

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.

Ans:

Project Name: Library Management System Enhancement

Project Description:

Enhance the existing Library Management System to improve user experience, add new features, and address performance issues. The system allows librarians to manage books, borrowers, and transactions efficiently.

Agile Methodology: Scrum

Backlog Items:

1. User Authentication and Access Control
 - Implement user authentication for librarians and administrators
 - Define user roles (librarian, administrator) with appropriate access permissions
 - Allow librarians to reset their passwords
2. *Story Points Estimate: 5*
3. Search and Filter Functionality
 - Implement search functionality to find books by title, author, or category
 - Allow librarians to filter books by availability, genre, and publication year
 - Enable advanced search options with multiple criteria

4. *Story Points Estimate: 8*
5. Book Reservation System
 - Allow borrowers to reserve books that are currently checked out
 - Implement a reservation queue to manage multiple requests for the same book
 - Notify borrowers when reserved books become available for checkout
6. *Story Points Estimate: 13*
7. Fine Management System
 - Track overdue books and calculate fines based on predefined rules
 - Allow librarians to waive fines under certain circumstances
 - Send automated notifications to borrowers with overdue books
8. *Story Points Estimate: 8*
9. Reporting and Analytics
 - Generate reports on book circulation, popular genres, and borrower activity
 - Provide insights into library usage patterns and trends
 - Implement visualisations (charts, graphs) for data analysis
10. *Story Points Estimate: 13*
11. Performance Optimization
 - Identify and address performance bottlenecks in the system
 - Optimise database queries and improve response times
 - Conduct load testing to ensure scalability and reliability
12. *Story Points Estimate: 8*

Prioritized List of User Stories:

1. User Authentication and Access Control
2. Search and Filter Functionality
3. Book Reservation System
4. Fine Management System
5. Reporting and Analytics
6. Performance Optimization

This one-page project plan outlines the key features and user stories for enhancing the Library Management System using Agile planning techniques. Each backlog item

includes estimated story points, allowing for prioritization and planning of development efforts.