

# GREEN WITH GROOT

## ROADMAP



TEAM : WE\_ARE\_GROOT

A **carbon footprint** is the total amount of greenhouse gases (including **carbon** dioxide and methane) that are generated by our daily actions, expressed as Carbon Dioxide equivalent.

## INTRODUCTION

## ADVANTAGE

3 fold benefits for user :

- has to pay less for bills.
- will receive benefits in form of coins ( redeemable for discounts on environment friendly goods).
- Mental satisfaction gained by contributing towards the welfare of environment.

Our aim is to encourage users of our web app to reduce their carbon footprint by saving electricity and fossil fuels. Less electricity implies less dependence on carbon-intensive power plants. Minimizing individual carbon footprints can play a massive role towards reducing climate change.

## AIM

Under this hackathon, we have built a web application which simplifies and therefore motivates the users to curtail their individual carbon footprint and take a small step to contribute towards the enhancement of the environment. Our web application also promotes the purchase of environment friendly products to combat climate change.

## DESCRIPTION

## FUNCTIONING

Every month, Carbon Footprint of user is calculated and is compared to Carbon Footprint of previous month. If there is a decrease, we add virtual coins in user's account depending upon the difference. These coins can be redeemed in the form of discount coupons for the purchase of some green products.

For now, we have focused on four major parameters-

- Electricity consumption
- LPG consumption
- Petrol consumption
- Diesel consumption

We have used appropriate emission factors from official websites.

## PARAMETERS

Electricity and LPG consumption can be verified by the use of API's like Zuelpay which bring the information directly from government sources.

Petrol and diesel consumption, in actual implementation, can be linked with the details of the vehicle owned by the user (Kilometers, mileage, age, etc).

## VERIFICATION

## STREAK

Feature of **streak**: maintains the number of months for which the user consecutively lowered his/her carbon footprint. Based on the streak the number of coins gained increases accordingly. If a user fails to lower his/her carbon footprint, the streak would reset to 0 and the user will not be able to gain any coins for that month.

We have provided an interface, which would allow organisations to showcase environment friendly products to increase their market and reach and the users can purchase the same via our application.

## INTERFACE

Interested organisations/people can use our interface to promote the market for their used goods or to purchase recycled goods from someone else.

This will increase the usage of recycled goods and will act as a beneficial step towards fighting climate change.

## RECYCLED GOODS

## IMPROVEMENTS

Better scaling of Coins:

Inclusion of more data will help us analyse the measures of central tendency so more robust scaling can be performed.

For instance, using different scaling factors above and below a certain threshold of carbon footprint, better scaling factors for users providing additional parameters regularly, etc

In the future, we plan on :

- Partnering with more organisations.
- Including more parameters for accuracy.
- Integrating our project with openCV tools to read the amount of money directly from images of the bills uploaded by the user.

## FUTURE