Day 3 Assignment-1

**Assignment 1: Agile Project Planning - Create a one-page project plan for a new software feature using Agile planning techniques. Include backlog items with estimated story points and a prioritized list of user stories.**

**One-Page Agile Project Plan: New Software Feature**

**Project Name: Real-Time Collaboration Feature for Document Editor**

**Objective**

Enable multiple users to collaboratively edit a document in real-time, improving teamwork and productivity.

**Backlog Items with Story Points**

| **Backlog Item** | **Story Points** |
| --- | --- |
| Design and implement real-time sync mechanism | 8 |
| Develop user presence indicators (avatars) | 5 |
| Build conflict resolution system | 8 |
| Create a user permissions module | 5 |
| Implement collaborative cursors (live pointers) | 5 |
| Write automated tests for real-time functionality | 3 |
| Conduct usability testing | 3 |
| Optimize server performance for real-time data | 8 |

**Prioritized User Stories**

1. **As a user**, I want to see who else is editing the document in real time so that I can collaborate effectively.
2. **As a user**, I want to see the changes made by others instantly so that the document stays up to date.
3. **As a user**, I want the system to resolve conflicting edits automatically to avoid overwriting others' work.
4. **As an admin**, I want to control who can edit the document to maintain privacy and security.
5. **As a user**, I want to view live pointers of other users to know what part of the document they are working on.
6. **As a developer**, I want automated tests to ensure the stability of real-time functionality.
7. **As a stakeholder**, I want the real-time collaboration feature to be performant for up to 50 concurrent users.

**Sprint Breakdown**

**Sprint 1 (2 Weeks)**

* **Goal:** Set up the foundation for real-time collaboration.
* Tasks: Design sync mechanism, basic live editing functionality, and conflict resolution system.

**Sprint 2 (2 Weeks)**

* **Goal:** Enhance user visibility and interaction.
* Tasks: Develop user presence indicators and collaborative cursors.

**Sprint 3 (2 Weeks)**

* **Goal:** Ensure functionality is robust and user-friendly.
* Tasks: Create a user permissions module, optimize server performance, and conduct usability testing.

**Success Metrics**

* <90ms latency for real-time edits with up to 50 users.
* Usability score of 8/10 from initial testers.
* 95% test coverage for the real-time feature module.