1. Introduction

1.1. Product Overview

Planetze is a sustainability platform designed to empower individuals and employees to track, reduce, and offset their carbon footprint. With the rising importance of climate action, Planetze provides users with personalized insights into their environmental impact and offers real-time data on their daily carbon emissions. Users can adopt eco-friendly habits, and contribute to certified carbon offset projects, making climate action accessible and achievable for everyone.

2. Features & Functionality

2.1. Key Features

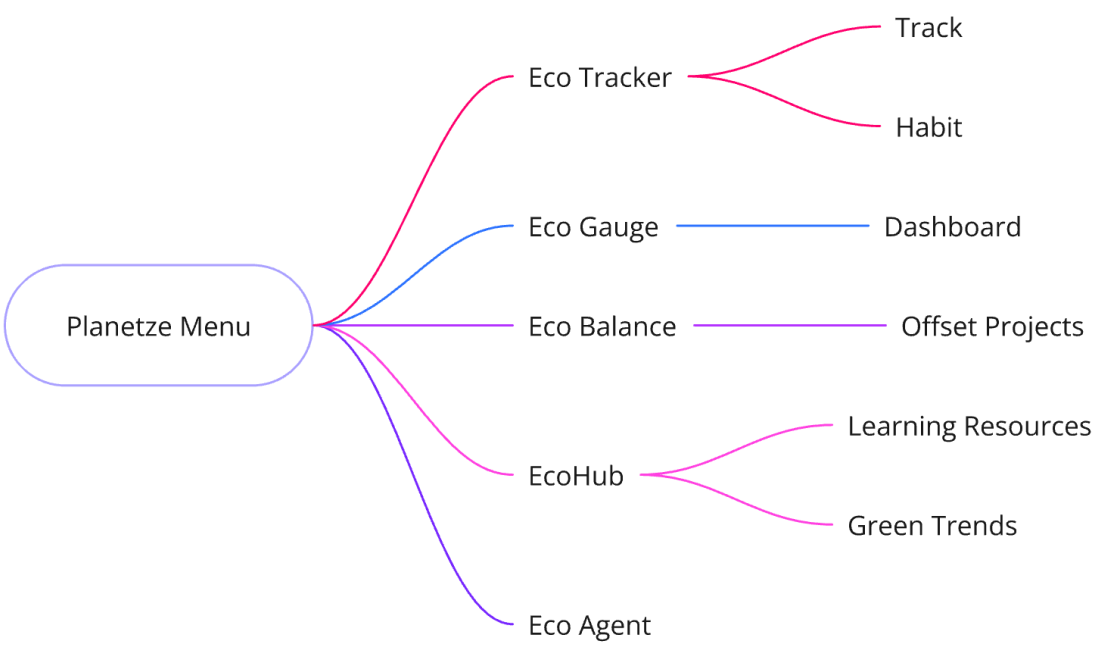
Eco Tracker: Tracks users' carbon emissions based on their daily activities.

Eco Gauge: A visual representation of progress toward carbon reduction goals, motivating users with clear, tangible results.

Eco Balance: Provides users with the ability to offset their carbon emissions.

Eco Hub: A resource center with educational content, and sustainability tips to help users stay informed and engaged.

Eco Agent: It's an easy-to-navigate chat interface where the user can interact with the AI conversationally.



2.2. User Flows

Download & Open App: The user downloads the app and opens it for the first time.

First-Time User Onboarding: The app welcomes users and prompts them to begin the initial setup.

Introduction to Carbon Footprint Calculation: The app briefly explains that it will ask a few questions to calculate their annual carbon footprint. This step will only happen once unless the user decides to recalculate later.
Message example: "Let's get started! We will calculate your current carbon footprint based on your lifestyle. You only need to do this once."

Annual Carbon Footprint: The user answers a few questions about their lifestyle to calculate their yearly carbon footprint and compare it to the national average. (First Time Only)

Navigation to Main Menu: The user is then directed to the Eco Tracker to monitor daily emissions.

Access to Other Menus: After Eco Tracker, users can explore Eco Gauge, Eco Balance, Eco Hub, and Eco Agent.

