



**UNIVERSITY OF
PLYMOUTH**

Group B -26

Project proposal

Name	Plymouth id numbers	Roles
WDD Sathsara	10899235	Planning Leader
G L D R I Siriwardhana	10898919	Quality Leader
WMK Fonseka	10899263	Project Leader
WKC Alwis	10899231	Testing and Maintenance Leader
W S K Botheju	10900327	Techincal Leader
M E R Perera	10899338	Programming Leader

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Project Overview

Despite the enormous concerns about the environment and the imminent threat to our planet posed by climate change and ecological degradation, an innovative concept that aims to transform our perspectives on agriculture and sustainability emerges as a ray of hope. Welcome to EcoNet a revolutionary network that uses computational power to bring in a new era of environmental awareness in the agriculture sector.

“EcoNet” is a comprehensive digital platform designed to enhance the agriculture field by leveraging computing capabilities and promoting sustainability in various aspects of agriculture and daily life.

The idea of our project is an application and software, Application for clients(users) and software for administrators.

First, we must consider the application for the client. The main functionalities of “EcoNet” application are as follows:

- I. Registration & Login
- II. Carbon Footprint Monitor
- III. Sustainable Product Marketplace
- IV. Crop cultivation and methodologies
- V. Ecological Education
- VI. Green community initiatives
- VII. Eco-Challenges & Gamification
- VIII. Water Conservation
- IX. Forest and vegetation

And the main functionalities of “EcoNet” software for the administrators are as below:

- I. Registration & login with Verification
- II. User Management
- III. Reporting and Analytics
- IV. Carbon Footprint Monitor management
- V. Sustainable Product Marketplace management
- VI. Crop Cultivation Oversight management
- VII. Ecological Education management
- VIII. Community Support management
- IX. Eco-Challenges & Gamification Management
- X. Water Conservation management
- XI. forest and vegetation management

“EcoNet” is a holistic platform that not only raises awareness about sustainability but also provides practical tools and resources to make a positive impact on the environment. Whether you're an individual looking to reduce your carbon footprint, a company striving for sustainability or a farmer seeking agricultural guidance, “EcoNet” is your comprehensive solution for a greener and more eco-friendly future.

In this digital age, “EcoNet” emerges as a catalyst for change, a force that unites the agricultural industry and individuals in the seeking for sustainability. With its innovative features, knowledge, and transformative potential, it empowers each of us to be the change we wish to see in the world, ensuring that our agriculture is not just productive but also sustainable, ethical and eco-friendly. It's a call to action, a promise for a greener, more sustainable future. Where computing meets agriculture to safeguard the planet for generations to come.

Objectives

Application Development:

Allows users to measure their environmental impact through their daily habits, suggesting eco-friendly alternatives. It's helping users reduce carbon emissions via actionable insights and customized goals.

This space showcases eco-friendly products, emphasizing sustainable agriculture and giving users clarity on the products' origins, ensuring they align with organic and local sourcing.

Serve as a comprehensive guide for gardening enthusiasts, providing extensive information on cultivating a range of plants, from basic veggies to complex crops.

Diving deep into topics like sustainable farming, water conservation, organic practices and soil preservation. This positions it as a valuable tool for farmers and hobbyists, promoting eco-conscious cultivation.

Foster local engagement, connecting users with community-led environmental projects, Knowledge is shared between users.

Adding a fun element, Monthly tasks and incentives push users towards sustainable actions, Encouraging green concepts.

Practical advice on preserving water resources, giving users a clearer understanding of their local water ecosystems.

Furthermore, enhance users appreciation for biodiversity, fostering informed choices that benefit the environment and its diverse inhabitants.

Software Development:

Aims to foster a secure, thriving community by managing user accounts, roles and permissions, ensuring data privacy and fostering trust within the eco-conscious community.

Maintain fresh, relevant content, including educational materials, sustainable product listings and community initiatives, to keep users informed and motivated in their sustainability efforts.

