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CS 4090

Assignment 1: User Stories

Project Group 39: DrinkWise

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## **PART 1: User Research & Personas**

### **Persona 1: Ava Patel (Casual Enjoyer)**

- Age: 21
- Background: College student balancing school, work, and social activities living in an urban area.
- Goals & Motivations
  - Explore new coffee and smoothie flavors without spending too much time deciding.
  - Find budget-friendly drinks she'll actually enjoy based on taste, not just popularity.
  - Create a personal "favorites" list for easy ordering next time.
- Pain Points & Frustrations
  - Gets overwhelmed by endless café menus and indecisive about trying new drinks
  - Dislikes overly sweet options and inconsistent quality between cafés.
  - Feels guilty for wasting money on drinks she ends up not liking.
- Technology Comfort Level: High, uses mobile apps daily.
- Context of Use
  - Uses DrinkWise during quick breaks or before meeting friends.
  - Prefers mobile access with simple UI and immediate suggestions.
  - Often checks recommendations near campus cafés.

### **Persona 2: Leo Hu (Fitness Oriented)**

- Age: 28
- Background: Data analyst with a busy lifestyle; fitness-focused; tracks daily caffeine and calorie intake.
- Goals & Motivations
  - Find drinks that fit specific dietary goals (low caffeine, low sugar, or protein-based).
  - Save time by trusting personalized, health-safe suggestions instead of browsing long menus.
  - Maintain energy throughout the workday without overdoing caffeine.
- Pain Points & Frustrations
  - Hidden nutritional information makes choosing difficult.
  - Feels skeptical of algorithmic recommendations that aren't transparent.
  - Struggles to find good low-sugar alternatives in regular cafés.
- Technology Comfort Level: High, uses smart devices and fitness trackers.

- Context of Use
  - Morning routine before work; sometimes during lunch breaks.
  - Prefers desktop or mobile dashboard; expects data accuracy and privacy protection.
  - Uses DrinkWise for daily caffeine tracking and lifestyle management.

### Persona 3: Maya Brooks (Admin)

- Age: 34
- Background: Works for DrinkWise operations team, maintaining the drink database and verifying nutrition data.
- Goals & Motivations
  - Ensure all drink listings are accurate, consistent, and ethically displayed.
  - Maintain user trust by preventing misleading data or incomplete ingredient info.
  - Uphold compliance with safety standards and age restrictions.
- Pain Points & Frustrations
  - Constant data cleanup due to duplicate or unverified entries.
  - Balancing speed of updates with data accuracy.
  - Managing accessibility and compliance for diverse user needs.
- Technology Comfort Level: High, experience with backend development.
- Context of Use
  - Uses DrinkWise's admin dashboard during work hours to upload new data, fix flags, or run reports.
  - Collaborates with QA testers and nutrition experts.

## PART 2: User Stories

### Ava Patel

#### *Story #A1: Quick Taste Quiz Onboarding*

As a new user (Ava), I want a 60-second taste quiz, so that I get relevant recs immediately.

Acceptance Criteria:

- Given I'm new, when I start onboarding, then I can answer 6–10 taste questions.
- Given I finish, when I view “Recommendations,” then results reflect my answers.

Story Points: 3 | Priority: High

#### *Story #A2: Save Favorites*

As Ava, I want to “heart” drinks, so that I can find them later.

Acceptance Criteria:

- Given a drink card, when I tap heart, then it appears in “Favorites.”
- Given network loss, when I heart, then it queues and syncs later.

Story Points: 2 | Priority: High

#### *Story #A3: Gentle Similar Alternatives*

As Ava, I want “similar to this” suggestions, so that I discover close-by flavors.

Story Points: 3 | Priority: High

#### *Story #A4: Budget Filter*

As Ava, I want a budget filter (\$, \$\$, \$\$\$), so that I don't waste time on pricey options.

Acceptance Criteria:

- Given filters, when I set price to \$, then results exclude higher tiers.

Story Points: 2 | Priority: Medium

#### *Story #A5: Sweetness Slider*

As Ava, I want a sweetness level filter, so that I avoid overly sweet drinks.

