**SmartHDLCI: AI Enhanced Development Lifecycle**

**📘 Basic Agile Concepts**

* **Sprint**: A fixed period or duration (e.g., 5 days) in which a team works to complete a set of tasks.
* **Epic**: A big task or feature too large to complete in one sprint. It is broken down into smaller Stories.
* **Story**: A small, manageable task that is part of an Epic.
* **Story Point**: A numerical value that represents the effort required to complete a Story (often using Fibonacci series).

📌**Story Point Examples:**

* **1** – Very Easy task
* **2** – Easy task
* **3** – Moderate task
* **5** – Difficult task

|  |  |
| --- | --- |
| **Task** | **Story Points** |
| Collect Software Requirements | 2 |
| Classify Functional Requirements | 1 |
| **Epic: Bug Detection Setup** |  |
| Task | Story Points |
| ------------------------------ | -------------- |
| Preprocessing Input Code | 3 |
| Identifying Common Bug Patterns | 2 |

✅**Total Story Points for Sprint 1**: **8**

**Sprint 2: (5 Days)**

**Epic: AI Code Generation and Deployment**

|  |  |
| --- | --- |
| **Task** | **Story Points** |
| Generate Code from User Input | 5 |
| Validate Generated Code Output | 3 |
| **Epic: UI + Backend Deployment** |  |
| Task | Story Points |
| ------------------------------ | -------------- |
| Design Stream lit Dashboard UI | 3 |
| Deploy with Streamlit & Ngrok | 5 |

✅**Total Story Points for Sprint 2**: **16**

**Velocity Calculation**

* **Total Story Points (All Sprints)** = 8 (Sprint 1) + 16 (Sprint 2) = **24**
* **Number of Sprints** = 2
* **Velocity** = Total Story Points ÷ Number of Sprints
* **Velocity = 24 ÷ 2 = 12 Story Points per Sprint**

🔁**Your team’s velocity is 12 Story Points per Sprint.**