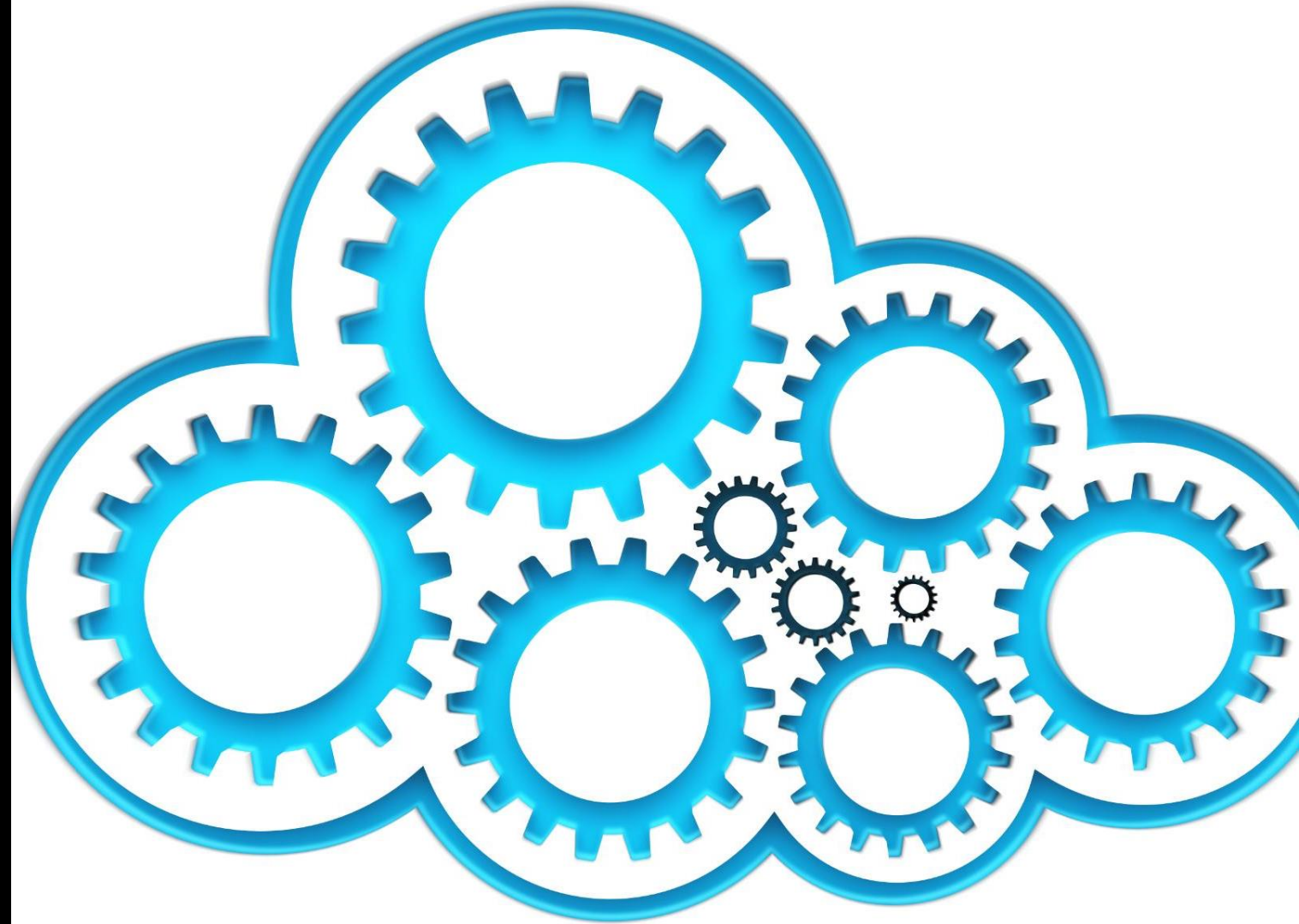


Use Cases



From User Stories to Use Cases



User Stories

User stories capture user needs in simple, concise statements focusing on the desired feature and benefit.

Use Cases Description

Use cases detail how users interact with the system to achieve goals with main, alternative, and exception flows.

