



Basic Details of the Team and Problem Statement

Ministry/Organization Name/Student Innovation:
International Council for Circular Economy (ICCE).

PS Code: SG864.

Problem Statement Title: Tracking, reducing and reusing of plastic waste.

Team Name: TEAM AMATEURS.

Team Leader Name: Arnab Chowdhury.

Institute Code (AISHE): C-6166.

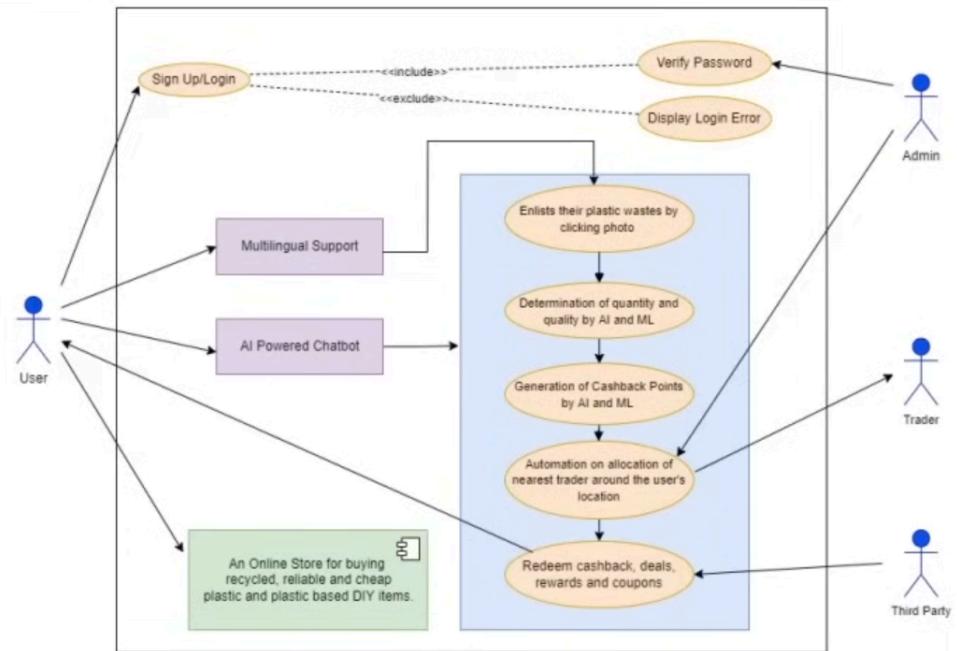
Institute Name: Guru Nanak Institute of Technology.

Theme Name: Clean and Green Technology.

Idea/Approach Details

We're looking for a solution by creating an **android** and **web**-based application that will serve as a platform for consumers to get rid of accumulated **plastic** and other **recyclable waste** at home while also benefiting technologically. The Prototype will function as follows:

- Identifying the **bio-degradable plastic** wastes through image screening using Artificial Intelligence (**AI**) and making them reusable.
- Users generate revenue in the form of **cashback points** by selling these bio-degradable plastic wastes.
- Generation of equivalent amount of cashback points according to the quality and quantity of plastic wastes through Machine Learning (**ML**) and Artificial Intelligence (**AI**).
- The nearest trader to the customer's location is assigned to collect the wastes through path optimization.
- **Cashback points** can be redeemed in various forms such as discounts, deals, coupons, and prizes that can be utilised in other third-party apps. It even includes coupons that will be used in transactions of **cryptocurrency** and **NFTs** in various trading apps.
- People can also purchase recycled products and other DIY items manufactured from reusable plastics both from our website and app at **cheaper** prices.



Technology stack:



Idea/Approach Details

Describe your Use Cases here

- Simply take a snapshot and send it to our platform if you have a certain amount of plastic waste at home.
- We can use AI and ML to assess the quality and quantity of plastic waste and generate cashback points based on that information.
- Through an **automation system** the model tracks the user's location and the nearest trader will be allocated to pick up the wastes.
- After selling the plastic garbage to the trader, the users get cashback points for redeeming attractive offers and prizes on third-party apps.
- One can also purchase **recycled plastic items** from the same platform.

Describe your Dependencies / Show stopper here

- A multilingual android and web based platform, based on **32 different languages**, which serves the term "Waste Management" – a proper and efficient structure
- Providing a **secure employment** to those vendors who had unstable sources of income and were collecting recyclables door-to-door.
- Automatic generation of cashback points according to the quality and quantity of plastic wastes through Machine Learning and Artificial Intelligence.
- Once a trader is allocated to a user, an **AI-powered** 24/7 hotline **chatbot** is available, as well as real-time tracking of the trader's location.
- By enabling an additional option to incorporate our platform at the end of their online bill, every e-commerce website will find it easier to recycle the plastics used in their product packaging.
- Users can donate a set amount towards the **planting of a tree** at the end of each purchase of recycled plastic items, the geographical location of which will be shared with the user later.