

EcoTrack

Team 3 Members: Joseph Nguyen, Darrel Tran, Dylan Nguyen, and Prasham Sheth

Team 3 Members

● Joseph Nguyen

- Worked on the database

● Darrel Tran

- Worked on the front-end/back-end

● Dylan Nguyen

- Worked on the front-end/back-end

● Prasham Sheth

- Worked on the front-end





Vision Statement

FOR

Environmentally conscious individuals

WHO

Want to reduce their utility usage

THE

EcoTrack system is a web application

THAT

Helps users keep track of their utility usage and offers them advice on how to save their water, electricity, and gas usage.

UNLIKE

Other energy tracking apps, EcoTrack has a social/challenge layer via weekly challenges and competition between friends.

OUR

Product encourages users to change their utility usage habits in a fun and engaging way to help better the environment.

Features

Sign Up and Login

Users can create an account and log into the website to start tracking their usage.

Notification Settings

Users will receive reminders to log their data, which they can alter the type and frequency of.

Logging Data

Users can track their utilities usage by logging their data into the EcoTrack website.

Weekly Challenges

There will be weekly challenges with reward points to encourage users to save more.

Offering Advice

EcoTrack will offer advice and tips on how users can reduce their utility usage.

Displaying Usage

The user's dashboard uses bar graphs to display data from the last 7 days for all utilities.

Friend Leaderboard

Users can add friends and compete using a leaderboard that shows everyone's points.

Environmental News

Users can access links to current environmental events happening around the world.

Database

- Created using MySQL DBMS
- Relationship constraints and cascading deletions to maintain integrity
- Indexing used to optimize searches and queries

Backend

- Uses Java APIs
 - JDBC
 - GSON
 - Apache Tomcat
- Handles frontend
GET/POST requests
- Modifies/accesses
database

Frontend

- Uses React + React Router
- Other tools
 - Rechart, Typescript, CSS, Axios, Inline SVG, CSS Variables, React Hooks
- Pages
 - Login, Sign Up, Data Entry, Dashboard, Challenges, Community, and News



Screenshots

 EcoTrack

Monitor Your Utilities

Track your household utility usage, reduce waste, save money, and help the environment with our easy-to-use utility tracking system.

[GET STARTED](#)[Login](#)[Enter Data](#)



Track Usage

Monitor your water, electricity, and gas consumption in one place.



Set Goals

Set monthly consumption targets and track your progress.



Save Money

Get insights on how to reduce your utility bills.

Home Page

Create Account

Sign up to start tracking your utility usage and save money.

Account Information

Email *

Phone Number *

Username *

Password *

[CREATE ACCOUNT](#)

[Already have an account? Log in](#)

Sign Up

CS 160

EcoTrack

8



Screenshots

EcoTrack Home

Enter Utility Usage

Record your utility consumption to track your usage patterns and help reduce waste.

Usage Details

Electricity Usage *

Enter kilowatt-hours (kWh)