3. Feature Breakdown

User Registration

1. Access Registration

When a user first opens the Planetze app, they are greeted with a welcome screen that gives them the option to either:
Log In (if they already have an account)
Sign Up/Register (if they are new to the app)

2. Registration Screen

When the user selects Sign Up/Register, they are taken to a registration screen where they will input the following details:

Full Name: User's first and last name.
Email Address: User's email for account verification.
Password: A password field where users create a secure password.
Confirm Password: The user is prompted to re-enter the password for confirmation.

3. Account Confirmation

After filling in the registration form, the user clicks Register. The app then:
Sends a confirmation email to the email address provided.
Once the user confirms their email, they can proceed to log in.

User Log In

1. Access Log In

On the welcome screen, existing users select Log In.

2. Log In Screen

Users are taken to the log in screen where they will input their credentials:
Email Address: The email address they used to sign up.
Password: The password created during registration.

3. Authentication

After entering the correct credentials, the user clicks log in, and the app authenticates the information.
If successful, the user is redirected to the main dashboard of the app (e.g., Eco Tracker or Eco Agent).
If the credentials are incorrect, an error message will be shown: "Invalid email or password."

4. Forgot Password

If a user forgets their password, they can click the Forgot Password link. They are prompted to enter their email address, and the app sends them an email with instructions to reset their password.

Annual Carbon Footprint

This section will detail the questions asked to users to gather the necessary data for calculating their carbon emissions.

Please specify your current location
List of Country dropdown

- **Transportation**

Personal Vehicle Use: **1.** Do you own or regularly use a car?

Answer:

Yes

No

If the user selects "Yes," we can proceed with the detailed car-related questions. If they select "No," we can skip to questions about other transportation options like public transport.

Personal Vehicle Use: **2.** What type of car do you drive?

Answer:

Gasoline

Diesel
Hybrid
Electric
I don't know

Personal Vehicle Use: **3.** How many kilometers/miles do you drive per year?

Answer:

Up to 5,000 km (3,000 miles)
5,000–10,000 km (3,000–6,000 miles)
10,000–15,000 km (6,000–9,000 miles)
15,000–20,000 km (9,000–12,000 miles)
20,000–25,000 km (12,000–15,000 miles)
More than 25,000 km (15,000 miles)

Public Transportation: **4.** How often do you use public transportation (bus, train, subway)?

Answers:

Never
Occasionally (1-2 times/week)
Frequently (3-4 times/week)
Always (5+ times/week)

Public Transportation: **5.** Question: How much time do you spend on public transport per week (bus, train, subway)?

Answers:

Under 1 hour
1-3 hours
3-5 hours
5-10 hours
More than 10 hours

Air Travel: **6.** How many short-haul flights (less than 1,500 km / 932 miles) have you taken in the past year?

Answers:

None

1-2 flights
3-5 flights
6-10 flights
More than 10 flights

Air Travel: **7.** How many long-haul flights (more than 1,500 km / 932 miles) have you taken in the past year?

Answer:

None
1-2 flights
3-5 flights
6-10 flights
More than 10 flights

- **Food**

8. What best describes your diet?

Answers:

Vegetarian
Vegan
Pescatarian (fish/seafood)
Meat-based (eat all types of animal products)

9. How often do you eat the following animal-based products?

(Tip: This question only appears if the user selects Meat-based in 8)

Answers:

Beef:

Daily
Frequently (3-5 times/week)
Occasionally (1-2 times/week)
Never

Pork:

Daily
Frequently (3-5 times/week)
Occasionally (1-2 times/week)

Never

Chicken:

Daily
Frequently (3-5 times/week)
Occasionally (1-2 times/week)
Never

Fish/Seafood:

Daily
Frequently (3-5 times/week)
Occasionally (1-2 times/week)
Never

10. How often do you waste food or throw away uneaten leftovers?

Answers:

Never
Rarely
Occasionally
Frequently

- **Housing**

11. What type of home do you live in?

Answers:

Detached house
Semi-detached house
Townhouse
Condo/Apartment
Other

12. How many people live in your household?

Answers:

1
2
3-4

5 or more

13. What is the size of your home?

Answers:

Under 1000 sq. ft.

1000-2000 sq. ft.

Over 2000 sq. ft.

