### **Project Planning Phase**

### **Project Logic**

### **Agile Concepts :**

* **Sprint** – A fixed duration (5 days) in which the team works to complete a set of tasks.
* **Epic** – A large project or feature (e.g., Code Generator) that spans multiple tasks.
* **Story** – A small task that is part of an epic (e.g., Design UI for Code Generator).
* **Story Point** – Represents the effort required to complete a story, often using the Fibonacci series:
* 1 – Very Easy
* 2 – Easy
* 3 – Moderate
* 5 – Difficult

## **Sprint 1: (5 Days)**

### **Epic: Frontend & Authentication**

|  |  |
| --- | --- |
| **Task** | **Story Points** |
| Design UI for Login & Sign Up Page (Streamlit) | 2 |
| Implement User Authentication (Sign up/Login) | 3 |
| Integrate Forgot Password with Email OTP | 2 |

### **Epic: PDF Upload & Classification**

|  |  |
| --- | --- |
| **Task** | **Story Points** |
| Build Upload PDF UI | 1 |
| Backend logic to extract and classify content | 3 |
| Display SDLC Phase-wise classification results | 2 |

**Sprint 1 Total Story Points = 13**

## **Sprint 2: (5 Days)**

### **Epic: Code Generation & Test Generator**

|  |  |
| --- | --- |
| **Task** | **Story Points** |
| Build Code Generator UI | 1 |
| Connect backend to IBM Watsonx for code generation | 5 |
| Build Test Generator UI | 1 |
| Integrate AI Test Generation backend | 3 |

### **Epic: Bug Fixer & Summarizer**

|  |  |
| --- | --- |
| **Task** | **Story Points** |
| Upload code & display original | 1 |
| Fix bugs via Watsonx integration | 3 |
| Generate summary from uploaded code | 2 |

**Epic: Backend API**

|  |  |
| --- | --- |
| **Task** | **Story Points** |
| Set up FastAPI endpoints for all features | 5 |

**Sprint 2 Total Story Points = 21**

### **Summary :**

**Sprint 1 Total Points** = 13

**Sprint 2 Total Points** = 21

**Total Story Points** = 13 + 21 = **34**

**Number of Sprints** = 2

### ✅ Velocity = Total Story Points / No. of Sprints

Velocity = 34 / 2 = **17 Story Points per Sprint**