Agile Sprint Planning & Velocity Summary

### Project Name: CleanTech: Transforming Waste Management with Transfer Learning

Team ID: PNT2022TMID45617  
Duration: 2 Sprints (24 Working Days Total)

## Agile Terminology (Quick Recap)

| **Term** | **Definition** |
| --- | --- |
| Sprint | A fixed period of time (typically 5–10 days) during which a development team works to complete a defined set of tasks. |
| Epic | A large body of work that cannot be completed in a single sprint; it is broken into smaller user stories. |
| Story | A small, manageable task that is part of an epic and can be completed within a sprint. |
| Story Point | A unit used to estimate the relative effort of a story. Typically based on the Fibonacci sequence (1, 2, 3, 5, etc.). |

## Sprint Breakdown & Task Estimation

### Sprint 1: Data Preparation (Duration: 5 Days)

Epic: Dataset Setup and Preprocessing

| **Task (Story)** | **Story Points** | **Description** |
| --- | --- | --- |
| Collection of Data | 2 | Sourcing and downloading dataset from Kaggle |
| Loading Data | 1 | Importing dataset into the working environment |
| Handling Missing Values | 3 | Detecting and managing incomplete or null values |
| Handling Categorical Values | 2 | Encoding labels for classification model |

### Sprint 2: Model Development & Deployment (Duration: 5 Days)

Epic: Model Creation and Web Deployment

| **Task (Story)** | **Story Points** | **Description** |
| --- | --- | --- |
| Model Building | 5 | Building the transfer learning model (e.g., VGG16) |
| Testing Model | 3 | Evaluating performance, confusion matrix, accuracy |
| Working HTML Pages | 3 | Creating UI for image upload and display of predictions |
| Flask Deployment | 5 | Integrating model with Flask and deploying on Heroku |

## Sprint Summary

| **Sprint** | **Focus Area** | **Total Story Points** |
| --- | --- | --- |
| Sprint 1 | Data Collection & Preprocessing | 8 |
| Sprint 2 | Model Building & Deployment | 16 |
| Total |  | 24 |

## Velocity Calculation

Velocity represents the average number of story points completed per sprint.  
It helps predict how much work the team can handle in future sprints.

Formula:  
Velocity = Total Story Points Completed / Number of Sprints

Values:  
Total Story Points = Sprint 1 (8) + Sprint 2 (16) = 24  
Number of Sprints = 2

Calculation:  
Velocity = 24 / 2 = 12 Story Points per Sprint

## Conclusion

* Your team’s velocity is 12 story points per sprint.
* Tasks were estimated realistically using story points.
* This estimation can guide future sprint planning and workload balancing.