App Flow Document

Drinks Sustainability Tool

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1. Introduction

This document outlines the primary user flows for the 'Drinks Sustainability Tool' MVP. The goal is to map out the step-by-step journey a user takes to achieve their primary objectives within the platform.

2. Primary User Flow: New Client Onboarding & First LCA Generation

This flow describes the end-to-end journey for a new client (our persona, "Alex" or "Sam") from initial sign-up to generating their first valid Life Cycle Assessment (LCA) report.

Persona: Alex the Brand Builder / Sam the Strategic Founder

Goal: To successfully set up their company profile, input all necessary operational and product data, and generate a credible environmental footprint report for their first product.

Phase 1: Registration & Welcome

- **Step 1: User Lands on Website & Clicks "Sign Up"**
  - User navigates to the platform's marketing homepage.
  - User clicks a primary call-to-action button (e.g., "Start for Free," "Get Started").
- **Step 2: Authentication via Replit Auth**
  - The user is presented with the Replit Auth login modal.
  - The user signs up or logs in using their chosen method (e.g., Google, Email).
  - **System Action:** Upon successful authentication, a new user account is created in the database.
- **Step 3: First Login & Welcome Screen**
  - The user is redirected to the main dashboard for the first time.
  - The dashboard is in a "welcome state," showing an aspirational view with placeholder data.
  - A prominent modal or section titled "Your Onboarding Mission" appears, prompting the user to begin the guided setup.

    - **User Action:** User clicks "Begin Onboarding."

Phase 2: Guided Data Collection

This phase follows the "gamified," level-based structure defined in the planning documents.

- **Step 4: Level 1 - Company Profile & Reporting Period**
    - The user is guided to complete their company profile (name, number of employees, etc.).
    - The user defines their first reporting period (start and end dates).
    - The user selects their primary product type (e.g., Spirit, Beer, RTD), which triggers branching logic for later steps.
    - **System Action:** Data is saved to the database. The user sees a progress bar update and receives a "Badge Unlocked" notification.
- **Step 5: Level 2 - Operational Footprint (Scope 1 & 2)**
    - The user is prompted to upload utility bills (electricity, gas).
    - **System Action:** OCR automatically extracts consumption data. The user reviews and confirms the extracted values.
    - The user is prompted to manually input other fuel consumption and waste data.
    - **System Action:** Data is saved. Progress bar updates.
- **Step 6: Level 3 - Product Footprint (Scope 3)**
    - The user is asked if they own their production facility or use a contract manufacturer.
    - **Path A: Own Production Facility**
        - The user is guided through a detailed form to input per-unit data for a specific SKU (raw materials, packaging, manufacturing energy, transport, etc.).
        - The user can repeat this step for multiple SKUs.
    - **Path B: Contract Manufacturer**
        - The user is prompted to enter the contact details for their contract manufacturer.
        - **System Action:** The platform sends a pre-drafted email invitation to the supplier, containing a unique link to the "Supplier Portal."
        - The client's dashboard shows a "Pending Data" status for that supplier.
        - *(See Supplier Flow below for the supplier's journey)*.
        - **System Action:** Once the supplier completes their data submission, the status on the client's dashboard updates to "Complete," and the client is notified.

Phase 3: Report Generation & Validation

- **Step 7: Review & Confirm Data**
  - Once all necessary data is collected (either directly or from suppliers), the user is prompted to review a summary of all inputs.
  - The user can edit any incorrect data directly from the summary view.
  - **User Action:** User clicks "Confirm & Generate Report."
- **Step 8: Asynchronous Report Generation**
  - The user sees an immediate confirmation message: "Thank you! We've started building your report. This process can take a few minutes. We will notify you by email and on your dashboard as soon as it's ready."
  - **System Action:** A background job is initiated. The Flask backend sends the collected data to the OpenLCA engine for calculation.
- **Step 9: Report Ready & Initial View**
  - **System Action:** Once the calculation is complete, the report is generated and saved. The user receives an email and an in-app notification.
  - The user navigates to their dashboard, where the placeholder data is now replaced with their actual calculated footprint data.
- **Step 10: Request Expert Validation**
  - On the report page, a clear call-to-action button is visible: "Request Expert Review."
  - **User Action:** User clicks the button.
  - **System Action:** The report's status changes to "Pending Review." A notification is sent to the internal Avallen Solutions team's review queue.
- **Step 11: Human-in-the-Loop Review**
  - **Internal Action:** An expert from the Avallen team reviews the report, checks for data anomalies, and validates the inputs and outputs.
  - The expert can either approve the report or add comments and flag it for user correction.
  - **System Action:** The report status is updated to "Approved" or "Needs Revision." The user is notified of the status change.
- **Step 12: Final Report**
  - Once "Approved," the user can now download the final, validated "Dry and Data-Driven" PDF report. The "Request Expert Review" button is replaced with a "Download Report" button.

3. Secondary User Flow: Supplier Data Submission

This flow describes the journey for a contract manufacturer who has been invited to provide data.

Persona: Supplier/Production Manager

Goal: To easily and securely provide production data for a specific client product.

- **Step 1:** Supplier receives an email invitation from their client.
- **Step 2:** Clicks the unique link and lands on the simplified, branded "Supplier Portal."
- **Step 3:** Follows a streamlined, guided journey to input their facility's operational data (utility bills via OCR, waste, etc.) and the specific inputs for the client's product.
- **Step 4:** Reviews and submits the data.
- **Step 5:** Receives a confirmation message. The portal may offer them the option to create their own full account.
- **System Action:** The submitted data is linked to the inviting client's account, and the client is notified.