## Activity: Scrum Framework

### Product Backlog – Mobile banking application

**Scenario:**

Your team is developing a new mobile application for the banking sector. You are focused on delivering the secure log-in features in the current sprint. This feature will allow users to log in securely using a username, password, and multi-factor authentication. You need to ensure this feature is secure and user-friendly, which is critical to the app’s overall functionality.

As a project manager implementing Scrum, your task is to break down the secure login features into specific user stories, assign priority, and define acceptance criteria to ensure they deliver value.

**Step 1: Create user stories**

To complete this step, use the log-in feature descriptions below to create a user story for each feature.

1. Set up an authentication system (username and password)
2. Implement password encryption
3. Set up a “Forgot password” mechanism
4. Implement multi-factor authentication (MFA)

When creating user stories, remember that they typically follow the format: “As a [user], I want [feature] so that [benefit].”

| **ID** | **User Story**  **(“As a user….I want to…..so that…….”)** | **Priority** | **Acceptance criteria** |
| --- | --- | --- | --- |
| 1. Set up an authentication system (username and password) | As a user, I want to log into the app using my username and password to access my banking information securely. |  |  |
| 1. Implement password encryption | As a user, I want my password to be encrypted to keep my login information secure. |  |  |
| 1. Set up a “Forgot password” mechanism | As a user who forgets my password, I want to be able to reset it so that I can regain access to my account. |  |  |
| 1. Implement multi-factor authentication (MFA) | As a user, I want to log in using multi-factor authentication (MFA), which will add an additional layer of security to my account. |  |  |

**Step 2: List priority levels for each user story**

Once you’ve created the user stories for each of the log-in features, allocate a suitable priority rating to each feature based on the rationale below:

* **High Priority:** Critical for basic access and security; includes essential login functionality and password protection.
* **Medium Priority:** Important for user convenience and added security; can be added after core functionality.
* **Low Priority:** Nice-to-have features that enhance user experience and security but are not essential for initial app functionality.

| **ID** | **User Story**  **(“As a user….I want to…..so that…….”)** | **Priority** | **Acceptance criteria** |
| --- | --- | --- | --- |
| 1. Set up authentication system (username and password) | As a user, I want to log into the app using my username and password to access my banking information securely. | High |  |
| 1. Implement password encryption | As a user, I want my password to be encrypted to keep my login information secure. | High |  |
| 1. Set up a “Forgot password” mechanism | As a user who forgets my password, I want to be able to reset it so that I can regain access to my account. | Medium |  |
| 1. Implement multi-factor authentication (MFA) | As a user, I want to log in using multi-factor authentication (MFA), which will add an additional layer of security to my account. | Medium |  |

**Step 3: Determine the acceptance criteria for each user story**

To complete this step, briefly list the acceptance criteria for each user story.

Remember that acceptance criteria in Scrum are specific conditions that a user story must meet to be considered complete. They outline clear, testable requirements, helping the team understand when the work is done and ensuring the feature functions as expected.

| **ID** | **User Story**  **(“As a user….I want to…..so that…….”)** | **Priority** | **Acceptance criteria** |
| --- | --- | --- | --- |
| 1. Set up authentication system (username and password) | As a user, I want to log into the app using my username and password to access my banking information securely. | High | * User can enter username and password to log in. * Login form is responsive and functions across devices. * Error messages display when the username or password is incorrect. * Security checks verify that the password is encrypted in storage and during transmission. |
| 1. Implement password encryption | As a user, I want my password to be encrypted to keep my login information secure. | High | * Password is encrypted in both storage and transit. * Meets industry-standard encryption protocols. * Successful decryption allows user access without delay. |
| 1. Set up a “Forgot password” mechanism | As a user who forgets my password, I want to be able to reset it so that I can regain access to my account. | Medium | * “Forgot password” option is visible on the login screen. * Users receive an email or SMS with a link to reset their password. * Link expires after a set period for security. * User is prompted to create a new password following secure password guidelines. |
| 1. Implement multi-factor authentication (MFA) | As a user, I want to log in using multi-factor authentication (MFA), which will add an additional layer of security to my account. | Medium | * After entering a valid username and password, the user is prompted for MFA. * MFA options include SMS, email, or authenticator app. * User cannot access account until the correct MFA code is provided. * MFA settings are configurable in the user profile once logged in. |

**Step 4: Select sprint items**

Once the user stories have been completed, priority levels established, and acceptance criteria determined, use the information from the first three steps to select items for the sprint and plan how your team will deliver the secure login feature by the end of the sprint.

Start by listing your high-priority items and, in descending order, your medium and low-priority items.

**Example:**

For the first sprint, selecting the highest-priority items that provide core functionality for secure login, allowing for an incremental release that meets essential security needs, is ideal. Based on the priorities, the following user stories should be selected:

1. As a user, I want to log into the app using my username and password to access my banking information securely. **(High Priority)**
2. As a user, I want my password to be encrypted to keep my login information secure. **(High Priority)**
3. As a user who forgets my password, I want to be able to reset it so that I can regain access to my account. **(Medium Priority)**
4. As a user, I want to use multi-factor authentication (MFA) to log in so that my account has an additional layer of security. **(Medium Priority)**