

Agile Sprint Planning and Estimation Document

1. Overview

A Sprint is a fixed period (in this case, 5 days) during which the team commits to completing a set of tasks. Tasks are organized into Epics, with each Epic further divided into smaller, manageable Stories. Each Story is estimated using Story Points based on effort, complexity, and time required.

2. Definitions

- **Sprint:**
A fixed duration during which a team works to complete a set of tasks.
 - **Epic:**
A large task or project that is too big to complete in one sprint. Epics are decomposed into smaller tasks called Stories.
 - **Story:**
A small, actionable task that is part of an Epic and can be completed within a sprint.
 - **Story Point:**
A unit of measurement (often using Fibonacci series: 1, 2, 3, 5, 8, etc.) that represents the effort required to complete a Story.
 - **Story Point Difficulty Mapping:**
 - 1 Point – Very Easy task
 - 2 Points – Easy task
 - 3 Points – Moderate task
 - 5+ Points – Difficult task
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3. Sprint Breakdown

Sprint 1 (5 Days): Data Collection & Preprocessing

Epic: Data Collection & Preprocessing

- **Collection of Data:**
 - Story Points: 2 (Easy)
- **Loading Data:**

- Story Points: 1 (Very Easy)
- **Handling Missing Values:**
 - Story Points: 3 (Moderate)
- **Handling Categorical Values:**
 - Story Points: 2 (Easy)

Total Story Points for Sprint 1 = 8

Sprint 2 (5 Days): Model Building & Deployment

Epic: Model Building & Deployment

- **Model Building:**
 - Story Points: 5 (Difficult)
- **Testing Model:**
 - Story Points: 3 (Moderate)
- **Working HTML Pages:**
 - Story Points: 3 (Moderate)
- **Flask Deployment:**
 - Story Points: 5 (Difficult)

Total Story Points for Sprint 2 = 16

4. Velocity Calculation

- **Definition:**

Velocity is the number of Story Points completed per Sprint and is used to gauge the team's productivity and predict future performance.
- **Calculation:**
 - Sprint 1 Story Points = 8
 - Sprint 2 Story Points = 16
 - **Total Story Points = 8 + 16 = 24**
 - **Number of Sprints = 2**

Velocity = Total Story Points ÷ Number of Sprints

Velocity = $24 \div 2 = 12$ Story Points/Sprint

Team Velocity: 12 Story Points per Sprint

5. Summary

- **Sprint Duration:** Each sprint lasts 5 days.
- **Total Story Points Completed:** 24 (across 2 sprints)
- **Average Team Velocity:** 12 Story Points per Sprint

This document serves as the baseline for sprint planning and estimation, and can be updated for subsequent sprints to track progress and adjust planning as need