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.

Project Name: Enhanced User Authentication System

Objective: Implement a robust and user-friendly authentication system to enhance security and improve user experience.

Product Backlog

User Story 1: User Registration

Description: As a new user, I want to register with my email and a password, so I can create an account.

 Acceptance Criteria

- User can enter email and password.

- Email is validated for proper format.

- Password meets complexity requirements.

- Confirmation email is sent upon successful registration.

 Estimated Story Points: 5

User Story 2: Email Verification

Description: As a new user, I want to verify my email address, so I can activate my account.

Acceptance Criteria:

- User receives a verification email.

- Verification link in the email activates the account.

- System confirms email verification status.

Estimated Story Points: 3

User Story 3: Password Reset

Description: As a user, I want to reset my password if I forget it, so I can regain access to my account.

Acceptance Criteria:

- User can request a password reset.

- Password reset link is sent to the registered email.

- User can set a new password through the link.

- New password meets complexity requirements.

Estimated Story Points: 5

User Story 4: Two-Factor Authentication (2FA)

Description: As a user, I want to enable 2FA, so I can add an extra layer of security to my account.

Acceptance Criteria:

- User can enable 2FA via SMS or authenticator app.

- System sends a 2FA code for login attempts.

- User must enter the correct 2FA code to access their account.

Estimated Story Points: 8

User Story 5: Social Media Login

Description: As a user, I want to log in using my social media accounts (Google, Facebook), so I can quickly access my account without creating a new password.

Acceptance Criteria:

- User can select a social media login option.

- System integrates with social media APIs for authentication.

- Successful login redirects the user to their account dashboard.

Estimated Story Points: 8

Prioritized List of User Stories

1. User Registration (Story Points: 5)

2. Email Verification (Story Points: 3)

3. Password Reset (Story Points: 5)

4. Two-Factor Authentication (2FA) (Story Points: 8)

5. Social Media Login (Story Points: 8)

Sprint Planning

Sprint 1 (2 Weeks):

Goal: Implement basic user authentication features.

Planned User Stories:

  - User Registration (5 SP)

  - Email Verification (3 SP)

  - Password Reset (5 SP)

Sprint 2 (2 Weeks):

Goal: Enhance security features.

Planned User Stories:

  - Two-Factor Authentication (2FA) (8 SP)

Sprint 3 (2 Weeks):

Goal: Add convenience features.

Planned User Stories:

  - Social Media Login (8 SP)

Assignment 2: Daily Standup Simulation - Write a script for a Daily Standup meeting for a development team working on the software feature from Assignment 1. Address a common challenge and incorporate a solution into the communication flow.

Daily Standup Meeting Script for the Enhanced User Authentication System Team

Scrum Master (Mahesh):

Good morning, everyone! Let's get started with our daily standup. As usual, we'll go around and each share what we did yesterday, what we're planning to do today, and any blockers or challenges we're facing. Remember to keep it brief. I'll start with the updates and then we'll address a common challenge we're facing.

Mahesh (Scrum Master):

Yesterday, I coordinated with the security team to review the latest compliance requirements. Today, I'll finalize the documentation for the new API integrations. No blockers for me.

Sara (Frontend Developer):

Yesterday, I finished implementing the new login UI. Today, I'll be working on the password reset flow. I encountered an issue with the CSS framework causing layout issues on mobile. I'll need some assistance resolving this.

Lokesh (Backend Developer):

I completed the user session management module yesterday. Today, I'll integrate the two-factor authentication service. My blocker is related to the database schema; I need to discuss this with Emily.

Swathi (Database Administrator):

Yesterday, I optimized the database queries for the user lookup feature. Today, I'll address the database schema issues that David mentioned. I need to sync with the team to ensure we're all aligned on the schema changes.

Mike (QA Engineer):

Yesterday, I wrote test cases for the new login feature. Today, I'll start automated testing on the existing authentication flows. No blockers, but I'll need to discuss test coverage with the developers.

Mahesh (Scrum Master):

Thanks, everyone. Before we wrap up, I want to address a common challenge we're facing with the load times for the authentication API. Many of you have flagged this as a concern in our sprint reviews.

Solution Discussion

Mahesh (Scrum Master):

To tackle this, I suggest we implement a caching mechanism for the user authentication data. Caching can reduce load times significantly. David, could you lead this initiative?

Lokesh (Backend Developer):

Sure, John. We can use Redis for caching the user session data, which should alleviate the load on the database. I'll start drafting a plan for this and share it with the team by the end of today.

Mahesh (Scrum Master):

Great, thanks, David. Emily, can you assist David in ensuring the cached data stays consistent with our database?

Swathi (Database Administrator):

Absolutely, I'll work with David to set up a strategy for cache invalidation and data consistency.

Mahesh (Scrum Master):

Perfect. Sara, Mike, this will likely affect the frontend and testing, so please coordinate with David and Emily as needed.

Sara (Frontend Developer):

Got it, I'll adjust the frontend to handle possible cache-related delays.

Mike (QA Engineer):

I'll update our test cases to include scenarios for cache hits and misses.

Mahesh (Scrum Master):

Excellent. Let's aim to have a preliminary solution ready for our next sprint review. If there are no further updates, that concludes today's standup. Keep up the great work, everyone!

Team:

Thanks, Mahesh!

End of Meeting