



Page Flow and Functionality

Web-Based ESG Dashboard for Small and Medium Enterprises

Case Scenario

By: Group 12

CS321:
Web Technologies
Kwadwo Osafo- Maafo

November 21st, 2025

Flow Diagram Components

1. Start / Entry

- Node: Login/Register
- Purpose: Entry point for all users.

Actions

- * Login → Authenticate user against Cusers table.
- * Register → Create organization (organization) and user (Cusers) in DB.

2. Dashboard

- Node: Dashboard (dashboard.php)
- Purpose: Main landing page after login.

Actions

- * Fetch user info (Cusers) and organization info (organization).
- * Aggregate ESG data for summary (esg_data , esg_kpis , esg_pillars).
- * Display KPI counts and ESG scores.

3. Data Input

- Node: Data Input (data_input.php)
- Purpose: Enter ESG pillar data (Environmental, Social, Governance).

Actions

- * Users select a category (pillar).
- * Input KPI values → saved to esg_data (or kpi_entries).
- * Validate and sanitize inputs.
- * Optional: check for duplicates using ON DUPLICATE KEY UPDATE .

4. Reports

- Node: Reports (reports.php)
- Purpose: Generate ESG reports.

Actions

- * User selects date range.
- * System calculates ESG scores: average KPI values across pillars.
- * Save report to Creports .
- * Display historical reports table.
- * Optional: badge for “Good / Average / Poor” based on score.

5. Logout

- Node: Logout (logout.php)
- Purpose: End user session.

Actions:

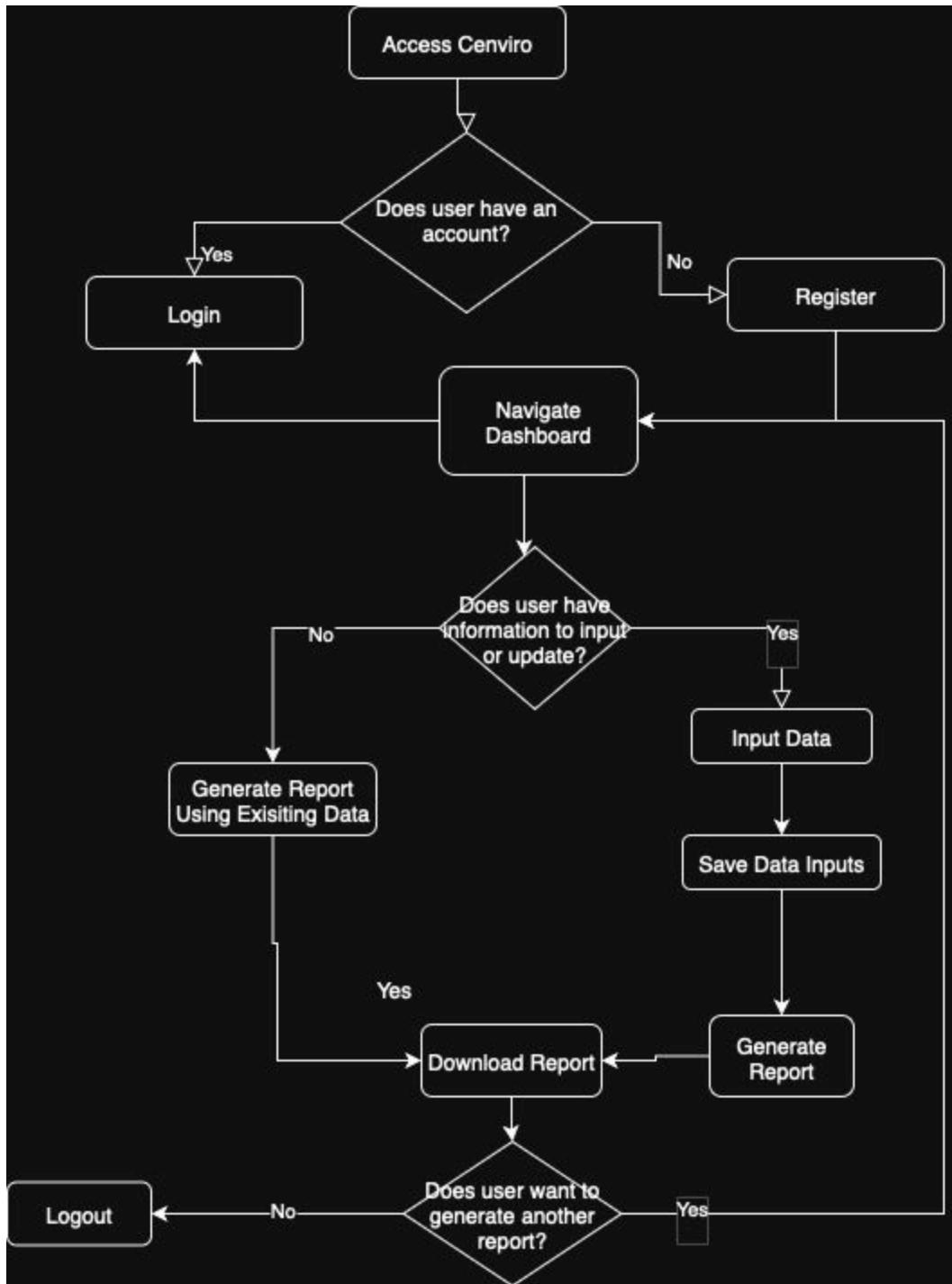
- * Destroy session (logoutUser()).
- * Redirect to login page.

Optional / Future Enhancements Nodes

- *Download Reports* → PDF / Excel export.
- *Charts & Visualizations* → Frontend graphs of ESG trends.
- *Admin / Organization Settings* → Manage KPIs, set targets (kpi_targets table).

Connections / Flow

1. Login/Register → Dashboard
2. Dashboard → Data Input → Save data → Back to Dashboard
3. Dashboard → Reports → Generate report → Back to Dashboard
4. Any page → Logout → Login



Common Sprint

Description of Functionality

This sprint was partially a reiteration of Sprint 2 where we were required to create data stores for the user's data in the website. Additionally we implemented new functionalities to finalize the flow of pages of the website. In any website it is essential to define how pages flow from one to the next and how functions operate from one to the next. It is especially important within the context of or project where user inputs inform every next step of the website. Companies need to provide their KPIs and ESG data. The website then stores their data and calculates their ESG score based on industry ESG standards. This data is stored and also displayed for

Retrospective page

There were many ups and downs that we faced as a team. After carefully reviewing the currently implemented functionalities we realized there were still missing functionalities that were essential to the purpose of the website. We had to backtrack and discuss how these functionalities will be implemented in the current system. Additionally, we reviewed the data storage requirements for the project and identified some errors in our initial storage location. Previously, we created our tables in localhost as opposed to the required school database. We had to recreate these tables on the school server and re-connect it our code using php.

While we did face a few challenges, these challenges gave us a clearer vision of the end goal of the project. These challenges also taught us to delegate better as a team.