

A Sprint fixed period or duration in which a team works to complete a set of tasks

An **Epic** is a **big task or project** that is too large to complete in one sprint. It is broken down into **smaller tasks (stories)** that can be completed over multiple sprints.

A **Story** is a small task . It is part of an **Epic**.

A **Story Point** is a number that represents how much effort a story takes to complete.
(usually in form of Fibonacci series)

- 1- Very Easy task
- 2- Easy task
- 3- Moderate task
- 5- Difficult task

Epic: Automated Classification of Pollen Grains

Goal: Develop a system to automatically classify pollen grains using machine learning.

Sprint 1 (5 Days): Data Preparation

1. Data Collection

Gather pollen grain images from databases or microscopy.

Story Points: 2

2. Loading Data

- Write scripts to load and organize images into a structured dataset.

- Story Points: 1

3. Data Preprocessing

- *Handling Missing Values*: Address incomplete or corrupted images.

- Story Points: 3

- *Handling Categorical Values*: Label pollen types consistently.

- Story Points: 2

Total Sprint 1 Story Points: 8

Sprint 2 (5 Days): Model Development & Deployment

1. Model Building

Train a CNN (e.g., ResNet) for pollen classification.

Story Points: 5

2. Testing Model

Evaluate accuracy, precision, and recall on a test set.

Story Points: 3

3. Deployment

Working HTML Pages: Create a UI for uploading images.

Story Points: 3

Flask Deployment: Build a backend API for predictions.

Story Points: 5

Total Sprint 2 Story Points: 16

Velocity Calculation

Total Story Points: 8 (Sprint 1) + 16 (Sprint 2) = 24

Number of Sprints: 2

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

Next Steps

Prioritize tasks for Sprint 3 (e.g., model optimization, user feedback integration).

Adjust future sprint capacities based on velocity (e.g., aim for ~12 points/sprint).

Key Risks:

Data quality (e.g., blurry pollen images).

Model bias toward dominant pollen types.