

Basic Details of the Team and Problem Statement

Ministry: Ministry Of Environment

PS Code: 1392

Problem Statement Title: E-Waste Facility Locator

Team Name: Solutioneers

Team Leader Name: Rudra Kashyap

Institute Code (AISHE): U-0832

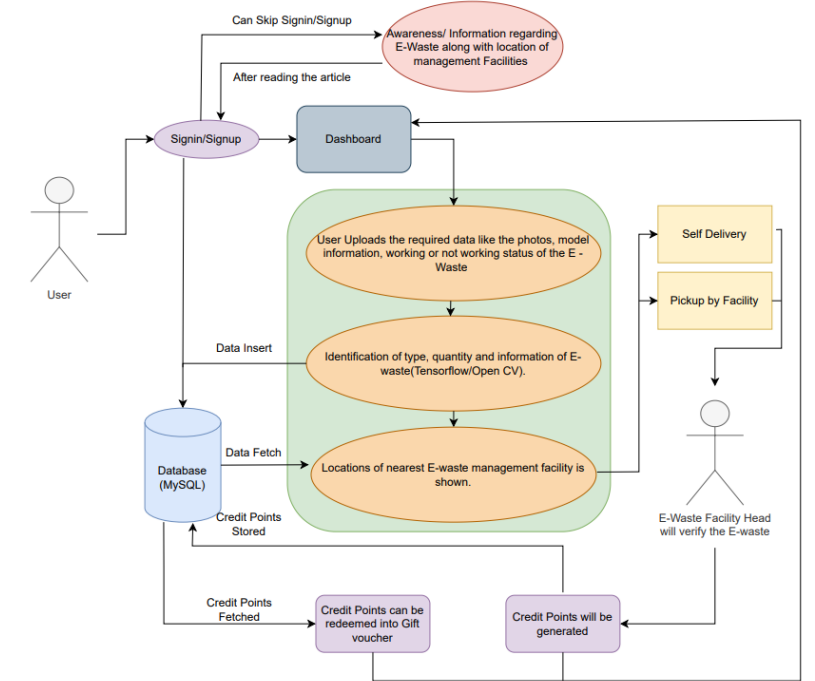
Institute Name: O P Jindal University, Raigarh, Chhattisgarh

Theme Name: Smart Automation

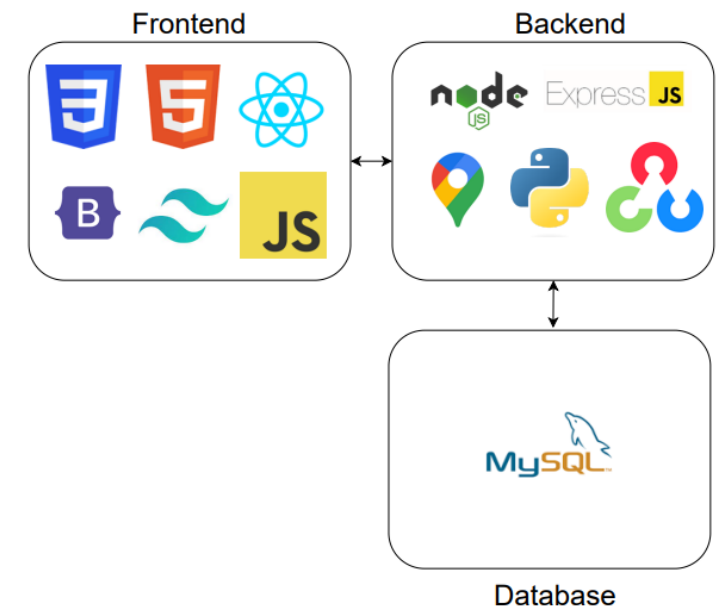
Idea/Approach Details

➤ The surge in electronic waste (e-waste) due to increased device proliferation poses environmental and health risks. Finding responsible e-waste facilities is challenging, leading to improper disposal, pollution, and resource waste. By Developing an E-Waste Management Facility Locator website we will help individuals and businesses easily locate nearby e-waste facilities, promoting responsible disposal and reducing environmental harm. The Prototype will function as follows :-

- Identifying the Electronical wastes through **image analyzing** and **object recognition** using open CV/ Tensor Flow along with form fill up regarding E-Waste details and sending them for further **classification**.
- The nearest E-waste **Disposal** and **recycling centre** to the customer's location will be allocated to consumer through **path optimization** provided by **Google Maps API**.
- After **allocating the location** the consumer will be provided with options that is **Self Delivery** and **Pickup by Facility** and according to which some **estimated credit points** will be displayed. After successful **Verification** the credit points will be processed to the user's account.
- The credit points can be redeemed using our **special credit redeem system** (higher the credits more the privileges) and credits points can be redeemed in form of **discount, gift vouchers**, etc.
- People can **fetch information** regarding e-waste and it's **hazardous effect** to human health and environment which includes **carbon emission**, liberation of **carcinogenic metal** like lead, mercury and cadmium into soil and water.
- Compared to other methods of obtaining e-waste information, our website offers **unmatched convenience**. Unlike searching through directories or making time-consuming calls, our platform **swiftly pinpoints** nearby disposal centers. Make informed **eco-conscious choices** effortlessly, reducing environmental impact while sparing you the hassle of traditional methods.



Technology stack



Idea/Approach Details

Use Cases

User:

1. Locating E-Waste Facility Easily
2. Hassle Free Recycling
3. Home Pickup Facility and Incentives will be provided.
4. Information and Awareness regarding E- Waste

Facility:

1. Time and labour costs saving.
2. Effective procurement and management of E-Waste.
3. Easy Collection of E-Waste.
4. Easy access to customer.

Dependencies / Show stopper

- **Google Maps:** using its API we will be able to locate the E-Waste Management Facility for the Consumer.
- **MySQL Server Database:** for data storage by establishing the connection between the database and backend.
- **24/7 Chatbot:** support for the user query and displaying information regarding E- Waste.
- **E-Waste Facility:** dependent on e-waste facility for funds and collaboration.
- **Gift card vendors:** used for redeeming of credit points by the user.

Team Member Details

Team Leader Name: Rudra Kashyap

Branch(Btech)

Stream (CSE)

Year (II)

Team Member 1 Name: Yash Gupta

Branch (Btech)

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Year (II)

Team Member 2 Name: Nidhi Kumari

Branch (Btech)

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Year (II)

Team Member 3 Name: Amit Kumar Chauhan

Branch (Btech)

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Year (II)

Team Member 4 Name: Ritul Raj Bhakat

Branch (Btech)

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Year (II)

Team Member 5 Name: Om Chilbule

Branch (Btech)

Stream (CSE)

Year (II)

Team Mentor 1 Name: Type Your Name Here

Category (Academic/Industry):

Expertise (AI/ML/Blockchain etc):

Domain Experience (in years):

Team Mentor 2 Name: Type Your Name Here

Category (Academic/Industry):

Expertise (AI/ML/Blockchain etc):

Domain Experience (in years):