

For the description of the project, we want to know exactly how the problem will be addressed from a technical perspective.

So if it is about reducing carbon footprint, how does me signing onto the platform and using the service help me reduce my carbon footprint?

What data will the application house? What features does it have that will help users, say reduce their carbon footprint or improve on other sustainability goals? I want to see 3-4 sustainability goals in the description and how the platform can help users achieve that

The Ashesi Goes Green initiative WebApp will provide two features main features:

- A community sustainability dashboard
- A personal sustainability tracker

The community sustainability dashboard will create a data management system that allows all key stakeholders in the Ashesi University system to provide information concerning sustainability metrics:

- ◆ Operations team for water and power tracking per month/week/day/hour
- ◆ 3 Cafeterias and Essentials store for tracking total quantity of disposable units consumed sold per month

The attempt will be to create a seamless dashboard from which:

- ◆ these key stakeholders can either directly enter their recorded units at regular intervals or
- ◆ an integration is implemented that allows for automatic data scrapping from the systems used by these stakeholders

Both approaches may be used but will depend on other factors like security and interoperability of the systems. This data will then be displayed using various data visualization techniques to enable regular community members to understand Ashesi's degree of sustainability relative to global sustainability metrics.

The individual sustainability tracker is a personalized GPT-based carbon footprint calculator that will provide information on the degree of sustainability of an individual's actions. Using details inquired from the user in a sequence of questions the calculator will provide a standard score of personal sustainability. The first set of calculations include:

- ◆ Personal power consumption: uses details like the hours of use of personal devices, their wattage ratings, or hardware specifications, shower temperature and length, to give the user an approximate power consumption versus some time unit
- ◆ Personal water consumption: uses details like showering time, washing time, and other water behaviors to approximate the amount of individual water consumption
- ◆ Personal waste production index: uses details like shopping behaviors(e.g. whether students eats in or out frequently, buys plastic or paper packs regularly, drinks bottled or fountain water) to approximate the waste production index

All the data for the community and students shall be maintained in a persistent database to allow for trend analysis over time. The system will also provide suggestions for possible hacks to improve sustainability score.