Context DFD — "Campus Merch Marketplace (CMM)"

Process

- **P0: Campus Merch Marketplace (CMM)**

External Entities

- **E1 Student (Buyer)** — campus students placing and receiving orders.
- **E2 USC (Main Seller + Admin)** — central seller, manages product listings, receives payments, and distributes goods to campuses.
- **E3 Campus Directors** — responsible for onsite distribution to students per campus.

Data Flows

E1 Student (Buyer)

- **To CMM →** Account registration/login, Browse/Search Queries, Order Details, Payment Choice (GCash, cash, bank transfer), Feedback/Review (with privacy option).
- **From CMM ←** Listings/Results, Order Confirmations, Payment Instructions, Distribution Notice, Review Display.
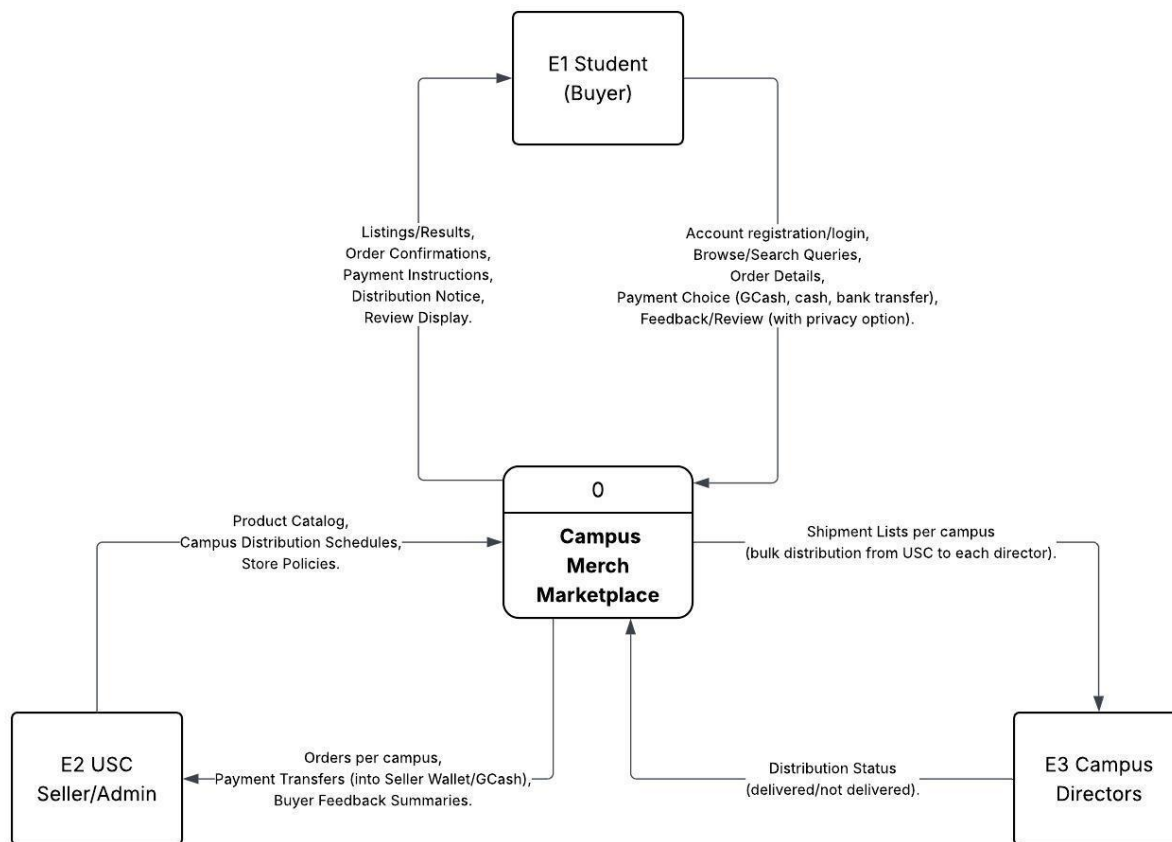
E2 USC (Seller + Admin)

- **To CMM →** Product Catalog, Campus Distribution Schedules, Store Policies.
- **From CMM ←** Orders per campus, Payment Transfers (into Seller Wallet/GCash), Buyer Feedback Summaries.

