management	Handles all user registration, login authentication, and updates to Farmer and Consumer profiles.
P2.0	Product Listing & Verification	Manages the upload, modification, and verification of products listed by farmers.
P3.0	Order Processing & Fulfillment	Manages product browsing, order placement by consumers, location sharing, and delivery preparation.
P4.0	Financial & Wallet Management	Handles all internal payment processing, fund transfers from Consumers, crediting the Farmer's Farmo Wallet, and processing Farmer withdrawal requests to external banks.
P5.0	Feedback & Rating System	Collects and manages ratings and feedback provided by Consumers for both products and Farmers.
P6.0	System Administration & Reporting	Provides the Admin tools for user/product verification, managing system categories, and generating activity reports.

Data Stores

ID	Data Store Name	Description (Based on Schema)
DS1	User & Auth	Stores Farmer and Consumer credentials, profiles, and verification status.
DS2	Product Inventory	Stores product details (price, quantity, media) and links products to farmers.
DS3	Order Records	Stores order requests, transaction details, and order-product linkages.
DS4	Financial Wallet	Stores the balances and history of the internal Farmo Wallets for Farmers.
DS5	Ratings & Feedback	Stores ratings for Farmers and individual Products.

Data Flows (Internal & External Connections)

Flow Name	Source	Destination	DFD LO Connection
Profile Data	Farmer / Consumer	P1.0	LO: 1 & 6 (Registration & Profile Data)
Product Upload	Farmer	P2.0	LO: 2 (Product Listing Data)
Verification Request	P2.0	Admin	LO: 11 (Verification Commands)
Verification Status	Admin	P2.0	LO: 11 → P2.0 → LO: 5
Product Details	P2.0	DS2	Internal Flow
Product Catalog Query	Consumer	P3.0	LO: 6 (Search Queries)
Product Listings	P3.0	Consumer	LO: 9 (Product Listings)
Order Request	Consumer	P3.0	LO: 6 (Order Details)
Payment Authorization	Consumer	P4.0	LO: 8 (Payment Confirmation)
Order/Transaction Record	P3.0	DS3	Internal Flow
Credit/Debit Instruction	P3.0	P4.0	Internal Flow (to credit Farmer)
Fund Transfer Success	External Payment System	P4.0	LO: 13
Withdrawal Request	Farmer	P4.0	LO: 3
Withdrawal Execution	P4.0	External Payment System	LO: 14
Wallet Balance Update	P4.0	DS4	Internal Flow
Order Notifications	P3.0	Farmer	LO: 4
Rating Submission	Consumer	P5.0	LO: 7 (Rating & Feedback)
Rating Records	P5.0	DS5	Internal Flow
Report Generation	P6.0	DS1, DS2, DS3, DS4, DS5	Internal Flow (Access all data stores)

Conceptual Summary:

The DFD L1 shows how the system is centered around **P3.0 (Order Processing)**, which requires information from **P2.0 (Product Listing)**, updates **DS3 (Order Records)**, and triggers **P4.0 (Financial Management)**. The **P4.0** process is critical, linking the system to the **External Payment System** for both incoming consumer payments and outgoing farmer withdrawals, while managing **DS4 (Wallet)**. **P6.0 (Reporting)** accesses all data stores to provide the **Admin** with necessary oversight.

Let me know if you would like to elaborate on any specific process, for instance, by creating a DFD Level 2 for **P3.0 Order Processing & Fulfillment!**