

Basic Details of the Team and Problem Statement

Ministry/Organization Name: Ministry of Environment

Problem Statement Title : E-Waste Facility Locator

Team Name : Web Wizards

Team Leader Name : Anuprita Mhapankar

PS Code : 1392

Problem Statement: Website that tells you the location of the nearest e-waste collection and recycling facility. Offers educational pop-ups on the harmful components of your e-waste and their effects on the environment and human health if not disposed correctly. There could be an option to input the model of your old device and earn credit points relative to the amount of precious metals recovered from the device if disposed correctly.

Institute Name : Vivekanand Education Society's Institute of Technology

Institute Code (AISHE) : 3185

Theme Name : Smart Automation

Idea / Approach Details

Idea : GADGET-GREEN

Gadget-Green is an innovative website designed to address the critical issue of electronic waste (E-Waste) disposal. It serves as a one-stop solution for users looking to dispose of their E-Waste responsibly while also educating them about the environmental and health impacts of improper disposal.

1. E-Waste Collection Locator: Gadget-Green provides users with a user-friendly interface to locate the nearest E-Waste collection and recycling facilities. Users can input their location or use geolocation services to find the most convenient drop-off points.

2. Educational Pop-ups: The website offers educational pop-ups that inform users about the harmful components present in E-Waste and their adverse effects on the environment and human health when not disposed of correctly.

3. Device Model Input and Credit Points: Users can input the model of their old electronic devices, such as smartphones or laptops by clicking images. Gadget-Green calculates credit points based on the amount of precious metals that can be recovered from these devices when recycled.

HIGHLIGHTS

- User-friendly interface.
- Geolocation services to detect nearby centres.
- Image detection through Machine learning.
- Automated report generation
- Credit points and rewards
- Reward by tree plantation
- Donation along with recycling.
- Educational popups and creating awareness



Tech Stack

Front-End : HTML, CSS, JavaScript, Next.js, React.js, Express.js

Back-End : Node.js, Python, TensorFlow

Database : Firebase, MySQL, MongoDB

Machine learning : Python Libraries

STEP1: User logs in through username and password. Here, we can use **API** by connecting databases like Firebase with our application to provide **real time authentication**.

STEP 2: Dashboard is displayed where user can check history, credit scores, recent activities and user details. User will be provided 3 options

OPTION 1: Donate – User can donate old electronic devices to NGO's. Hence, our web app will take input of user location and locate the nearest NGO center by **automatic geolocation services**.

OPTION 2: Know about E-Waste – Educational popup of e-waste management and hazards.

OPTION 3: Locate E-Waste centre- Here, first user will be asked to input name of the electronic device along with location of user. User can also upload the image of the electronic device which will be **autodetected by machine learning** feature.

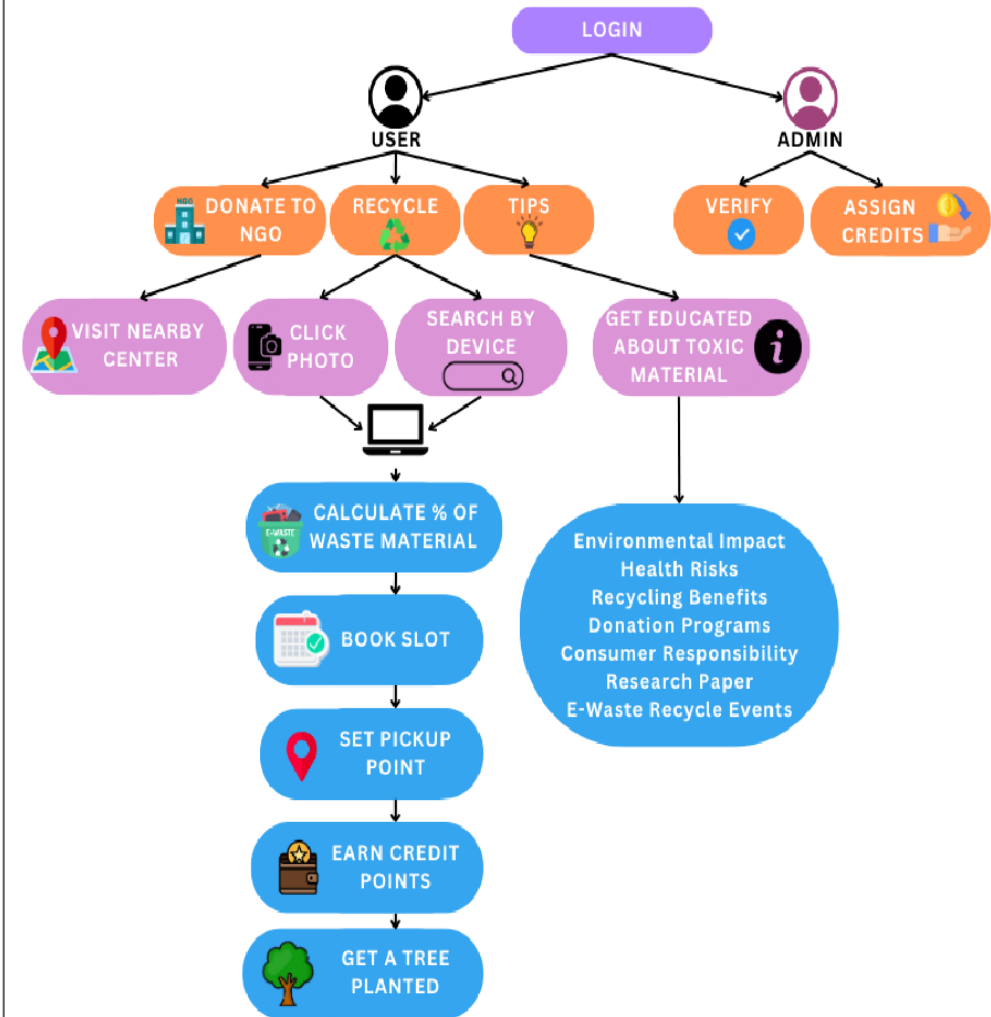
Then an **autogenerated report** will be displayed which will contain data like

1. % harmful metal in the device.
2. its hazardous impact on environment.
3. % recyclable material in the device etc.