Make data-driven decisions, collecting and analyzing user data, eco-challenge participation and carbon footprint information to monitor platform performance, impact, and improvement areas.

Designed to motivate users to adopt sustainable practices, with administrators overseeing their creation, management and tracking of progress to promote environmental awareness and positive behavior changes.

Provides resources and guidance for users to preserve and restore green spaces, promoting biodiversity and ecosystem health.

Target Users

“EcoNet” is a platform designed to tackle environmental issues related to sustainability and agriculture. It offers an app and software with various features, catering to a broad audience interested in environmentally responsible practices.

Farmers and Agricultural Experts:

A valuable resource for farmers and agricultural professionals, providing tools to track and reduce carbon emissions, aiding in better decision-making and climate change adaptation through information and analysis.

Customers with Green Grocers:

An eco-friendly marketplace that allows environmentally conscious customers to find and purchase products with verified sustainability credentials.

Nature Enthusiasts and Researchers:

A valuable resource for nature enthusiasts, researchers and environmentalists, providing information on local biodiversity and conservation efforts.

Features and Description

Maintaining consistency is the key to a productive feature definition. A predefined framework is followed by most product teams, which makes the goal and details of each item extremely apparent. For writing a product feature, the components listed below provide a general overview; details may differ.

Application Development:

User Registration:

Those who want/like to join us can register by filling in the form.

User Login:

If you are a registered user, you can login to your account by providing username and password.

Carbon Footprint Monitor: *Green-Step*

The initiative raises awareness about individual environmental impact, encourages sustainable habits and provides actionable steps to reduce one's carbon footprint.

Sustainable Product Marketplace: *Marketplace*

The platform provides a trustworthy source for eco-friendly products, promotes transparency in product manufacturing, sourcing and supports environmentally conscious businesses and also manufacturers.

Crop Cultivation and Methodologies: *Growing-Crops*

The teaching of sustainable agricultural methods allows for optimized agricultural yields.

Ecological Education: *Eco-Education*

This resource educates individuals on environmental protection strategies, promotes informed decision-making in daily life and agriculture and enhances their understanding of the importance of sustainable living.

Green Community Initiatives: *Eco-Community*

The platform provides a platform for discovering and participating in community-led environmental projects, fostering a sense of community and collective eco-responsibility and offering opportunities for collaboration on tangible eco-projects.

Eco-Challenges & Gamification: *Eco-Quest*

The platform offers interactive challenges to encourage sustainable habits, a gamified rewards system to motivate eco-friendly actions and an engaging platform for learning and adopting sustainable habits.

Water Conservation: *Aqua-Guard*

Digital tools perigons and strategies for efficient water use, tailored to user needs, regions and enhance understanding of local water ecosystems.

Forests & Vegetation: *Green-Scape*

The database provides a comprehensive understanding of local biodiversity and resources for academic, personal, and professional research on local ecosystems.

Software Development

Administrator Registration:

It is possible to register for the personnel of the relevant department of the institution.

Administrator Login:

If you are a registered administrator, you can login to your account by providing username and password with verification.

User Management:

Maintain the registered user accounts.

Reporting and Analytics:

Collect the user data and build the analytic weekly reports.

Carbon Footprint Monitor Management: *Green-Step Tool*:

Handling environment Green-Step page with better maintenance.

Sustainable Product Marketplace Management: *Marketplace Tool*

Maintain Marketplace and add new events.

Crop Cultivation Oversight Management: *Growing-Crops Tool*

Maintain Growing-Crops page and add new events.

Ecological Education Management: *Eco-Education Tool*

Maintain Eco-Education page and add new events.

Community Support Management: *Eco-Community Tool*

Handling environment community page with better maintenance.

Eco-Challenges & Gamification Management: *Eco-Quest Tool*

Maintain game modes and add new events.

Water Conservation Management: *Aqua-Guard Tool*

Maintain Aqua-Guard page and add new events.

Forest and Vegetation Management: *Green-Scape Tool*

Maintain Green-Scape page and add new events.

Time Frame

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