

# Specifying ILIAS Requirements with Use Cases

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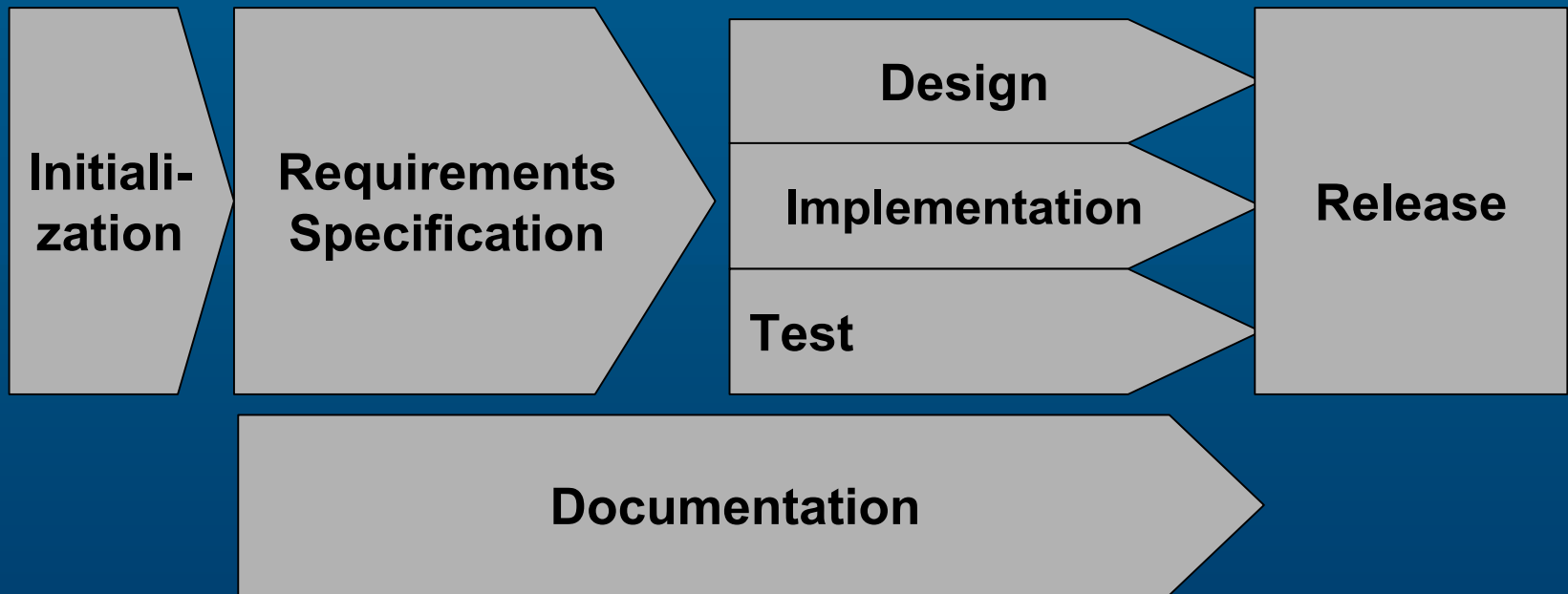
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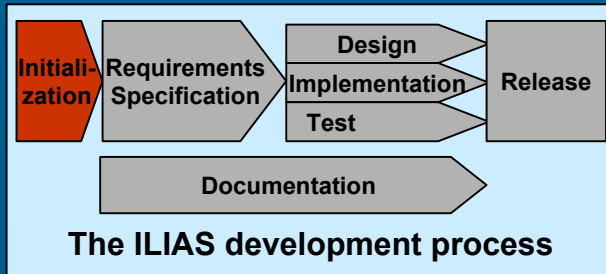
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## Presentation Objectives

- What is the ILIAS development process?
- How to initiate the development of new ILIAS features
- How to participate early in the development process
- How to specify requirements for new ILIAS features

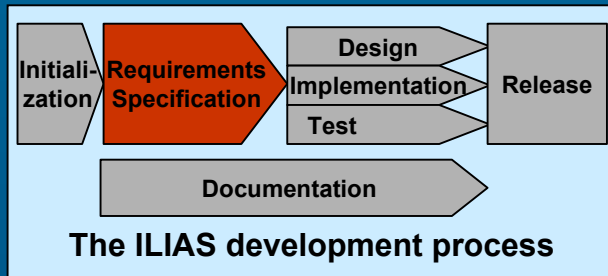
# What is the ILIAS Development Process?





