Ideation Phase
Brainstorm & Idea Prioritization Template

Team ID: LTVIP2025TMID44727

Project Name: CleanTech: Transforming Waste Management with Transfer Learning

Maximum Marks: 4 Marks

Brainstorm & Idea Prioritization Template:

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.
Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.
Reference: https://www.mural.co/templates/brainstorm-and-idea-prioritization

Step-1: Team Gathering, Collaboration and Select the Problem Statement

Our team identified the critical challenge in urban waste management: inefficient and manual waste segregation. After discussion, we selected the problem of building an AI-based system to classify waste images automatically into Biodegradable, Recyclable, or Trash categories.

Step-2: Brainstorm, Idea Listing and Grouping

Idea No.	Proposed Idea	Group/Theme
1	Use VGG16 pre-trained model for faster, accurate training	Transfer Learning
2	Deploy the model using Flask for local testing	Web Deployment
3	Design a clean and simple HTML UI for image uploads	Frontend Design
4	Include support for real-time prediction	User Interaction
5	Optimize training with early	Model Optimization

	stopping and dropout	
6	Use data augmentation to improve generalization	Data Handling

Step-3: Idea Prioritization

Priority	Idea Description	Justification
High	Use VGG16 pre-trained model	Ensures accuracy with less data and training time
High	Deploy with Flask	Enables quick testing and demonstration
Medium	Add real-time prediction support	Enhances usability
Low	Add multi-user login system	Useful but not essential for core functionality