Statement of Work (SOW) for Carbon Footprint Calculator

Project Title: Carbon Footprint Calculator

Date: February 7, 2025
Prepared By: Mahindra University

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1. Introduction

The Carbon Footprint Calculator is designed to help individuals and organizations measure their environmental impact by calculating their carbon emissions. This tool will provide insights on energy consumption, transportation habits, waste generation, and other lifestyle choices contributing to carbon footprints. The goal is to promote awareness and encourage sustainable habits to reduce environmental impact.

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2. Scope of Work

This project involves designing and developing a web-based application that accurately calculates a user's carbon footprint based on input data and provides recommendations for reducing emissions.

Key Features:

- User-friendly interface for easy data input.
- Emission calculations based on transportation, energy use, diet, and waste habits.
- Personalized recommendations for reducing carbon emissions.
- Data visualization tools (graphs and charts) to track progress.
- Option to compare footprints with national and global averages. ● Educational resources and sustainability tips.

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3. Deliverables

Deliverable	Description	Due Date
UI/UX Design & Wireframe	Initial design and wireframes for the app	February 7, 2025
Core Development	Implementation of the carbon calculation algorithm and recommendation system	Februar y

		22, 2025
Final Deployment	Launch and deployment of the application	March 9, 2025

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4. Timeline and Milestones

Milestone	Description	Due Date
Project Kickoff	Initial planning and team alignment	Feb 7, 2025
Phase 1 Completion	Completion of UI/UX and backend architecture	Feb 22, 2025
Final Delivery	Submission of the fully functional Carbon Footprint Calculator	March 9, 2025

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5. Roles and Responsibilities

Front end : Sai charan and Madhu Sudhan Reddy

Back end : Sohith , Dhanush and Durga Rushi

Data base management : Sahith Potu

From development and design to content creation and project coordination, each team member contributes to ensuring the website is successfully built and deployed. Their collective efforts and collaboration drive the smooth execution and completion of this initiative.

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6. Assumptions and Constraints

Assumptions:

- Access to reliable carbon footprint calculation datasets.
- Users provide accurate and honest input data.

- The application is accessible on both desktop and mobile devices.
- Integration with third-party APIs for updated emission factors (e.g., energy consumption data).

Constraints:

- Limited timeline due to academic deadlines.
- Dependence on external databases for carbon emission factors.
- Potential variations in emission calculations due to regional differences.

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7. Conclusion

The Carbon Footprint Calculator aims to empower users with knowledge about their environmental impact and inspire them to make sustainable choices. By providing accurate calculations, insightful data visualization, and actionable recommendations, this tool will help drive positive behavioral change towards reducing carbon emissions. Continuous updates and user feedback integration will ensure the calculator remains an effective resource in the fight against climate change.

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8. Approval Signatures

Client Contact: Software Engineering Course, Mahindra University

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