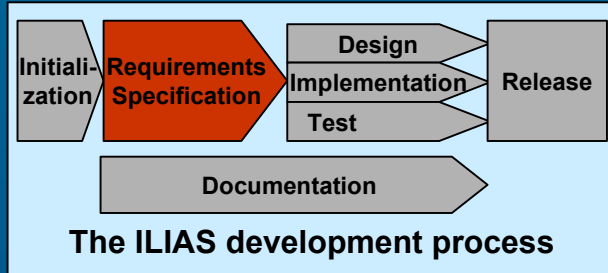
## How to initiate the development of a new ILIAS feature?

1. Check the ILIAS roadmap
2. Post your idea in the ILIAS forum
3. Get in contact with the ILIAS open source team



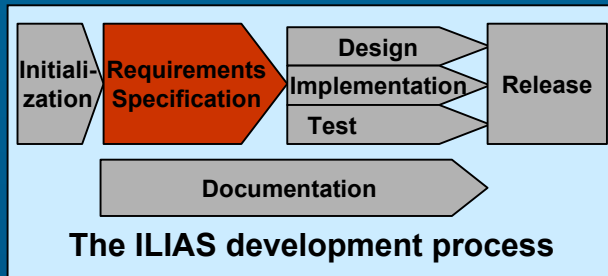
## Requirements Specification With Use Cases

- A **Use Case** describes the system's behaviour under various conditions as the system responds to the request of a user or another system
- Use cases are text-based and easy to understand and to write
- Use Cases serve additional purposes during the development process:
  - Can be used to generate test cases
  - Basic units in an iterative development process
  - Starting point for a user manual



## Actors and Goals

- A use case describes the interaction between a user and ILIAS
- The user who initiates this interaction with the system to accomplish a **certain goal** is called the **primary actor**
- **Procedure**
  - 1. Identify actors and their goals
  - 2. Write a use case for every goal



# Actor Goal List of the Digital Library

**Actors in the Digital Library use cases are Reader, Tutor and Librarian.**

## **Reader**

Reader searches for literature and saves the retrieved bibliographical information

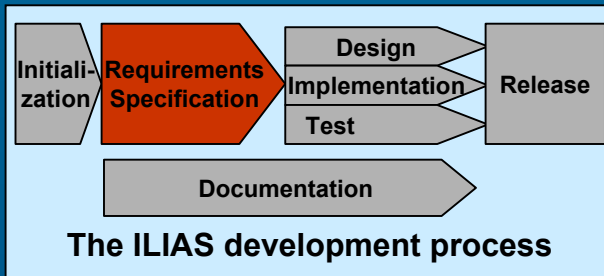
- Reader reads abstract
- Reader takes down personal notes while reading

## **Tutor**

- Tutor composes an online list of course readings
- Tutor administrates course readings group

## **Librarian**

- Librarian adds literature by XML import
- Librarian changes metadata
- Librarian adds a new taxonomy to the library



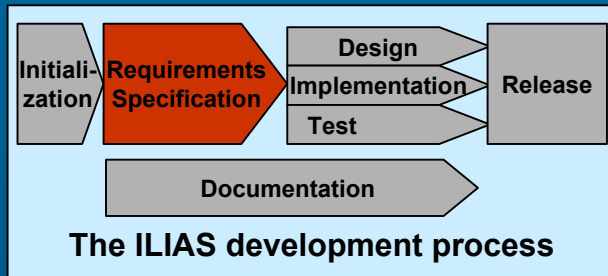
## How to write a Use Case?

### Format template for writing use cases

#### Title of the Use Case

- Primary Actor
- Brief Description of Context and Goal
- Trigger
- Preconditions
- Postconditions
- Main Success Scenario
- Extensions





## What do Use Cases look like?

**Title:** Reader searches for literature and saves the retrieved bibliographical information

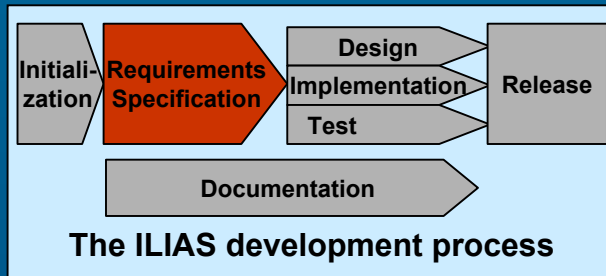
**Primary Actor:** Reader

**Brief Description of Context and Goal:** Reader searches for literature and saves the search results.

**Preconditions:** Reader is logged onto ILIAS and has entered the Digital Library module.

**Trigger:** Reader wants to find some literature for her thesis.

**Postconditions:** Reader has looked up one or more keywords. She has chosen some items from the result list presented by ILIAS search engine. She saves the chosen bibliographical information in her personal literature administration tool.

