

Eco Buddy AI – Your Personal CarbonBot

An AI-powered website for climate-conscious living.

Team Name: SheCodes

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University: IGDTUW

GitHub Repo: <https://github.com/NancyJangra/Eco-Buddy>

Why We Need Eco Buddy AI ?

Many individuals are passionate about sustainability, yet face significant hurdles in translating intent into impact. We've identified key challenges that hinder widespread carbon reduction efforts:



Underestimated Footprint

A staggering 68% of people underestimate their actual carbon footprint, leading to a critical awareness gap.

Lack of Engagement

Current carbon tracking tools are often bland, complex, and fail to motivate consistent user engagement.

Guidance Deficit

Users lack personalized, actionable guidance on how to effectively reduce their environmental impact.

Eco Buddy AI : Features



Eco Buddy AI is powered by **CarbonBot**, a smart and interactive AI assistant designed to make sustainability effortless and engaging.

Key Capabilities:

- Accepts **voice**, **text**, and **image** inputs
Understands user intent using **Gemini API**.
- Provides real-time, personalised suggestions to reduce carbon footprint.
- Shares eco-friendly alternatives, climate tips, and progress insights.
- Helps you to be a part of local and global initiatives by connecting users to environment-based NGO's.

Seamless Interaction: How Eco Buddy AI Works



Eco Buddy AI provides a smooth, guided experience that integrates carbon reduction into daily life:

Gemini Assistant

Users initiate interaction within the intuitive app interface.

Select Input Type

Choose between text, or image for diverse interaction.

Intent Processing

Dialogflow and Gemini APIs intelligently interpret user queries.

Eco-Friendly Suggestions

The app provides personalized, actionable advice for reducing carbon.

Action & Reward

Users implement suggestions and earn points, reinforcing positive behavior.

Built on Robust Foundations: Our Tech Stack

Eco Buddy AI is engineered with a modern, scalable architecture, leveraging leading technologies for optimal performance and user experience.



Core Technologies

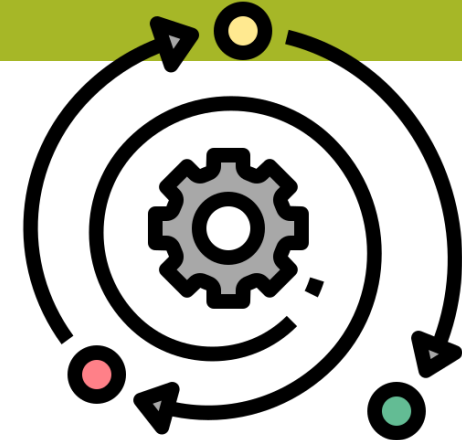
- Frontend: React.js, Tailwind CSS
- Backend: Node.js, Express.js
- Database: Supabase

Key Services

- Auth/Storage: Firebase Auth, Firebase Storage
- AI/NLP: Gemini API
- APIs/Tools: Google Maps API,

Logic & Functionality

- Rendering: Rule-based & conditional rendering and AI integration.



Wider Impact: Who Benefits from Eco Buddy AI?

Eco Buddy AI is designed for broad applicability, empowering various sectors to contribute to a greener future.

Individuals

Empowering personal carbon footprint reduction.

Educational Institutions

Teaching sustainability concepts to students.

Corporations

Facilitating Corporate Social Responsibility (CSR) programs.

NGOs & Government

Driving public awareness and collective action on climate.

Future Scope

- **_Product-based envision – user can redeem gift vouchers.**
- **Better credibility for reward system.**
- **More efficient accuracy of the bot.**
- **Deployment in mobile applications.**
- **Voice to text integration.**

Feasibility & Innovation at Eco Buddy AI

Our approach integrates cutting-edge technology with real-world data to deliver a truly unique and impactful solution.

Robust Feasibility

- Utilizes real carbon footprint datasets for accuracy.
- Cloud-scalable architecture ensures future growth and reach.
- Leverages established APIs for reliable performance.

Unparalleled Innovation

- First-of-its-kind AR scanner for instant product analysis.
- Interactive AI chatbot for personalized guidance.
- Gamified actions combine social motivation with tangible impact.

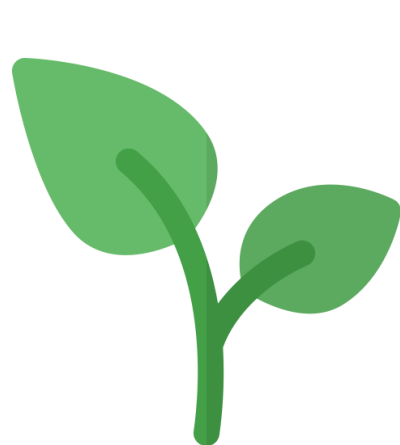
Eco Buddy AI: Your Partner for a Greener Tomorrow



Eco Buddy AI transcends traditional carbon tracking, transforming climate action into an engaging, daily habit. We are confident that our scalable, user-centric platform will inspire a new wave of environmental consciousness.

Transformative Impact

Turns climate action into a fun, daily habit for everyone.



Scalable & Engaging

Ready for deployment and poised for widespread adoption.