Story Points: 2 | Priority: High

#### *Story #A6: Recently Viewed*

As Ava, I want a “recently viewed” list, so that I can compare candidates easily.

Story Points: 1 | Priority: Medium

#### *Story #A7: Shareable Link*

As Ava, I want to share a drink link with friends, so that we can try it together.

Story Points: 1 | Priority: Low

*Story #A8: “Not For Me” Dismiss*

As Ava, I want to mark “not for me,” so that I shape future recs.

Acceptance Criteria:

- Given a card, when I choose “Not for me,” then future recs reduce similar items.

Story Points: 2 | Priority: Medium

## **Leo Hu**

*Story #L1: Caffeine Range Filter*

As Leo, I want to set caffeine mg range, so that I stay within my daily target.

Acceptance Criteria:

- Given filters, when I set 0–80 mg, then all results honor that range.

Story Points: 2 | Priority: High

*Story #L2: Nutrition Snapshot*

As Leo, I want a concise nutrition panel (sugar/cals/caffeine), so that I can decide fast.

Story Points: 2 | Priority: High

*Story #L3: Explain-My-Recs*

As Leo, I want a short “Why recommended?” note, so that I trust the model.

Acceptance Criteria:

- Given a recommendation, when I tap “Why?”, then I see top 2–3 features used.

Story Points: 3 | Priority: High

*Story #L4: Allergy/Ingredient Exclusions*

As Leo, I want to exclude specific ingredients, so that I avoid triggers.

Story Points: 3 | Priority: High

*Story #L5: Decaf/Energy Modes*

As Leo, I want quick toggles (Decaf / Low-Caf / Energy), so that I can switch contexts.

Story Points: 2 | Priority: Medium

*Story #L6: Time-of-Day Sensitivity*

As Leo, I want evening recs to avoid high caffeine, so that I sleep better.

Story Points: 3 | Priority: Medium

*Story #L7: Preference Profile Editing*

As Leo, I want to adjust taste/health preferences anytime, so that recs adapt.

Acceptance Criteria:

- Given settings, when I update sliders/toggles, then future recs reflect changes.

Story Points: 2 | Priority: High

*Story #L8: Export My Data*

As Leo, I want to export my ratings and preferences, so that I own my data.

Story Points: 3 | Priority: Low

**Maya Brooks**

*Story #M1: Add/Edit Drink Catalog Entries*

As Maya, I want to create/edit drinks with ingredients, caffeine/alcohol flags, so that data stays accurate.

Acceptance Criteria:

- Given a new drink, when I save with required fields, then it's visible to users.

Story Points: 3 | Priority: High

*Story #M2: Duplicate Detection*

As Maya, I want automated duplicate suggestions, so that I merge records quickly.

Story Points: 3 | Priority: Medium .

*Story #M3: Mandatory Safety Flags*

As Maya, I want validation that caffeine/alcohol flags cannot be empty, so that users are safe.

Story Points: 2 | Priority: High

*Story #M4: Age Gate for Alcohol*

As Maya, I want alcohol content to be shown only to age-verified users, so that we comply legally.

Acceptance Criteria:

- Given a non-verified user, when searching, then alcohol drinks are hidden or blurred.

Story Points: 3 | Priority: High

*Story #M5: Tag Consistency Report*

As Maya, I want a weekly report of missing tags, so that I can fix gaps.

Story Points: 2 | Priority: Medium

*Story #M6: Accessibility Checker*

As Maya, I want a basic checker for alt text/contrast on catalog images, so that the app is inclusive.

Story Points: 3 | Priority: Medium



## **PART 3: EPICs Organization**

### *EPIC 1: Onboarding & Preferences*

Story: As a new or returning user, I want to quickly set and adjust my taste/health profile so that recommendations match me from day one and keep improving.

User Stories:

- A1: Taste Quiz
- L5: Mode Toggles
- L6: Time-of-Day Sensitivity
- L7: Preference Editing

Justification: These stories all capture or update the inputs that drive personalization and user intent. These stories make sure the system always has fresh signals and context for user goals.

