Lecture Topic Task: #312 Strategic Design Document

Assignee: Daniella Melero Pereira

1. Domain Overview

Hand-Me-Down is a campus-focused clothing marketplace where users list, browse, favorite, and purchase second-hand clothing items. The platform emphasizes community, sustainability, and an accessible, cozy user experience.

2. Subdomain Classification

It divides a large domain into meaningful subdomains based on the business importance and technical complexity

Core Subdomain

• Listing & Discovery

- Upload clothing items with pictures, sizes, category and condition
- Search & filter by type, size, conditions, gender

• Trust & Community Experience

- UI friendly, listing cards, "borrow from a friend or family" type of feeling
- Communicating sustainability and re-use value
- UX decisions focused on making users feel safe and connected

Supporting Subdomains

• Favorites & Saved Items

- User can save items they like
- Help with users' retention and decision making

• User Profiles

- Name, profile picture, basic preferences
- Help personalize discovery

• Messaging / Contact Seller

- Not a full chat but a simple "contact the seller" chat
- Help make the purchase possible but is not the differentiator

Generic Subdomains

• Authentication

- Sign-up, login, passwords, isLoggedIn
- Could be outsourced

• Payments

- Stripe or any form of payment in card
- Commodity functionality

• Database Layer

- Supabase/ SQL table definition

• Logging / Monitoring

- not visible to users(internal)

Why generic?

These are universal across systems and add no special domain insight

3. Bounded Contexts

A. Listings Context (Core)

- Purpose Manage item lifecycle

-Model: Listing, Photo, Category, Condition

- Capability:

- Create listing
- Update listing
- Search index model

B. Discovery Context (Core)

- Purpose: Help users find what they are looking for

- Model: SearchQuery, Filter, Recommendation

- Capabilities:

- Query listings
- Recommendations

C. User Profile Context (Supporting)

-Purpose: Manage user identity (not auth)

- Model: UserProfile, Preferences

- Capabilities:

- Updated profile
- Preferred sizes

D. Favorites Context (Supporting)

-Purpose: Lightweight bookmarking

- Model: FavoriteList, FavoriteItem

- Capabilities:
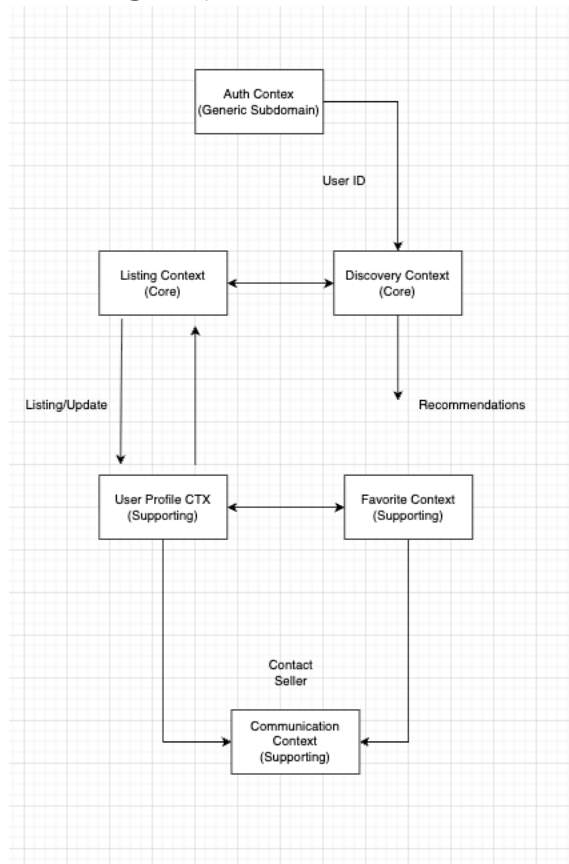
  - Add/remove favorite
  - Show saved items

E. Communication Context (Supporting)

-Purpose: Connect buyer and seller

- Model: Message, Conversation

- Capabilities:

  -Iniciate contact

  -Notify seller

F. Authentication Context (Generic)

-Purpose: Identity and session managment

- Model: UserAccount, Session

- Capabilities:

  - Login
  - Sign-Up
  - Password reset

4. Context Map (ASCII Diagram)

```
                          ┌──────────────────┐
                          │   Auth Contex    │
                          │(Generic Subdomain)│
                          └──────────────────┘
                                            │
                                       User ID
                                            │
                                            ▼
     ┌──────────────────┐        ┌──────────────────┐
     │ Listing Context  │◄──────►│ Discovery Context │
     │     (Core)       │        │     (Core)        │
     └──────────────────┘        └──────────────────┘
            │    ▲                           │
     Listing/Update              Recommendations
            │    │                           │
            ▼    │                           ▼
     ┌──────────────────┐        ┌──────────────────┐
     │ User Profile CTX │◄──────►│ Favorite Context  │
     │  (Supporting)    │        │  (Supporting)     │
     └──────────────────┘        └──────────────────┘
            │                              │
                         Contact
                         Seller
            │                              │
            ▼          ┌──────────────────┐▼
            └─────────►│  Communication   │
                       │    Context       │
                       │  (Supporting)    │
                       └──────────────────┘
```

5. Why this strategic work?

   A. Modularity

      - Each context has separate responsibilities
      - Prevents one giant database table

   B. Independence

      - You can develop and test Listing without touching Favorites
      - Discovery can evolve independently

6. Evaluation / Testing

   • Modularity

      - Each context has isolated responsibilities.

   • Independence

      - Modifying one context does not break others.

   • Ubiquitous Language

- Terms maintain consistency within boundaries.