**Project Title: Development of a web application for food sharing**

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**1. Project Idea:**

This project aims to address **food insecurity** through a web based app that connects **vendors with excess food** to individuals in need. The app will focus on two key initiatives:

* **Local Food Redistribution Plan**: This initiative connects local vendors with individuals who have food insecurity issues, using a machine learning algorithm to classify their specific food needs.
* **Emergency Food Assistance Plan**: This plan addresses food security in areas affected by natural disasters, war, or other crises, by coordinating food donations and volunteer efforts from organizations and foundations.

**2. Relevance to Sustainable Development Goals (SDGs):**

* This project aligns with **SDG 2: Zero Hunger**, which focuses on ending hunger, achieving food security and promoting sustainable agriculture. By reducing food waste and ensuring equitable food distribution, the project contributes to creating sustainable solutions for food access, while supporting disaster relief and community resilience.

**3. Literature Examples:**

[Morilla et al, (2021](https://ieeexplore.ieee.org/document/9681394/authors#authors)) developed a web application, called ***Foodernity*** in Philippines. As stated, food insecurity remains a critical issue in low-income areas, exacerbated by crises like the COVID-19, with this solutions aiming to improve food accessibility and reduce waste.

***Food for All*** web application is to connect donors and recipients is lacking in Sri Lanka. This system addresses the need by connecting individuals with surplus resources to those in need, providing a platform to share information about food requirements, and enabling organizations to raise funds for related projects. Admin verification ensures trust and prevents fraud ([Chandula et al, 2022)](https://ijemr.vandanapublications.com/index.php/j/article/view/867/771).

Based on the literature review mobile & web applications have been developed in different places with various features. However, our app is focused on more Afghanistan’s setting which is has not been developed any by now.

**4. Describe Your Data:**

* At the initial stage, data will be manually entered by vendors and users, focusing on meal availability, timings, and user authentication. The data will be stored in CSV files or an SQL database with validation checks to ensure accuracy.

**5. Approach (Machine Learning or Deep Learning):**

* The project currently relies on basic CRUD operations for managing structured data, without advanced algorithms. In the future, machine learning will predict food demand and identify underserved areas and vulnerable groups. As the system evolves, deep learning may be used to process complex data like images or geospatial inputs.