E3 Campus Directors

- **To CMM →** Distribution Status (delivered/not delivered).
- **From CMM ←** Shipment Lists per campus (bulk distribution from USC to each director).

Context Diagram

Key Changes from the First Draft

1. **One Seller/Admin (USC):** All goods originate from USC. They manage listings and payments, then bulk-distribute goods to each campus.
2. **Onsite Distribution:** No external couriers — instead, **Campus Directors** handle delivery to students.
3. **Simplified Payments:** GCash or cash (optionally bank transfer), but all funds route to **USC Seller Wallet**.

Level-0 DFD — Campus Merch Marketplace (CMM)

External Entities

- **E1 Student (Buyer)**
- **E2 USC (Seller + Admin)**
- **E3 Campus Directors**

Internal Processes (inside CMM)

1. **P1: Catalog & Listings Management**
   - Maintains product catalog and store policies provided by USC.
   - Provides searchable listings to students.
2. **P2: Order Management**
   - Accepts orders from students.
   - Groups orders by campus for distribution.
   - Sends order summaries to USC and Campus Directors.
3. **P3: Payment Handling**
   - Manages student payments (GCash, cash, optional bank transfer).
   - Routes funds to USC Seller Wallet.
   - Records payment status.
4. **P4: Distribution Coordination**
   - Prepares bulk shipment list per campus.
   - Sends distribution lists to Campus Directors.
   - Collects distribution confirmations.
5. **P5: Feedback & Review System**
   - Collects student feedback (rating, comment, privacy flag).
   - Shows privacy-aware reviews to other students.
   - Summarizes feedback for USC.

Data Stores (inside system)

- **D1 Product Catalog** (listings, policies)
- **D2 Order Records** (all orders, grouped by campus)
- **D3 Payment Records** (transaction details, status)
- **D4 Distribution Logs** (shipment per campus, confirmations)
- **D5 Review Repository** (student feedback with privacy settings)

Data Flows (high-level)

E1 Student (Buyer)

