

**Project Design Phase**  
**Problem – Solution Fit Template**

Date	29 June 2025
Team ID	LTVIP2025TMID44727
Project Name	<b>CleanTech: Transforming Waste Management with Transfer Learning</b>
Maximum Marks	2 Marks

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## Template

S.No.	Parameter	Details / Description
1	Customer Problem	Inefficient and inaccurate waste segregation leads to increased environmental pollution and higher processing costs.
2	Customer Behavior	Customers and waste management workers often manually sort waste, leading to errors and inconsistent categorization.
3	Proposed Solution	Implement a transfer learning-based image classification system that automatically and accurately classifies waste types (biodegradable, recyclable, trash).
4	Fit Between Problem & Solution	The solution automates and simplifies waste classification, aligning perfectly with the need to reduce manual errors and improve sorting speed.
5	Channels & Mediums	Web and mobile applications deployed to municipalities and waste management companies; integration with existing waste processing systems.
6	Value Proposition	Improved accuracy and efficiency in waste classification, reducing landfill waste, lowering costs, and promoting environmental sustainability.