14. What type of energy do you use to heat your home?

Answers:

Natural Gas

Electricity

Oil

Propane

Wood

Other

15. What is your average monthly electricity bill?

Answers:

Under $50

$50-$100

$100-$150

$150-$200

Over $200

16. What type of energy do you use to heat water in your home?

Answers:

Natural Gas

Electricity

Oil

Propane

Solar

Other

17. Do you use any renewable energy sources for electricity or heating (e.g., solar, wind)?

Answers:

Yes, primarily (more than 50% of energy use)

Yes, partially (less than 50% of energy use)

No

- **Consumption**

18. How often do you buy new clothes?

Answers:

Monthly

Quarterly

Annually

Rarely

19. Do you buy second-hand or eco-friendly products?

Answers:

Yes, regularly

Yes, occasionally

No

20. How many electronic devices (phones, laptops, etc.) have you purchased in the past year?

Answers:

None

1

2

3 or more

21. How often do you recycle?

Answers:

Never
Occasionally
Frequently
Always

- **Displaying Annual Carbon Footprint Results**

1. Overview of Carbon Footprint Calculation

After the user answers the questions related to transportation, food, housing, and consumption, the app will automatically calculate their annual CO2e emissions.
The result will be displayed as the user's total annual carbon footprint, measured in tons of CO2e per year.

2. Breakdown of Results

The app will present the user's total annual carbon footprint along with a breakdown by category.
Each category will show its individual contribution to the total footprint, allowing the user to understand which areas have the highest impact.

3. Comparisons and Benchmarks

Show how the user's footprint compares to the average carbon footprint for their country or region.
Example: Your carbon footprint is 30% below the national average for Canada.
Global Target Comparison: Show how their footprint compares to global targets for reducing climate change.

Eco Tracker

The Eco Tracker is the core tool for monitoring user carbon emissions in real time, collecting user input, and providing feedback on emissions for various activities.

A. Carbon Emissions Monitoring

The Eco Tracker displays the user's daily carbon emissions based on their activities (transportation, energy use, food consumption, etc.).

The app will gather data from user inputs and ask users to manually input certain activities (e.g., kilometers driven, meals consumed)
Emissions from activities such as home energy use can be estimated based on regular inputs (e.g., monthly energy bills) or pre-set averages for certain activities like appliance usage.

Input Methods:

Manual Input: Users will manually input data for activities like driving, public transportation, energy use, food, and consumption.

Activity List for Daily Carbon Footprint Tracking:

1. Transportation Activities

- Drive Personal Vehicle

  After selecting, the user is prompted to input:

  ➔ Distance driven (e.g., in kilometers or miles)

  ➔ Optionally: change vehicle type (if not the default)

- Take Public Transportation

  After selecting, the user is prompted to input:

  ➔ Type of public transportation (bus, train, subway)

  ➔ Time spent on public transport (e.g., in hours)

- Cycling or Walking

  After selecting, the user is prompted to input:

  ➔ Distance cycled or walked (e.g., in kilometers or miles)

- Flight (Short-Haul or Long-Haul)

  After selecting, the user is prompted to input:

  ➔ Number of flights taken today

  ➔ Short-haul (<1,500 km) or long-haul (>1,500 km)

2. Food Consumption Activities

- Meal

  After selecting, the user is prompted to input:

  ➔ Type of meal (beef, pork, chicken, fish, plant-based)

➔ Number of servings consumed

3. Consumption and Shopping Activities

- Buy New Clothes
  After selecting, the user is prompted to input:
  ➔ Number of clothing items purchased

- Buy Electronics
  After selecting, the user is prompted to input:
  ➔ Type of electronic device (e.g., smartphone, laptop, TV)
  ➔ Number of devices purchased

- Other Purchases
  After selecting, the user is prompted to input:
  ➔ Type of purchase (e.g., furniture, appliances)
  ➔ Number of the purchases

- Energy Bills
  For activities like monthly energy bills that occur less frequently than daily activities (such as driving or walking), we can incorporate them into the Activity List for Daily Carbon Footprint Tracking by providing an option for users to add them when relevant, while ensuring the app tracks these monthly.
  The user selects "Energy Bills" and chooses the type of bill:
  Electricity
  Gas
  Water
  They can enter the specific bill amount (e.g., "$150").

Daily CO2e Emissions Display:

The app will display total CO2e emissions for the current day at the Eco Tracker screen.
A breakdown of activities with CO2e for each logged activity should be shown below.