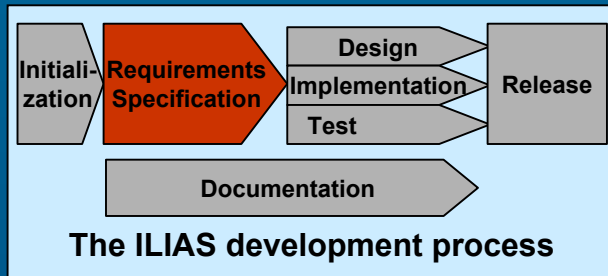


## How to write a Use Case?

### Format template for writing use cases

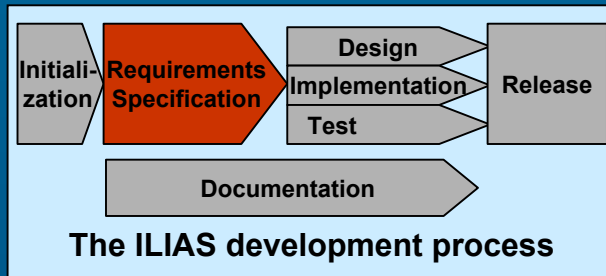
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## What Are Use Case Scenarios?

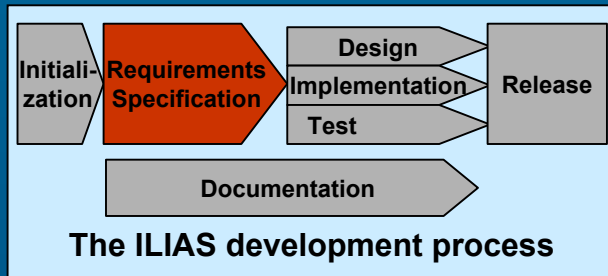
- A Use Case collects all scenarios that may occur when an actor tries to accomplish a certain goal
- Each scenario contains a sequence of steps showing the interaction between the primary actor and the system
- The **Main Success Scenario** is a first top-to-bottom description of an easy-to-understand and fairly typical scenario of the Use Case
- All other alternative scenarios are specified in **Extensions**



## What do Main Success Scenarios look like?

### Main Success Scenario:

1. Reader chooses ,search for literature' activity.
2. ILIAS starts search engine and displays the search template.
3. Reader types in keywords of interest and presses ,submit' button.  
She may use Boolean algebra
4. ILIAS displays search results in a list. Result list contains same information as a catalogue entry.
5. Reader chooses literature items from the search results list by checkboxes.
6. Reader chooses ,save bibliographical information' activity.
7. Reader selects destination folder in personal literature administration.
8. ILIAS saves chosen list items in Readers selected folder in personal literature administration.



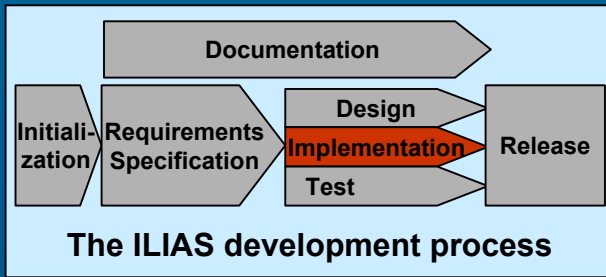
## What do Extensions look like?

