

**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 prioritised list of user stories.**

**Ans:**

Feature: User Authentication System  
Objective: Implement a secure and user-friendly authentication system, including registration, login, and password recovery functionalities.

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**Product Backlog Items**

ID	User Story	Priority	Story Points
1	As a user, I want to register with my email and password so that I can create a new account.	High	5
2	As a user, I want to log in using my email and password so that I can access my account.	High	5
3	As a user, I want to recover my password if I forget it so that I can regain access to my account.	High	3
4	As a user, I want to be able to log out so that my account remains secure.	Medium	2
5	As a user, I want to receive email verification when I register so that my email is confirmed.	Medium	3
6	As a user, I want to be notified via email when there are security-related changes to my account (e.g., password changes) so that I am aware of these actions.	Medium	3
7	As a user, I want the option to enable two-factor authentication (2FA) so that my account is more secure.	Low	8
8	As a user, I want to be able to change my password from my account settings so that I can update it for security reasons.	Low	2

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## **Sprint Planning**

### **Sprint 1 (2 weeks)**

- User Stories:
  - ID 1: User registration (5 story points)
  - ID 2: User login (5 story points)
- Total Story Points: 10

### **Sprint 2 (2 weeks)**

- User Stories:
  - ID 3: Password recovery (3 story points)
  - ID 4: Logout functionality (2 story points)
  - ID 5: Email verification on registration (3 story points)
- Total Story Points: 8

### **Sprint 3 (2 weeks)**

- User Stories:
  - ID 6: Email notifications for security changes (3 story points)
  - ID 8: Change password in account settings (2 story points)
  - ID 7: Two-factor authentication (8 story points) [Partially, if time allows]
- Total Story Points: 13

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## **Prioritised List of User Stories**

1. High Priority:
  - User registration
  - User login
  - Password recovery
2. Medium Priority:
  - Logout functionality
  - Email verification
  - Email notifications for security changes
3. Low Priority:
  - Change password in account settings
  - Two-factor authentication (2FA)

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## Acceptance Criteria

- User Registration:
  - Users can register with email and password.
  - Successful registration sends a verification email.
- User Login:
  - Users can log in with email and password.
  - Invalid login attempts are handled with appropriate messages.
- Password Recovery:
  - Users can initiate password recovery via email.
  - Password reset link is valid for a limited time.
- Logout Functionality:
  - Users can log out from their account.
  - Post-logout, the user is redirected to the login page.
- Email Verification:
  - Verification email is sent upon registration.
  - User account is activated upon verification.
- Email Notifications:
  - Users receive notifications for security-related changes.
- Two-Factor Authentication:
  - Users can enable and configure 2FA.
  - 2FA prompts during login if enabled.
- Change Password:
  - Users can change their password from the account settings.
  - The change is confirmed via email notification.

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## Team Roles

- Product Owner: Defines and prioritises user stories.
- Scrum Master: Facilitates sprints and removes impediments.
- Development Team: Implements user stories and delivers increments.

**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**

Ans:

## Daily Standup Meeting Script

- Scrum Master (SM): Ranjeet
- Product Owner (PO): Ram
- Developer 1 (Dev1): Raj
- Developer 2 (Dev2): Raju
- Tester (QA): Ronit

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SM (Ranjeet): Good morning, team! Let's get started with our daily standup. We'll go around and each of you will share what you worked on yesterday, what you're working on today, and if you have any blockers. Let's keep it brief. Raj, let's start with you.

Dev1 (Raj): Morning! Yesterday, I completed the registration form UI and started integrating the backend API for user registration. Today, I'll focus on finishing that integration and start on the error handling for invalid inputs. No blockers so far.

SM (Ranjeet): Great progress, Raj. Raju, you're up next.

Dev2 (Raju): Hi, everyone. Yesterday, I set up the database schema for storing user information and began working on the password hashing mechanism. Today, I'll complete the password hashing and move on to implementing the user login endpoint. I'm having a bit of trouble with the bcrypt library for password hashing, though.

SM (Ranjeet): Thanks for the update, Raju. It sounds like a common challenge. Raj, you mentioned using bcrypt on a previous project. Can you assist Raju with this?

Dev1 (Raj): Sure thing, Ranjeet. Raju, let's sync up right after this meeting, and I'll help you sort out the bcrypt issues.

SM (Ranjeet): Perfect, thanks Raj. Ronit, your turn.

QA (Ronit): Good morning. Yesterday, I wrote test cases for the registration functionality and started testing the UI. Today, I'll focus on testing the backend API integration for user registration and start preparing test scenarios for the login feature. No blockers at the moment.

SM (Ranjeet): Excellent, Ronit. Ram, do you have any updates or concerns from the product side?

PO (Ram): Morning, everyone. Just a quick update: I've received feedback from a few stakeholders that the registration process needs to include a checkbox for terms and conditions. We'll need to add this to the requirements. No other issues from my end.

SM (Ranjeet): Thanks, Ram. Raj, can you add the terms and conditions checkbox to the registration form?

Dev1 (Raj): Will do, Ranjeet. I'll include that in today's tasks.

SM (Ranjeet): Fantastic. Before we wrap up, does anyone have any other concerns or need further assistance?

SM (Ranjeet): Great! So, to summarise:

- Raj will finish the registration API integration, handle error inputs, and add the terms and conditions checkbox.
- Raju will complete password hashing and start on the login endpoint, with Raj's help on bcrypt.
- Ronit will continue testing registration and prepare login test scenarios.
- Ram will update the requirements document to reflect the new registration checkbox.

Thanks, everyone! Let's have a productive day. If any blockers come up, don't hesitate to reach out. Meeting adjourned.