CO2e Calculation:

Activities are tied to specific emission factors (e.g., driving 20 km in a gasoline car will emit 4.8 kg CO2e).
The app calculates CO2e for each activity upon logging and updates the total emissions for the day.

Calendar and Activity Management Options

- Day Selection for Activity Logging:
  Users can select a day from the calendar to log activities. This allows for backdating or future planning (e.g., for upcoming flights).
- Activity List for Selected Day:
  When users select a specific day, the app shows all the activities logged for that day, with their associated CO2e emissions.
- Past and Future Logging:
  Users can log activities for past or future dates. The app updates the emissions for the selected day accordingly.
- Edit or Delete Activities:
  From the activity list, users can edit or delete activities if they made an error during logging.

B. Habit Suggestions

The Suggest a Habit feature provides users with eco-friendly habits they can adopt to reduce their carbon footprint.

Pre-Defined Habit List:

The MVP will include a basic list of eco-friendly habits across categories like transportation, energy, food, and consumption.

Habit Tracking:

Once users select a habit to adopt, the app will remind them to log activities related to the habit.
Track progress by showing how often the user completes the habit (e.g., number of days walking instead of driving).

Search and Filter for Habits:

Users can search for habits by typing keywords (e.g., "transportation," "recycling").
Filters:
Filter by Type: Users can filter habits by category (Transportation, Food, Energy, etc.).
Filter by Impact: Users can filter habits based on their potential to reduce emissions.
Personalized Recommendations: The app will suggest habits based on the user's activity data and emissions profile.

Eco Gauge

The Eco Gauge should display a dashboard that provides users with a clear snapshot of their carbon emissions and progress over time.

A. Total CO2e Emissions Overview

Total Emissions: Show the user's total CO2e emissions over a selected time period (e.g., weekly, monthly, or yearly).
Example: "You've emitted 72 kg CO2e this month."

B. Emissions Breakdown by Category

Pie Chart or Bar Graph: Display a breakdown of emissions by category, such as: Transportation, Energy use, Food consumption, Shopping/consumption

C. Emissions Trend Graph

Line Graph: Show the trend of CO2e emissions over time (e.g., daily, weekly, monthly). This graph helps users visualize whether they're making progress in reducing their emissions.

E. Comparison to Global or National Averages

Users can compare their emissions to the average carbon footprint in their region or globally. This helps put their progress into context.

Eco Balance

In the Eco Balance section of Planetze, the focus will be on helping users offset their carbon emissions by connecting them to credible and impactful carbon offset projects. This feature can provide users with a way to neutralize emissions they cannot avoid through sustainable habits and behaviors, offering a holistic solution for reducing their overall carbon footprint.

Project Selection and Purchase Flow:

Once users have decided to offset their emissions, the app can guide them through the process of selecting a project and purchasing offsets:

Step 1: Explore Offset Projects

Users can browse through a list of available offset projects, each with a description, location, impact metrics, and cost per ton of CO2e offset.

Example: "This reforestation project in Kenya has planted 10,000 trees and offsets 1 ton of CO2e for every $25 contributed."

Step 2: Offset Purchase

Allow users to select the amount of CO2e they want to offset (based on their emissions data) and purchase carbon credits from the selected project.

Example: "Offset 3 tons of CO2e for $75 by supporting a renewable energy project in India."

Eco Hub

In the Eco Hub section of Planetze, the goal is to provide users with valuable learning resources and market trends that help them stay informed and motivated in their journey toward sustainability. Eco Hub will serve as an educational center where users can access articles, videos, and insights, as well as stay updated on the latest developments in eco-friendly technologies.

1. Learning Resources

2. Market Trends

Eco-Friendly Product Highlights

Provide users with recommendations or introductions to eco-friendly products or services. This could include:

Energy-Efficient Appliances: Information on the latest appliances that reduce energy consumption.

Sustainable Fashion: Brands that focus on ethical production and eco-friendly materials.

Green Home Solutions: Smart home devices and home improvements that reduce carbon footprints.

Eco Agent

The Eco Agent in Planetze will act as a personalized, AI-driven assistant that helps users navigate the app, answer questions, provide real-time advice on reducing carbon emissions, and offer personalized recommendations based on user behavior and goals.