### *EPIC 2: Browse, Search & Filters*

Story: As a user, I want powerful but simple browsing and filtering so that I can narrow choices to drinks that actually fit my constraints.

User Stories:

- A4: Buffet Filter
- A5: Sweetness Slider
- L1: Caffeine Range
- L2: Ingredient Exclusions
- L4: Nutrition Snapshot

Justification: Each story is a different axis of narrowing (price, taste, caffeine, allergens), which contributes to the goal of narrowing choices to browse from.

### *EPIC 3: Recommendations & Explainability*

Story: As a user, I want personalized, explainable recommendations so that I can trust the system and easily refine what I'm shown.

User Stories:

- A3: Similar Alternatives
- A8: "Not for Me" Feedback
- L3: Explain-My-Recs

Justification: These stories produce personalized suggestions users can trust and tune. Similar alternatives and "Not for Me" are examples of user control over their recommendations, and Explain-My-Recs makes them transparent.

#### *EPIC 4: Feedback, Lists & History*

Story: As a user, I want to save, revisit, and share my choices so that the app remembers me and keeps improving over time.

User Stories:

- A2: Favorites
- A6: Recently Viewed
- L7: Shareable Link

Justification: These stories utilize memory and long-term engagement mechanics with favorites, sharing, and recently viewed creating a long term user history.

#### *EPIC 5: Catalog Quality & Compliance (Admin)*

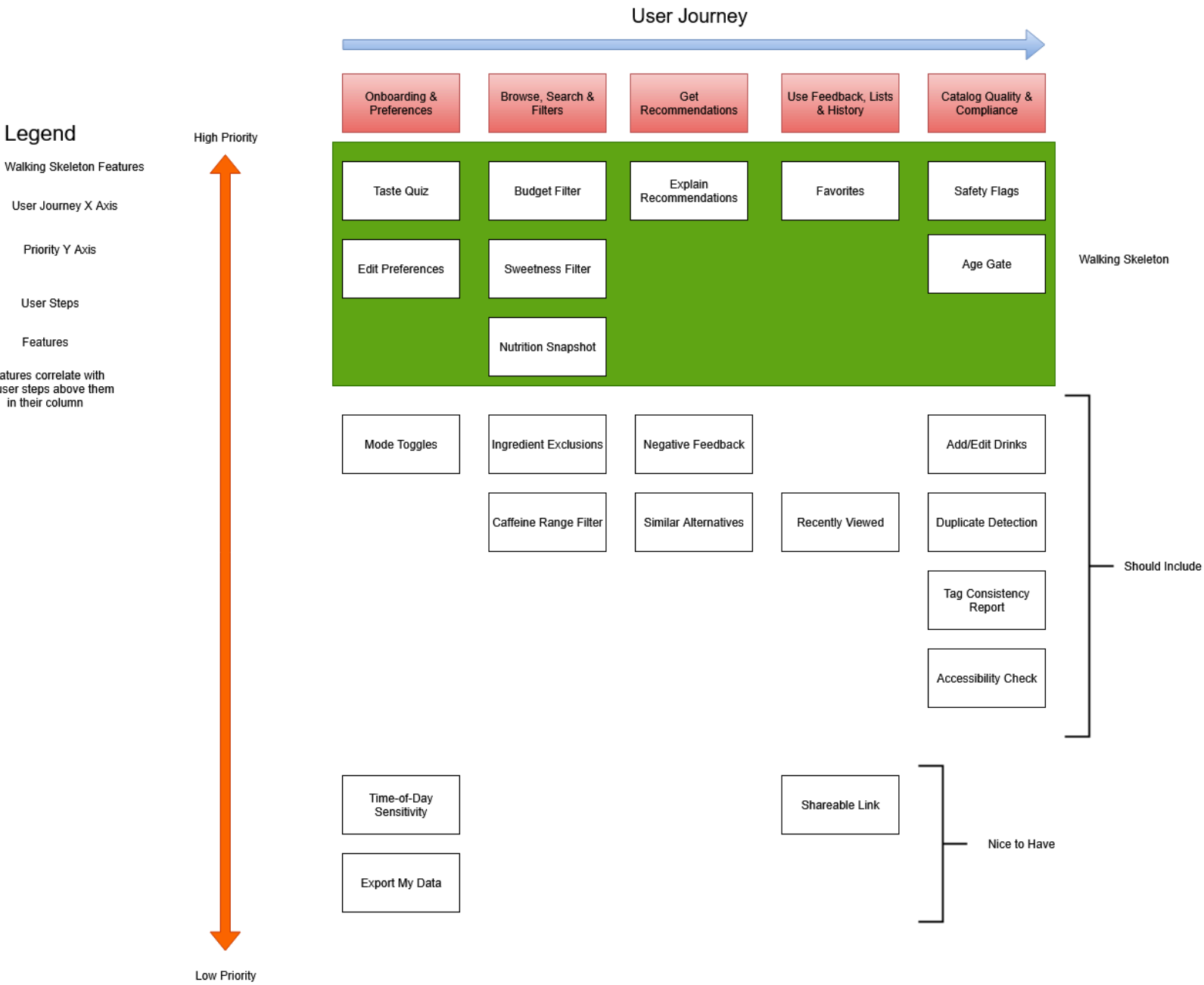
Story: As an admin, I want accurate, complete, and compliant drink data so that users get safe, honest, and usable results everywhere else.