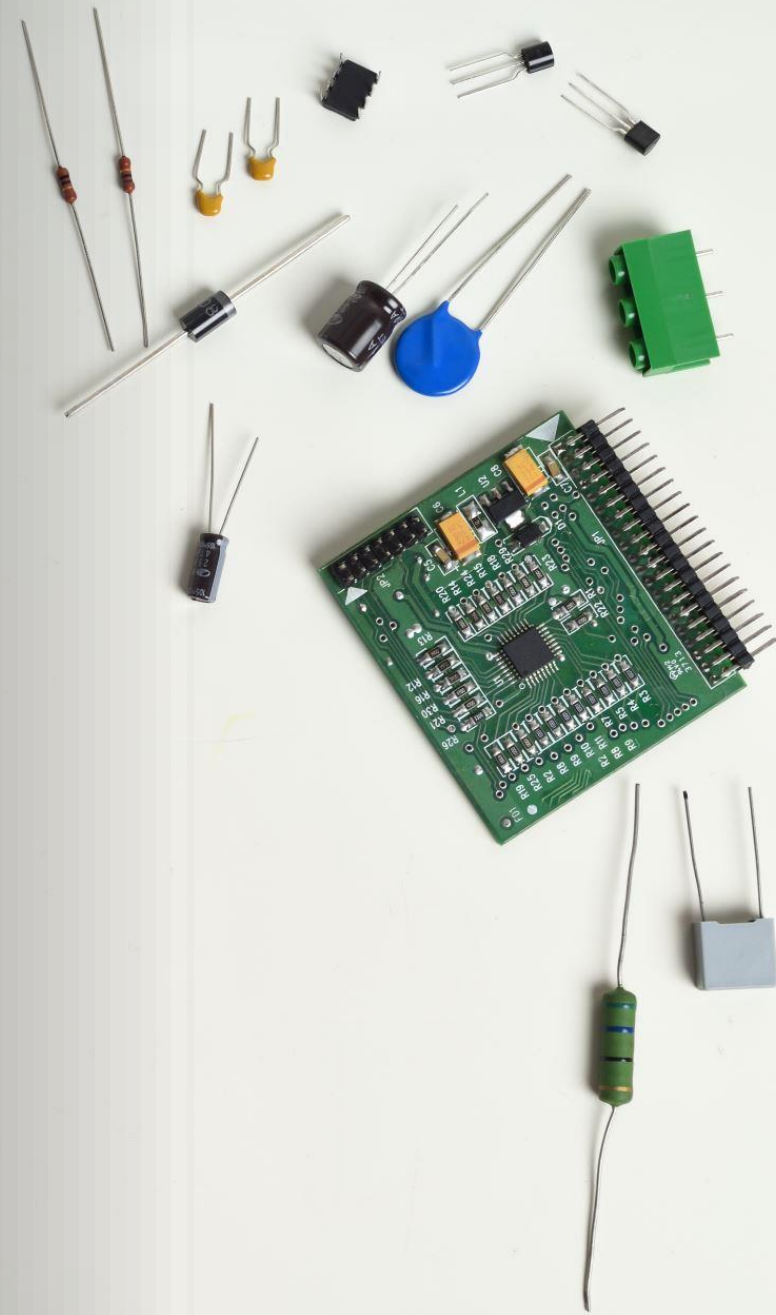
Transition Importance

Moving from user stories to use cases translates high-level requirements into detailed system design steps.

