

# EcoTrack

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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

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EcoTrack

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# 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 \***

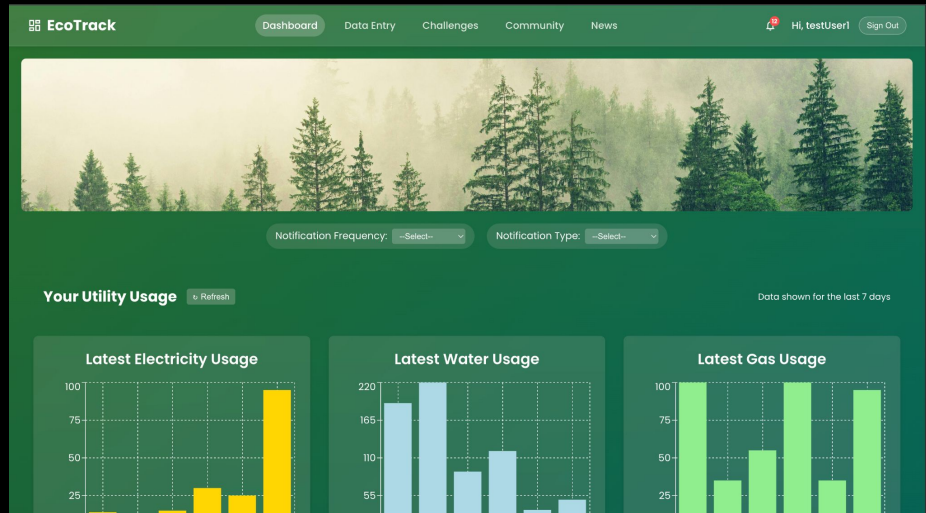
Enter gallons

**Gas Usage \***

Enter cubic feet

**+ SAVE USAGE DATA**

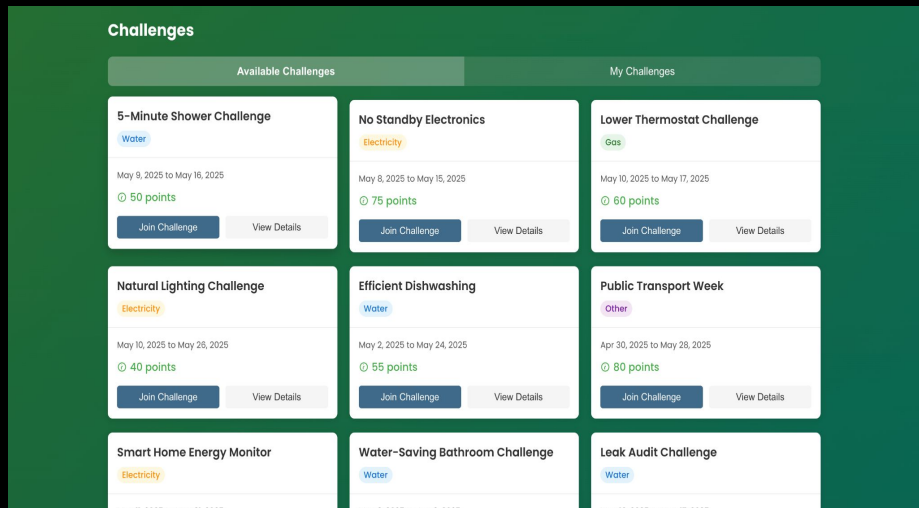
Data Entry



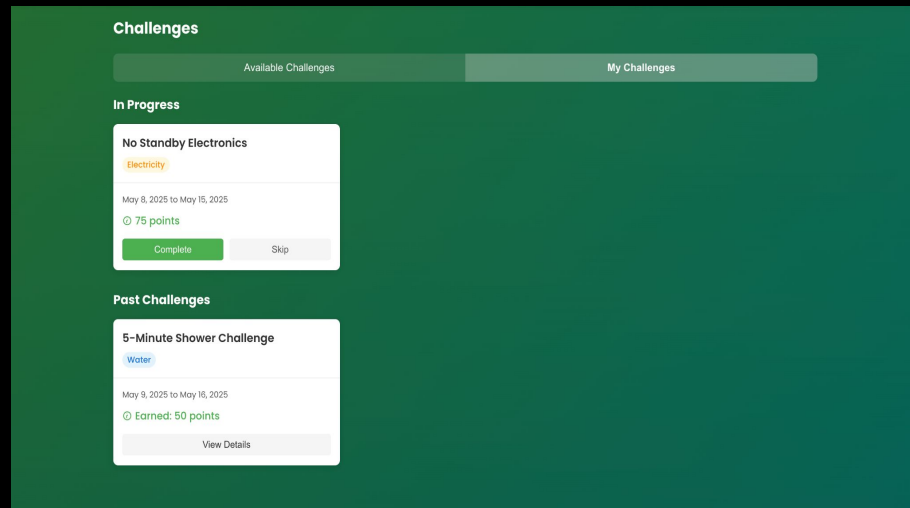
Dashboard



# 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

Questions?

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