

Dashboard Visualization

Summary - This document aims to visualize the carbon consumption metrics into a real-time visually appealing dashboard for end-users.

1. Calculator

Firstly, we have the calculator, this will be in the left pane at the bottom (Sandbox), and we will automate this calculation and make it like the Cost Comparison tab.

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CloudTuner Carbon Calculator

Estimate Your Carbon Emissions

Fill in the details below to get an estimate of your resource's carbon footprint.

Environment

Cloud

Resource Type

EC2/VM Instance

Power (Watts)

e.g., 65

Hours

e.g., 8

Cloud Provider

Select a provider

Region

Select a region

Calculate

Results

Emissions (gCO2eq/kWh)
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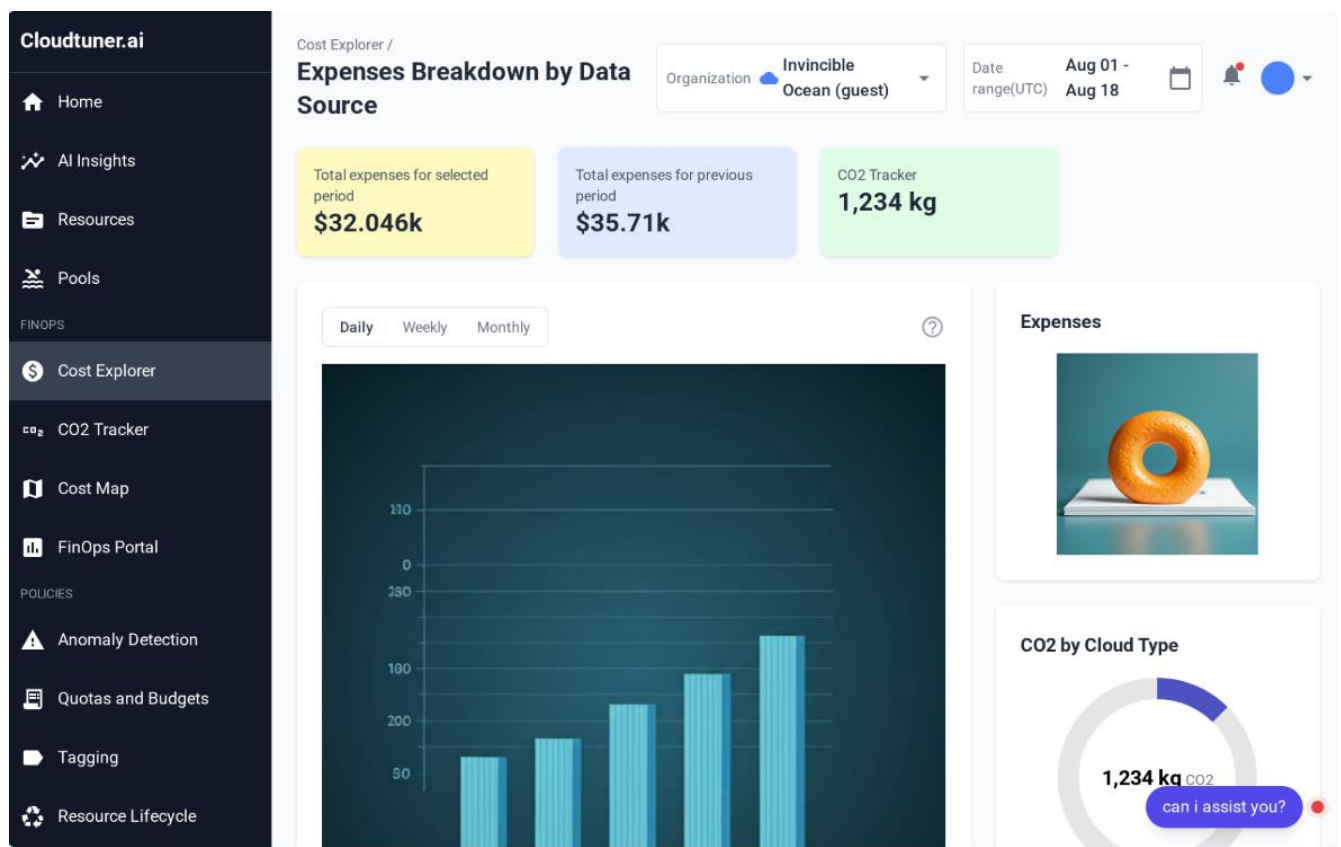
This is just for our testing and if end-user wishes to calculate themselves -

Environment will be a dropdown – Cloud or On-Premises

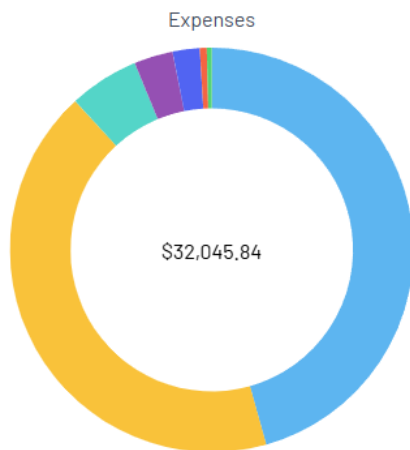
Resource Type will a dropdown – EC2 or Serverless functions

We will put the formula and calculate this in the backend and multiply it with 2.5 (to count for infrastructure emissions) and simply display the result.

