# Community Recycling Platform

**1st December 2024**

## Objectives

- Design a platform to organize and manage recycling efforts and events.
- Develop functionalities to track community recycling progress using SQL queries.
- Provide educational resources to promote recycling awareness.
- Implement event management to schedule and track participation.

## Features Goals and Implementation

### 2.1. User Participation in Recycling Events

- **Goal**: Allow users to register for recycling events.
- **Steps**:
    - Create user authentication and profile management.
    - Develop an event registration system.
    - Use SQL to store and retrieve participant data.

### 2.2. Recycling Progress Tracking

- **Goal**: Display community recycling efforts in real-time.
- **Steps**:
    - Track individual and collective recycling data.
    - Create SQL queries for data aggregation (e.g., total items recycled, top contributors).
    - Develop a dashboard to visualize progress using JavaScript and charts.

### 2.3. Educational Resources

- **Goal**: Provide recycling tips and guides.
- **Steps**:
    - Create a content management system for uploading articles, videos, and infographics.
    - Organize resources into categories and make them searchable.
    - Use SQL to manage and retrieve educational content efficiently.

### 2.4. Event Management

- **Goal**: Schedule and manage recycling events.
- **Steps**:
    - Build a calendar system to list upcoming events.
    - Enable admins to create, update, and delete events.
    - Use SQL for filtering events by date, location, or participation status.

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## 3. Learning Objectives

- Master SQL queries for filtering, aggregating, and managing event data.
- Apply PhP ,Laravel to build a robust backend for data handling.
- Integrate servlets for additional server-side functionality.
- Use HTML,CSS,Bootstrap, JavaScript for dynamic and interactive user interfaces.

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## 4. Technologies

- **Frontend**: HTML, CSS, JavaScript
- **Backend**: PhP, Laravel
- **Database**: SQL (MySQL/PostgreSQL)

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## 5. Database Design

**5.1. Tables**

1. **Users**:
   - id, name, email, password, avatar, role, status
2. **Category**:
   - id, title, description, date, location
3. **RecyclingEvent**:
   - Id, category_id, description, status
4. **RecyclingParticipents**:
   - id, user_id, event_id, notes, count, created_at
5. **RecyclinigParticipentItems**
   - id, user_id, participent_id,
6. **Educational Resources**:
   - id, title, content, type, uploaded_by, created_at