# Scrum Framework

**Scrum** is an Agile framework delivering products iteratively through fixed-length **Sprints** (1-4 weeks). There are three main roles which are **Product Owner** (prioritizes requirements), **Scrum Master** (removes blockers), and **Developers**.

**PBIs (Product Backlog Items)** are user-centric work items in the **Product Backlog** usually relevant to features, bugs, and tasks, ordered by value. Each Sprint, the team selects PBIs for the **Sprint Backlog**, breaking them into tasks to build a shippable **Increment**. PBIs ensure focus on high-value outcomes, adapt to feedback, and align stakeholders. Refined continuously, they drive transparency, measurable progress, and sprint goals.

# PBIs

## Feature 1: User Authentication

### PBI 1：User Login by their account

* User story: As a user, I want to be able to login the system with my own account, so that I can experience all the features related to meetings and bookings
* Acceptance criteria:
  + Directing to login page without login session
    - Given that I am a user who has not logged into the system before,
    - When I want to directly access the dashboard of the system,
    - Then the login page with input fields of username and password will display, and a pop-up message "You need to login first" will appear.
  + Login Successfully
    - Given that I am an unlogged-in user who enters the correct username and password,
    - When I click the "Login" button,
    - Then the page should be navigated to the dashboard, with a successful login message "Success Login" appears on the screen.
  + Login with unregistered Email address
    - Given that I am an unlogged-in user who enters incorrect username and password,
    - When I click the "Login" button,
    - Then a red error message "The Email is not registered, Please Registered First!" below the "Login" button.
  + Empty fields
    - Given that I am an unlogged-in user and leave the email or password field empty,
    - When they click "Login" button,
    - Then the empty field borders turn red with a message "Field required" will appear.
  + Login with incorrect password
    - Given that I am an unlogged-in user who provided incorrect password,
    - When I click the "Login" button,
    - Then the Password input field borders turn red with a red error message "Incorrect password" will appear.

### PBI 2：User Password Forgotten

* User story: As a user who forgot my previous password, I want to reset it via email so I can regain access to my account
* Acceptance criteria:
  + Request to reset password
    - Given that I am a user who forget my password,
    - When I click the "Forgot Password?" link on the login page,
    - Then I will be redirected to the reset page with four input field which are Email Address, New Password, Confirm Password, and Check Code.
  + New password is same with old password:
    - Given that I am a user who enter a valid email address, new password, and same confirm password in the reset page,
    - When I click the button "Send Check Code",
    - Then a red error message "Current password is same with old one, no need to change" will; appear.
  + Successful password reset:
    - Given that I am a user who provide acceptable email address, new password, same confirm password and correct check code in the reset page,
    - When I click the button "Reset the Password",
    - Then I will be redirected to the login page, a successful reset message "Successful Reset" will appear.
  + Incorrect check code:
    - Given that I am a user who enter an incorrect check code in the reset page,
    - When I click the button "Reset the Password",
    - Then a red error message "Invalid Check Code" will appear.
  + Provide invalid email address
    - Given that I am a user who enter a unregistered email address in the reset page,
    - When I click the button "Send Check Code",
    - Then a red error message "Unregistered email address" will appear.

### PBI 3：User registry

* User story: As a new student, I want to register with my university ID, email, and password so I can access meeting booking functions.
* Acceptance criteria:
  + Request sign up
    - Given that I am a new user who want to do the registry,
    - When I click the link "Sign up now" on the login page,
    - Then I will be redirected to the registry page with four input field which are University ID, Email Address, Password, and Check Code.
  + Registry with duplicate university ID
    - Given that I am an unregistered user who provide a duplicate university ID that has already been registered,
    - When I click the button "Send Check Code",
    - Then a red error message "Account already be registered" will appear.
  + Registry with invalid email address
    - Given that I am an unregistered user who enter a invalid email address,
    - When I click the button "Send Check Code",
    - Then a red error message "Email address is invalid" will appear.
  + Registry with a duplicate email address
    - Given that I am an unregistered user who enter a email address that has already been registered,
    - When I click the button "Send Check Code",
    - Then a red error message "Email already be registered" will appear.
  + Registry with unacceptable password
    - Given that I am an unregistered user who provide a password that does not meet the password format requirement,
    - When I click the button "Send Check Code",
    - Then a red error message "Password is invalid" will appear.
  + Successful registration
    - Given that I am an unregistered user who provide acceptable university ID, email address, password, and correct check code,
    - When I click the button "Sign up",
    - Then I will be redirected to the login page, a successful message "Successful registration, the activation link has been sent to your email" will appear.

### PBI 4: User Activate the Email

* **User Story**: As a newly registered user, I want to activate my account via an email link to verify my identity.
* **Acceptance Criteria**:
  + **Activation link success**
    - Given that I am a user just finished registration and clicks the activation link in my email,
    - When the link is valid and unexpired,
    - Then I will be redirected to a confirmation page with "Account activated. You may now log in".
  + **Expired activation link**
    - Given that I am a user clicks an expired activation link,
    - When the page loads,
    - Then an error message "Activation link expired" will appear.
  + **Already activated account**
    - Given the user clicks an activation link for an already-activated account,
    - When the page loads,
    - Then a message "Account already activated" will appear.

## Feature 2: Search Rooms

### PBI 5: User Search Specific Room

* **User Story**: As a logged in student, I want to search for available rooms by name, capacity, or floors to book meetings efficiently.
* **Acceptance Criteria**:
  + **Search by room name**
    - Given that I am a logged-in user who enters a room name (e.g., "Conference Room A"),
    - When I click "Search" button,
    - Then all rooms matching the name will be listed.
  + **Filter by capacity**
    - Given that I am a logged-in user who selects a minimum capacity (e.g., "10 people"),
    - When I click "Search" button,
    - Then rooms with capacity ≥ 10 will be listed.
  + **Filter by features**
    - Given that I am a logged-in user who selects floors (e.g., 1st floor),
    - When I click "Search" button,
    - Then only rooms with all selected features are shown.
  + **Invalid search criteria**
    - Given the user enters invalid criteria (e.g., negative capacity),
    - When I click "Search" button,
    - Then an error "Invalid search criteria" appears, and fields turn red.
  + **No results found**
    - Given that I am a logged-in user who provide a search criteria that no room matches,
    - When I click "Search" button,
    - Then a message "No rooms found. Adjust your filters" will appear.
  + **Leave the search field empty**
    - Given that I am a logged-in user who leave the search field empty,
    - When I click the "Search" button,
    - Then all the rooms will be listed in the search page.

# Peer Review

# Self-review