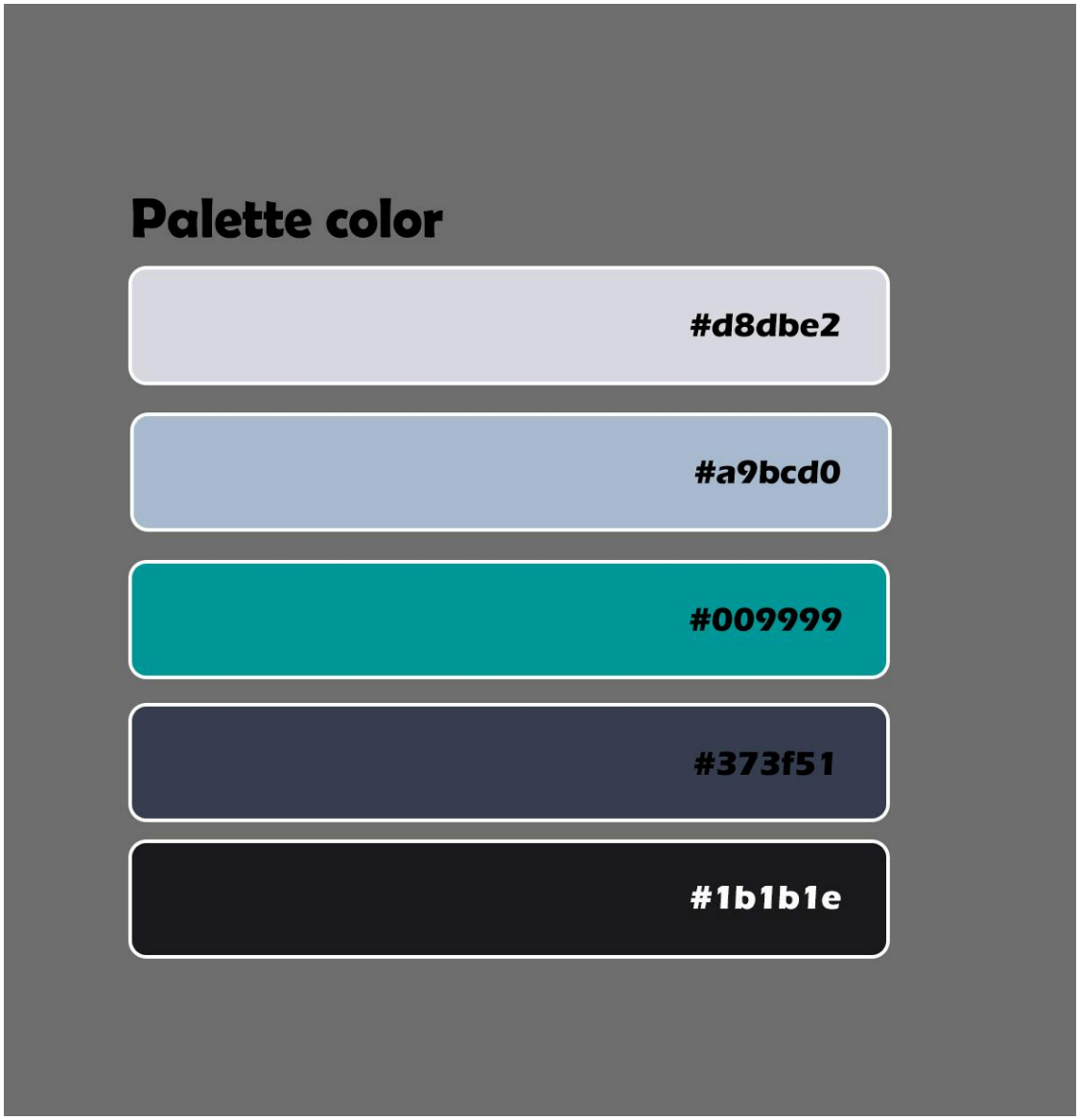
The Eco Agent will be the user's go-to assistant for:

- Answering questions about carbon emissions and sustainability.
- Providing suggestions for reducing carbon footprints.
- Offering habit recommendations and tracking progress.
- Assisting with the use of app features (e.g., how to log activities, set goals, offset emissions).

User Interface(UI) Requirements

Logo:


PLANETZE



Website:
https://planetze.io/