Next, Address and time slots of nearby e-waste recycling centres will be displayed where he/she can visit and handover the electronic device.

Admin will assign credit points to user relative to the amount of precious metals recovered from the device if disposed correctly. Users with more than 100 credit points will earn exciting rewards or rewarded by planting tree.

USE CASE



Team Member Details

Team Leader Name: Anuprita Mhapankar

BTECH INFT Year II

HTML | CSS | JavaScript | MySQL | Java | C | C++ | Figma | Canva

Team Member 1 : Pranav Pol

BTECH INFT Year II

HTML | CSS | Java | C | C++

Team Member 2 Name : Eesha Chavan

BTECH INFT Year II

HTML | CSS | MySQL | C | Figma | Canva

Team Member 3 Name : Shravani Rasam

BTECH INFT Year II

HTML | CSS | Java | C | C++ | Python | MySQL | Figma | Canva

Team Member 4 Name : Siddhant Sathe

BTECH INFT Year II

HTML | CSS | Java | C | C++ | Python | MySQL

Team Member 5 Name : Vedang Wajge

BTECH INFT Year II

HTML | CSS | Java | C | C++ | Python | MySQL

Team Mentor 1 Name: Ms. Pooja Shetty

Academic: Expertise : Web development

Domain Experience (in years): 14

CERTIFICATES



CERTIFICATE OF COMPLETION

Presented to

Vedang V. Wajge

For successfully completing a free online course
C for Beginners

Provided by

Great Learning Academy

(On August 2023)

To verify this certificate visit verify.mygreatlearning.com/iDRLZWOD



CERTIFICATE OF COMPLETION

Presented to

Vedang V. Wajge

For successfully completing a free online course
Python Fundamentals for Beginners

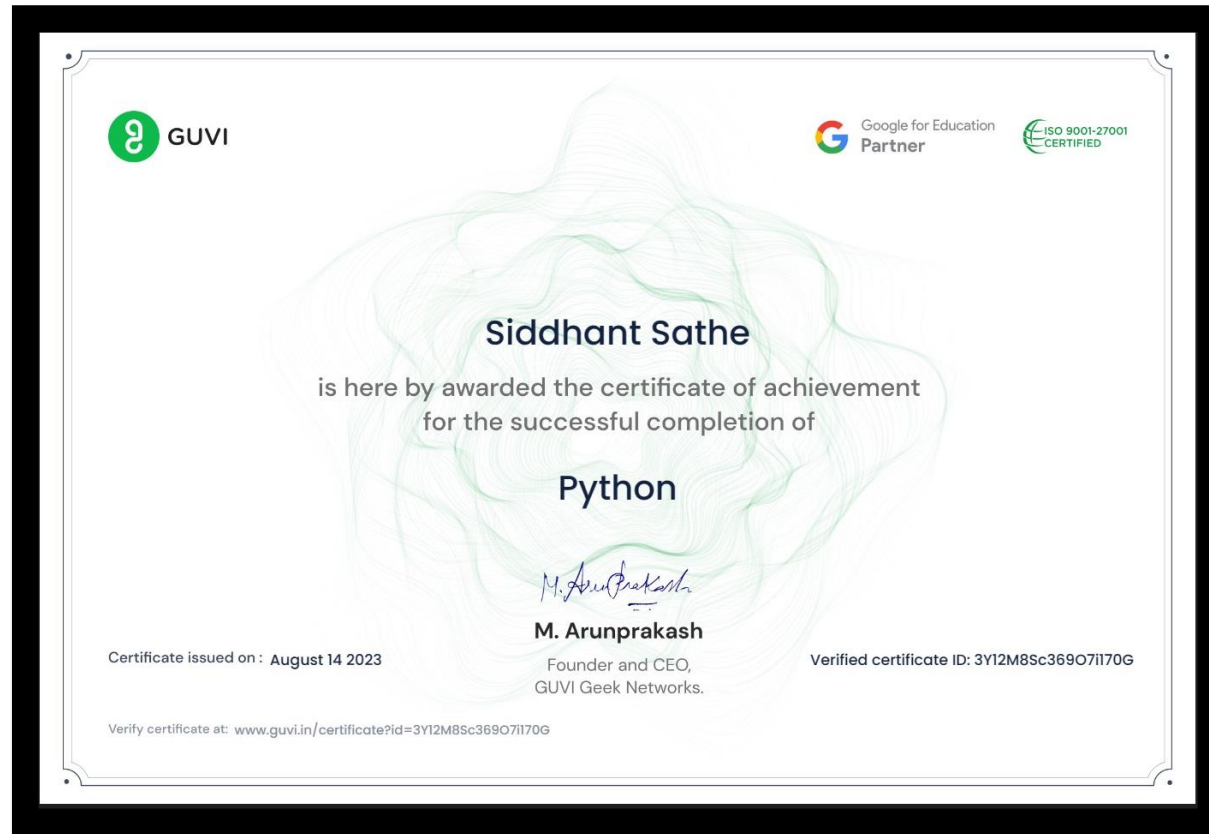
Provided by

Great Learning Academy

(On August 2023)

To verify this certificate visit verify.mygreatlearning.com/WIZWVSDK

CERTIFICATES



CERTIFICATES



FIGMA



FIREBASE