**Sprint 1 Summary - Sustainability Gamification App**

**Overview**

Sprint 1 focused on building the foundation of the **Sustainability Gamification App**, implementing essential features, and addressing initial technical challenges. The primary goal was to establish user authentication, gamification mechanics, and the groundwork for future expansions.

**1. Work Completed**

**1.1 System Architecture & Database Design**

* Established a **Model-View-Template (MVT) architecture** using Django.
* Designed and implemented **database models** for user authentication, points, quizzes, and restaurant check-ins.
* Created a structured approach for managing user profiles and sustainability-related data.

**A white background with black dots

AI-generated content may be incorrect.1.2 Core Features Implemented**

* **User Authentication:**
  + Registration and login system implemented using Django’s built-in authentication.
  + Custom user profiles created to store sustainability points and additional data.
* **Gamification & Points System:**
  + Users earn points for completing quizzes and check-ins.
  + A **Leaderboard** ranks users based on their total points.
* **Sustainability Quiz:**
  + Users can answer sustainability-related questions to earn points.
* **QR Code Check-In System (Prototype):**
  + Users can check into predefined locations (though mobile scanning is still under development).
* **Restaurant Listings:**
  + Admins can add verified sustainable restaurants to the database.

**🚧 2. Challenges Faced & Solutions**

**2.1 Implementing the Quiz System**

* Initially followed an online tutorial to create the quiz system.
* Struggled with adapting it to the project’s unique requirements.
* Faced difficulties working across multiple operating systems (Windows, Linux, and laptop setup).
* Eventually integrated quiz points with another team member’s UI.

**2.2 Passing User Profiles to Relevant Pages**

* Encountered issues ensuring user profiles were correctly passed to search results, editing pages, and other linked forms.
* Required **retrofitting URLs and adjusting forms** to accommodate profile data properly.
* Successfully resolved through updates to URL routing and form handling.

**2.3 Styling Login & Registration Forms**

* Django’s auto-generated forms (from forms.py) were difficult to modify with basic HTML & CSS.
* Customization is still in progress, requiring more control over form rendering.

**2.4 QR Scanner Limitations**

* QR scanner works successfully on **PC browsers** but does not function correctly when accessed via **mobile devices**.
* Further development is needed to ensure cross-device compatibility.

**🔮 3. Future Plans for Sprint 2**

**3.1 Feature Expansions**

* Improve **points & rewards system**, including new ways to earn points.
* Implement **verified check-in system** using QR codes for sustainability locations.
* Expand the **challenge system** to include more interactive sustainability tasks.

**3.2 UI/UX Enhancements**

* Improve design and styling for login, registration, and leaderboard.
* Add **animations and user-friendly layouts** for better engagement.

**3.3 Testing & Security**

* Expand **test coverage** for login, quiz, and leaderboard.
* Ensure **GDPR compliance** with secure data handling and user consent mechanisms.

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a phone

AI-generated content may be incorrect.

**Sprint 1 has successfully laid the foundation for our sustainability gamification platform.** Future sprints will focus on refining features, improving UI/UX, and enhancing overall functionality.