2. Data as a scorecard on Cost Explorer tab



Note: The expenses are showing a Donut, but it will be same as we have now on the website-



Cost Explorer / Expenses Breakdown by Data Source /

Expenses Breakdown for Data Source: API-KYC

Total expenses for selected period

\$998.53

Total expenses for previous period

\$1.442K

Breakdown by

Service

Region

Pool

Owner

Resource type

Co2 emission

We are adding these 2 values on this page -



When user clicks on the CO2 by cloud type. It will redirect to the CO2 tracker/ Breakdown

Breakdown for Data Source: API-KYC

Total expenses for selected period

\$998.53

Total expenses for previous period

\$1.442K

Total emissions for selected period

394.5 kgCO2e

Breakdown by

Service

Region

Pool

Owner

Resource type

Co2 emission

Daily

Weekly

Monthly

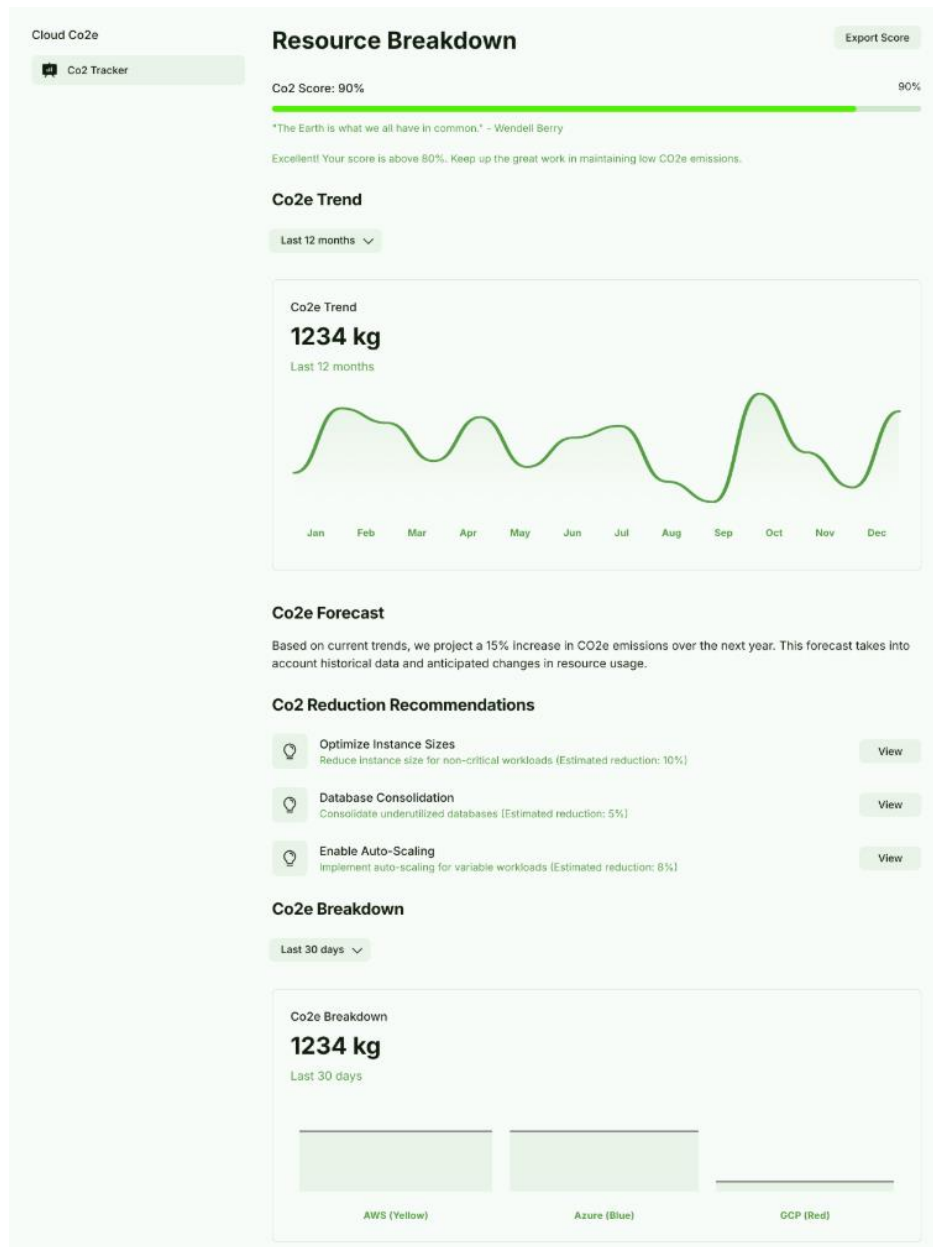
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**Summary by Emissions**

NAME	CO2 EMISSION (AUG 01 - AUG 18) ↓	CLOUD PROVIDER	RESOURCE TYPE
prod-search-es-1	121.4 kgCO2e	GCP	Elasticsearch
prod-search-es-2	80.94 kgCO2e	GCP	Elasticsearch
prod-search-es-3	62.93 kgCO2e	GCP	Elasticsearch
dev-k8s-cluster-1	55.1 kgCO2e	AWS	k8s Cluster
prod-search-es-4	40.5 kgCO2e	GCP	Elasticsearch
staging-vm-2	32.7 kgCO2e	Azure	Virtual Machine

This is a summary of the emissions and when user clicks on the name of the resource, it will point to the Resource Breakdown page which has detailed analysis and recommendations and a real-time Carbon Score.

3. Resource Breakdown page



The user can export their score on their website/ LinkedIn to showcase they are working towards a Greener Planet.

The CO2 score is now displayed with specific colors and messages:

Green for scores above 90, Yellow for 70-89, and Red for below 70, with corresponding success or needs improvement messages.

The CO2 Breakdown will show last 30 days of usage for each cloud platform with their cloud specific color-

 for AWS,  for Azure,  for GCP and each platform will have their icon as well.

When a user follows the Recommendations, the score will improve in real-time.

Based on the data available, we will use Gemini for forecasting.