User Stories:

- M1 Add/Edit Drinks
- M2 Duplicate Detection
- M3 Safety Flags
- M4 Age Gate
- M5 Tag Consistency
- M6 Accessibility Checker

Justification: Together these stories ensure the catalog is accurate, consistent, accessible, and lawful. They are relevant to admins in order to operate the website ethically.

PART 4: User Story Mapping



## **PART 5: MVP Definition & Planning**

### **MVP Core Value:**

Provide users with **personalized drink recommendations** based on their taste preferences and past interactions, allowing them to easily discover new beverages they'll enjoy.

### **Story #1: User Registration & Authentication**

*Justification:* Enables personalized experience, store user preferences and ratings. This is foundational for all other features.

### **Story #2: Browse and View Drink Details**

*Justification:* Users need access to drink data (name, ingredients, type, flavor profile) to explore and rate drinks.

### **Story #3: Rate or Like Drinks**

*Justification:* Collects user feedback necessary to power both content-based and collaborative filtering models.

### **Story #4: Generate Personalized Recommendations**

*Justification:* Core functionality—delivers value by using hybrid recommendation algorithms to suggest drinks users are likely to enjoy.

### **Story #5: User Dashboard with Recommended Drinks and Favorites**

*Justification:* Central interface for users to view their recommendations and track liked or rated drinks.

### **MVP Success Criteria:**

- Users can login and interact with dashboards, drinks, and recommendations.
- The system can generate personalized drink recommendations based on user and drink data.
- Ratings, likes, and other drink criteria influence recommendations in each app session.
- The recommendations are relevant to user and can intuitive navigate through the application.

### **Future Release Planning:**

- **Release 2**
  - Add drink search and filtering (by caffeine/alcohol content, flavor, ingredients).

- Improve recommendation algorithm with more advanced collaborative filtering (e.g., matrix factorization).
- Add drink popularity metrics and trending recommendations.
- **Release 3**
  - Include a profile section for editing user preferences.
  - Implement multi-factor personalization using contextual data (time of day, mood).
  - Add social features: follow friends, share favorite drinks.
  - Integrate generative AI for new recipe suggestions.

**Development Approach:**

**EPICS in order of importance to complete:**

- EPIC 1: User Management (Authentication, Profiles)
- EPIC 2: Drink Database & Browsing
- EPIC 3: Rating System & Recommendation Engine
- EPIC 4: User Dashboard & UI Enhancements

**Contributions:**

I wrote EPICS 4 and 5 and created the MVP Definition & Planning portion of the project. I worked with my teammates to come up with pain points and stories for each user type and added 10 of the priorities of importance on the user stories. I felt I contributed about 33% of the assignment, and felt that my other teammates also contributed about 33% of the assignment.