### Extension:

4a. ILIAS didn't find any matching literature items

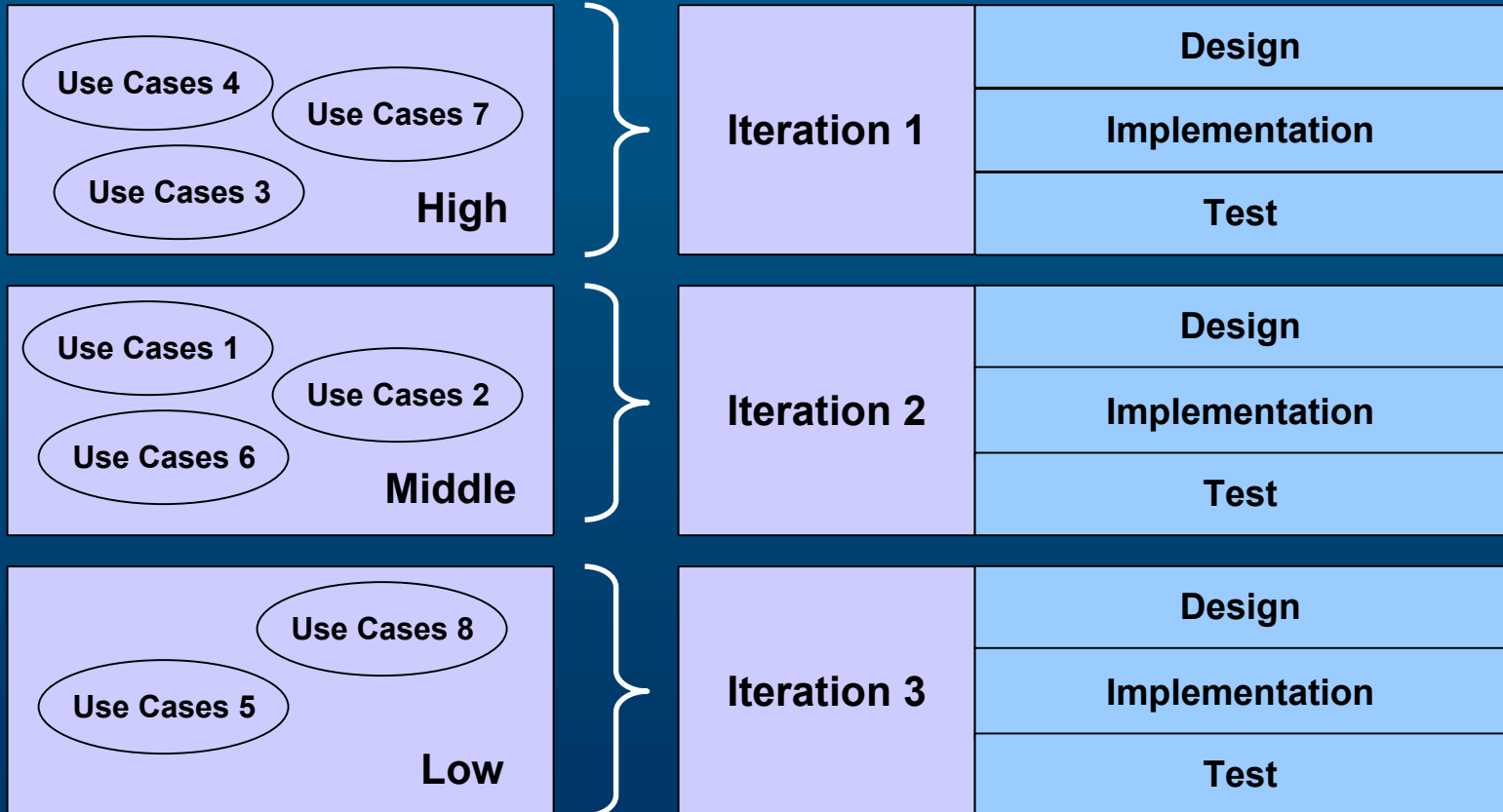
4a.1. ILIAS displays a message that no items have been found

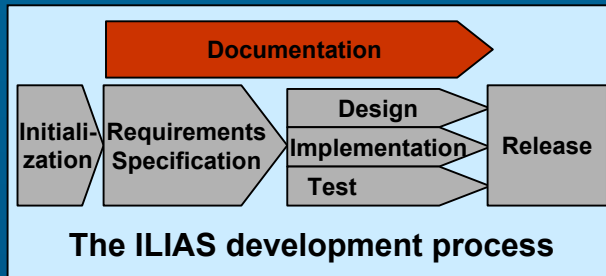
4a.2. Reader enters keywords again (go to step 2.)



# Iterative development with Use Cases

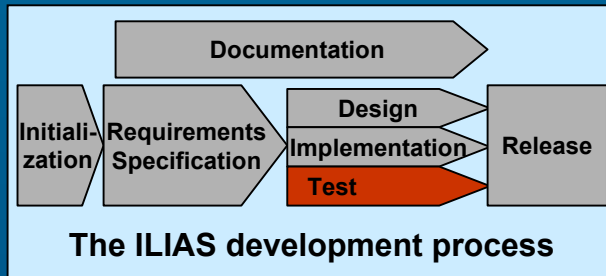
## Prioritisation





## Documentation

- Documentation is yet another purpose of Use Cases.
- The user documentation can be easily derived from the use cases.
- Since the cases are a description of user and system behaviour it is just a little text revision to obtain a complete user documentation.
- You can obtain a full user documentation by adding screen shoots of the most important screens.



## Testing

- Use Cases are also used as a means for acceptance tests: The system should be able to conform to all use cases. The system should behave exactly as specified in the use cases.
- So when testing you can easily work step by step through your use cases.



**Thank you**