Water Usage *

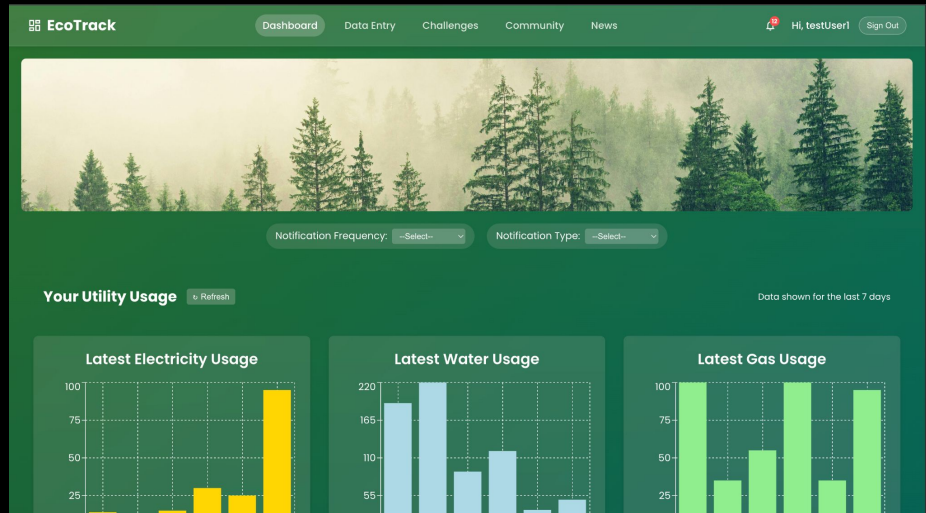
Enter gallons

Gas Usage *

Enter cubic feet

+ SAVE USAGE DATA

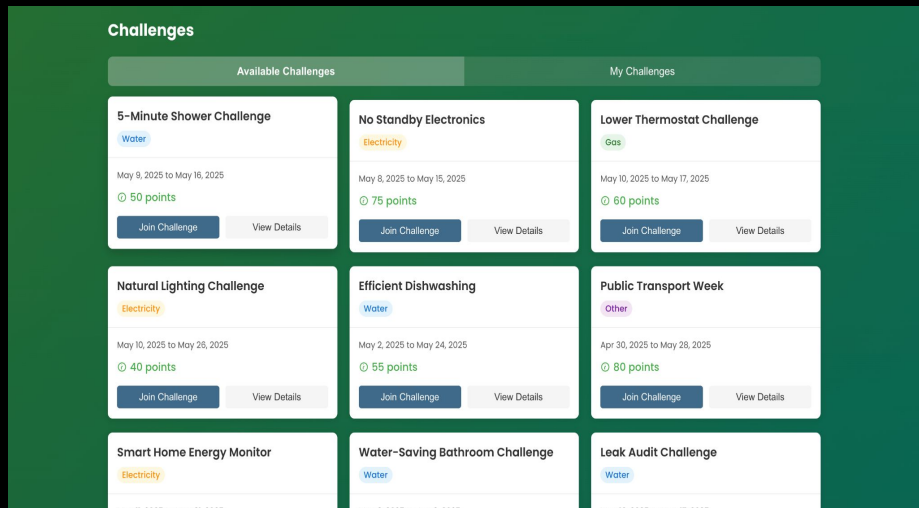
Data Entry



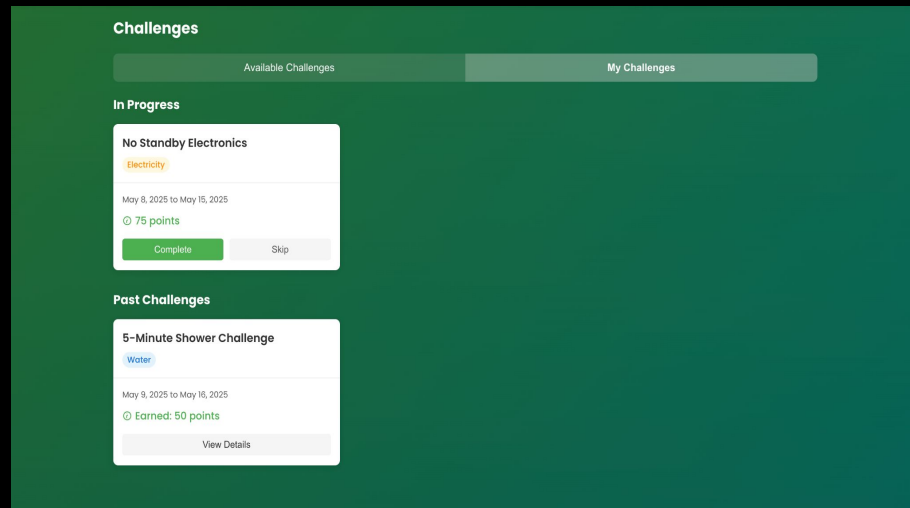
Dashboard



Screenshots



Available Challenges



User Challenges



Screenshots

EcoTrack Community

Leaderboard My Friends Add Friend

Global Leaderboard


Rank	User	Points	Challenges
1	testUser1	50 pts	1 completed
2	testUser2	50 pts	1 completed

Global Leaderboard

EcoTrack Community

Leaderboard My Friends Add Friend

My Friends

 testUser2

Points	Challenges
50	3

User's Friends



Screenshots

EcoTrack Community

Leaderboard My Friends Add Friend


Add a Friend

Friend's Username

[Send Friend Request](#)

Add friend


Environmental News



New Study Shows That Renewable Energy Could Meet Global Demand by 2050

Source: Environmental Science Journal


[Read Article](#)



Local Community Cuts Water Usage by 30% Through Conservation Program

Source: Local News


[Read Article](#)




Major City Announces Plan to Ban Single-Use Plastics by 2025

Source: City News Network

[Read Article](#)



Electric Vehicle Sales Surpass



World Leaders Agree to Ambitious

News Page



Demo

Future work

- Use an API to supply data for the news page
- Additional notification types
- Updating data entry page and backend to support date input

Questions?

—