- To P1: Search Queries
- From P1: Listings
- To P2: Order Details
- To P3: Payment Info (GCash, cash, transfer)
- From P2/P3: Order Confirmation & Payment Status
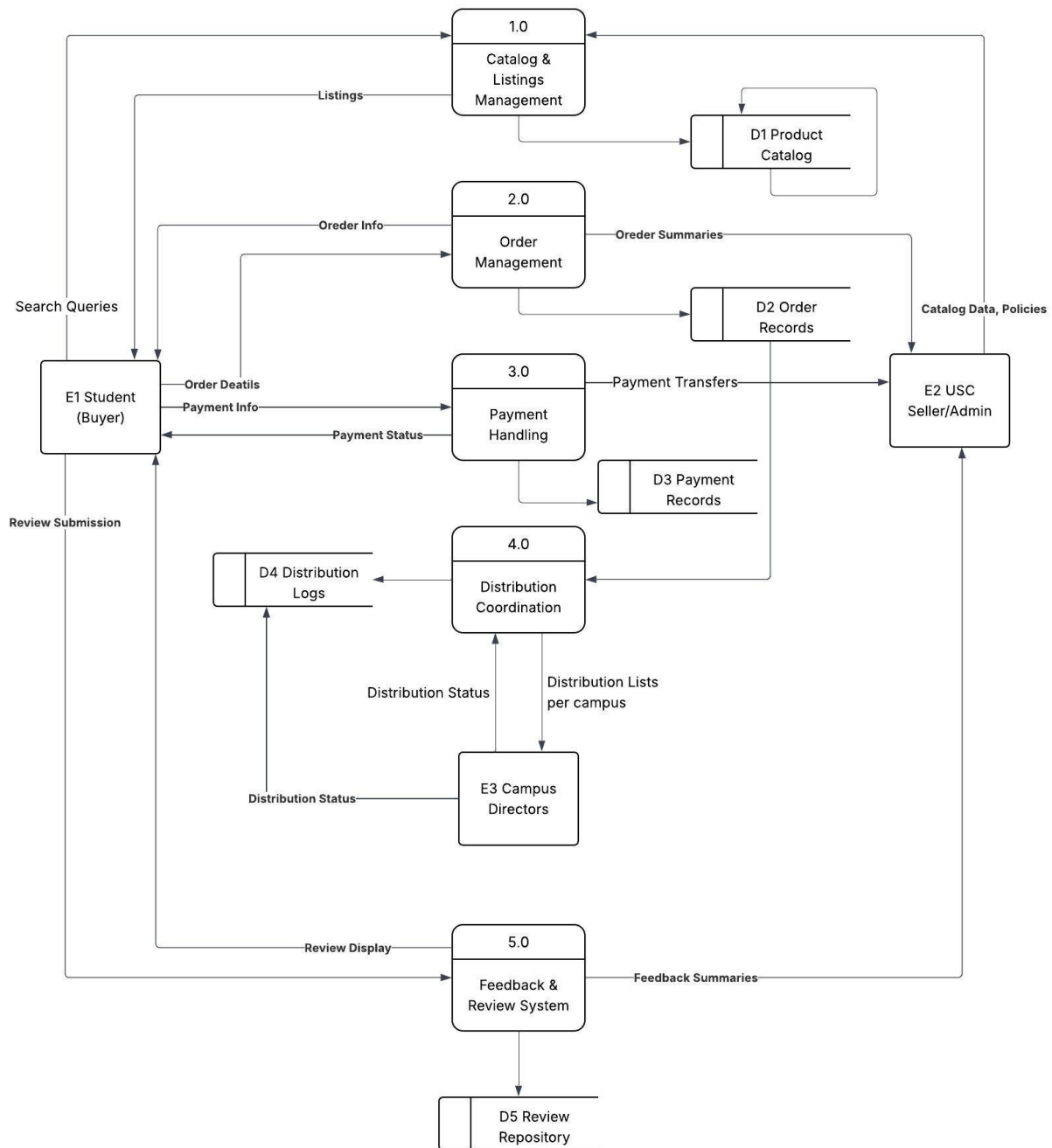- To P5: Review Submission (with privacy flag)
- From P5: Review Display

E2 USC (Seller + Admin)

- To P1: Catalog Data, Policies
- From P2: Order Summaries (by campus)
- From P3: Payment Transfers
- From P5: Feedback Summaries

E3 Campus Directors

- From P4: Distribution Lists per campus
- To P4: Distribution Status

Data Flow Diagram

1.0 Catalog & Listings Management

D1 Product Catalog

2.0 Order Management

D2 Order Records

3.0 Payment Handling

D3 Payment Records

4.0 Distribution Coordination

D4 Distribution Logs

5.0 Feedback & Review System

D5 Review Repository

E1 Student (Buyer)

E2 USC Seller/Admin

E3 Campus Directors

Listings

Search Queries

Oreder Info

Oreder Summaries

Catalog Data, Policies

Order Deatils

Payment Info

Payment Status

Payment Transfers

Review Submission

Distribution Status

Distribution Lists per campus

Distribution Status

Review Display

Feedback Summaries

Level-1 DFD — Campus Merch Marketplace (CMM)

External Entities

- **E1 Student (Buyer)**
- **E2 USC (Seller + Admin)**
- **E3 Campus Directors**

Internal Data Flow Process

1. **P1: Catalog & Listings Management**
2. **P2: Order Management**
3. **P3: Payment Handling**
4. **P4: Distribution Coordination**
5. **P5: Feedback & Review System**

Data flow Sub Processes

1. **P1: Catalog & Listings Management**
   Sub-Process:

2. **P2: Order Management**
   Sub Process:

3. **P3: Payment Handling**
   Sub Process:

4. **P4: Distribution Coordination**
   Sub Process:

5. **P5: Feedback & Review System**
   Sub Process:

DATA FLOW DIAGRAM (LEVEL 1)