

AI-powered Waste Management System

# WASTE ZERO BANGLADESH

Let's Build a Sustainable Future  
For Bangladesh

Presentation by  
IUT\_ACCESS\_DENIED





Definition of

# WASTE ZERO

Zero waste is an approach that aims to reduce waste as much as possible. This concept emphasizes practices such as waste report, collect, recycling and reuse to minimize the environmental impact of human consumption activities in Bangladesh



Why is

# **ZERO WASTE IMPORTANT?**

Bangladesh, grappling with one of the most challenging waste disposal systems, urgently needs zero waste initiatives to combat environmental degradation. The "Waste Zero Bangladesh" app aims to foster a sustainable, eco-friendly society, ensuring long-term environmental benefits for us.



# 5 CONCEPTS OF **ZERO** WASTE



report  
waste

collect  
waste

recycle

reuse

certification





No.1

# REPORT

- User can report waste in their locations by uploading a picture
- AI will help to estimate waste weight and estimate the waste type , making it easy to report waste for us.

No.2

# COLLECT

- User can collect the reported waste from different locations by uploading a picture
- AI will verify the collected and reported waste , making it a smooth experience for users

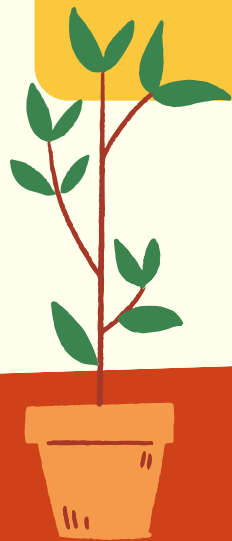


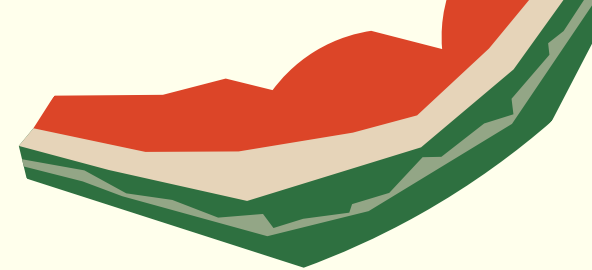
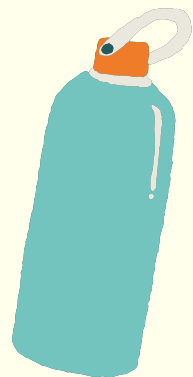
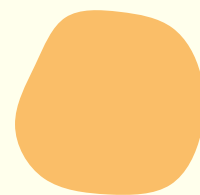


No.4

# RECYCLE

- Support recycling as a way to reduce waste.
- Ensures selection of recyclable products and active participation in recycling programs.





CONSUME  
LESS

CREATE  
MORE!



No.5

# RE-USE

- Reduce the use of single-use items and optimize resource use.
- Choose products with more durable designs to reduce the need for repeat purchases.



No.6

# CERTIFICATION

- Encourage the use of compost for plants.
- Composting organic remains to reduce the amount of organic waste entering landfills.



# TECH STACK:

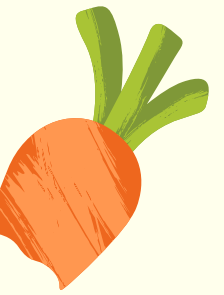


## FRONTEND: **NEXT.JS 14, TAILWIND CSS**



Fast, scalable, and visually appealing user interface.

## BACKEND: **NODE.JS, DRIZZLE ORM**



Efficient backend for real-time data handling.



## **AI TOOL : GOOGLE GEMINI AI**

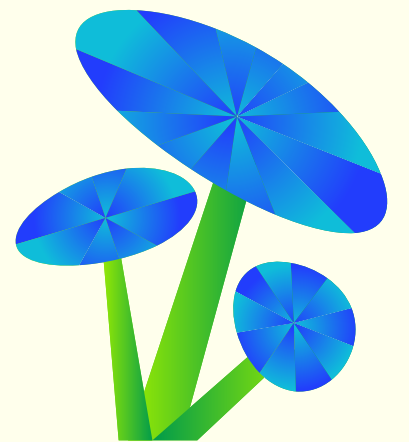
Accurate waste classification and weight estimation.

## **DATABASE: NEON DATABASE**

Scalable, secure, and serverless PostgreSQL.

## **AUTHENTICATION: WEB3AUTH**

Decentralized and secure user authentication



THANK  
YOU