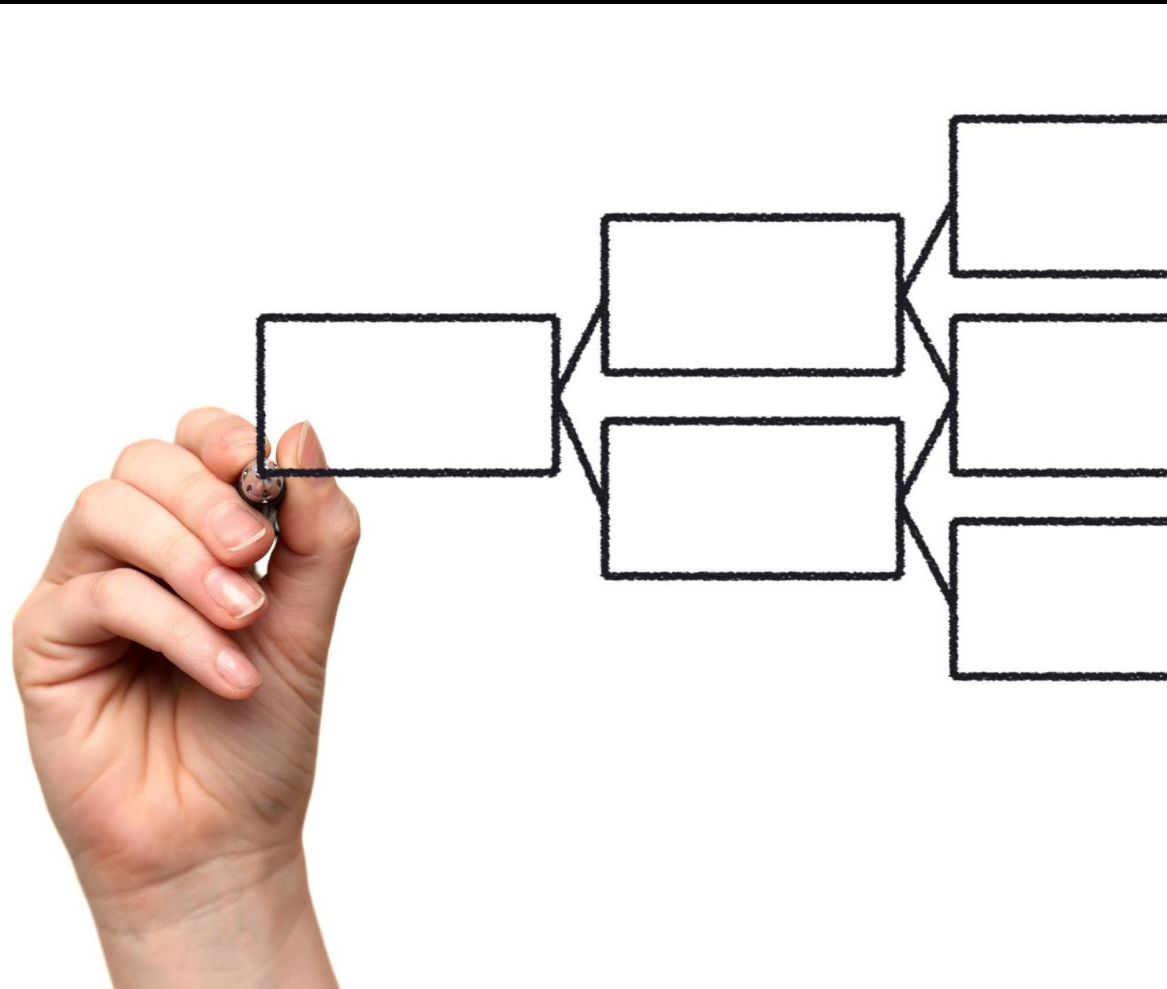
User Story vs. Use Case

FEATURE	USER STORY	USE CASE
Format	One sentence	Structured steps
Detail Level	High-level	Detailed
Purpose	Capture needs	Guide design, programming & testing
Audience	Stakeholders	Developers, testers

Components of a Use Case



Key Elements of a Use Case



Use Case Title

The title clearly defines the primary goal or purpose of the use case for easy identification.

Primary Actor and Preconditions


The primary actor initiates the use case; preconditions specify required states before execution.

Main Flow and Alternative Flows

Main flow details standard steps; alternative flows represent variations in the process.

Exception and Postconditions

Exception flows handle errors; postconditions define system state after use case completion.



