CleanTech: Transforming Waste Management with Transfer Learning

Team ID: LTVIP2025TMID39058

Project Summary

The project 'CleanTech: Transforming Waste Management with Transfer Learning' involves building an image-based waste classification system. It uses transfer learning with MobileNetV2 to classify waste images into biodegradable, recyclable, and trash categories. The project follows an Agile approach and consists of data preparation, model training, and web deployment stages. This document outlines the backlog, sprint planning, project tracker, velocity, and burndown overview.

Product Backlog and Sprint Schedule

Sprint	Functionality	User Story	Description	Points	Priority
Sprint-1	Data Preparation	USN-1	Use splitfolders to split dataset	2	High
Sprint-1	Model Training	USN-2	Train MobileNetV2 with augmentation	3	High
Sprint-2	Evaluation	USN-3	Evaluate model accuracy, visualize plots	2	Medium
Sprint-2	Web Deployment	USN-4	Deploy model using Flask API	3	High
Sprint-3	Frontend UI	USN-5	Build UI for image upload and prediction	2	Medium

Project Tracker

Sprint	Total Points	Duration	Start Date	End Date	Completed	Release
Sprint-1	20	6 Days	01 Jun 2025	06 Jun 2025	20	06 Jun 2025
Sprint-2	20	6 Days	07 Jun 2025	12 Jun 2025	20	12 Jun 2025
Sprint-3	20	6 Days	13 Jun 2025	18 Jun 2025	20	18 Jun 2025

Velocity

Each sprint in this project spans 6 days and completes 20 story points.

Average velocity = Total Story Points / Duration = 20 / 6 = 3.33 story points per day.

Burndown Chart Overview

A burndown chart visualizes work remaining over time. It helps the team track progress towards sprint goals.

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This project completed all sprints on time, with consistent delivery of planned story points, resulting in a linear burndown trend.