Use Case

Example: Reset Forgotten Password





User story to use case

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

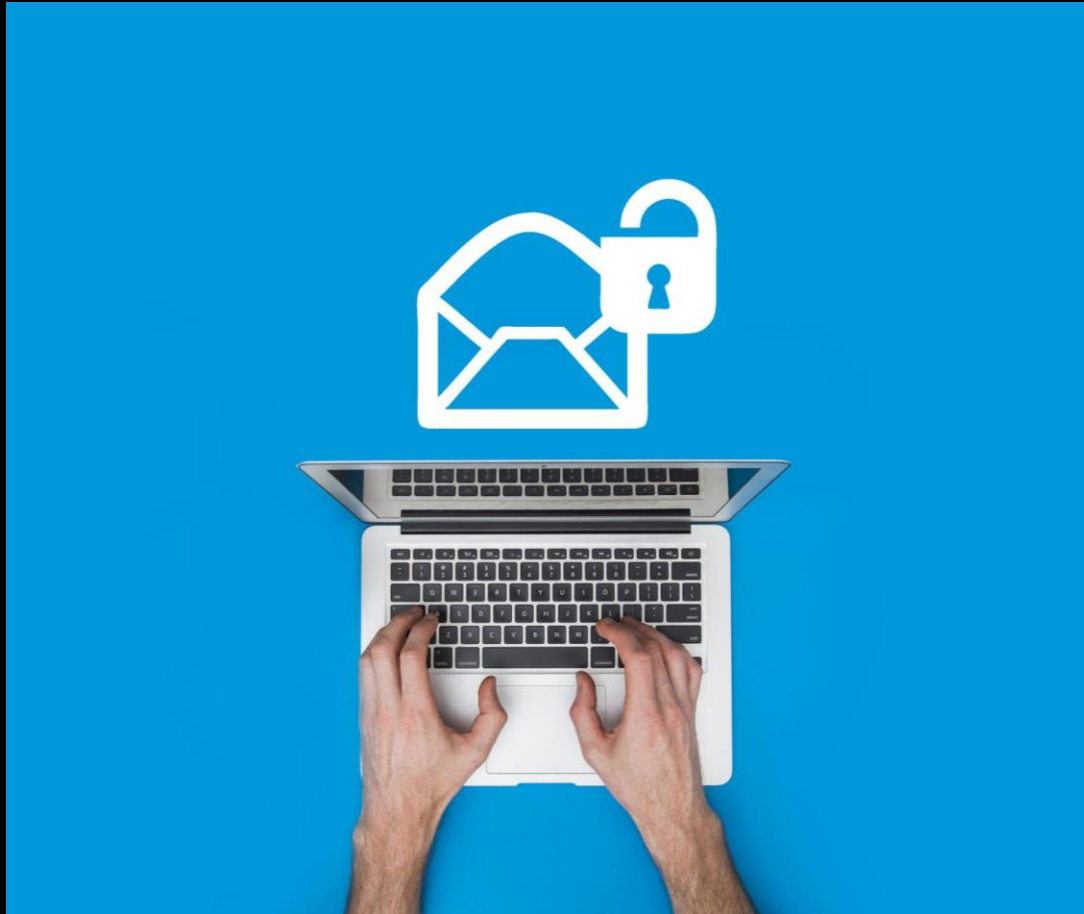
Purpose of Feature

Provides a common and essential functionality to recover access when a password is forgotten.

Use Case Relevance

Helps translate user needs into detailed application use cases for better software design.

Main Flow of Reset Forgotten Password



User Initiates Reset

The registered user starts the process by navigating to the login page and selecting 'Forgot Password'.

Email Verification

The user enters their registered email, triggering the system to send a password reset link for secure verification.

Password Reset Completion

User accesses the reset page from the link, inputs and confirms a new password, and receives success confirmation from the system.



Alternative and Exception Flows

Alternative Flows Overview

Alternative flows handle scenarios like unregistered emails or multiple reset requests to guide user interaction.

Exception Flows Handling

Exception flows manage issues such as email delivery failure, expired links, and invalid passwords to improve system robustness.

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

Title: Reset Password

Actor: Registered User

Preconditions:

- User has an existing account.
- User has access to the email associated with the account.

Main Flow:

- User clicks on "Forgot Password" link.
- System prompts for the registered email address.
- User enters their email.
- System sends a password reset link to the email.
- User clicks the link and is taken to a password reset page.
- User enters a new password and confirms it.
- System updates the password and confirms success.

Alternate Flows:

- Email is not registered → System displays an error message.
- Passwords do not match → System prompts user to re-enter.

Postconditions:

- User's password is updated.
- User can log in with the new password.

Why Use Cases Matter



Clarify Developer Requirements

Use cases provide clear requirements, helping developers understand user needs precisely.

Identify Edge Cases Early

They help find edge cases early in development to prevent future software issues.

Support Testing and Validation

Use cases guide testing processes, ensuring software meets user expectations and is reliable.

Improve Stakeholder Communication

They enhance communication between technical teams and stakeholders through clear scenarios.