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# **Knowledge Management Intranet System**

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## **Knowledge Management Intranet System Elaboration Iteration Plan**

**Version 1.1**

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Elaboration Iteration Plan	Date: 2000-11-23
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## Revision History

Date	Version	Description	Author
13 Nov 00	1.0	Creation	Andreas Herfert
23 Nov 00	1.1	6.3 added and 4.1 updated	Andreas Herfert

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## 1. Objectives

This Iteration Plan describes the detailed plans for the Elaboration phase of the Hydra project. The objectives with the Elaboration phase in general are to make architecture and design models for the system. These models will then be the bases for the Construction phase work, so that this will be dividable into smaller programming tasks and so that the programmer might concentrate on pure programming issues.

## 2. Scope

The Elaboration Iteration Plan applies to the Hydra project being developed by Group 7. This document will be used by the Project Manager and by the project team.

## 3. Plan

The Elaboration phase will be divided into two iterations:

?? Elaboration #1 13/11-2000 – 27/11-2000  
 ?? Elaboration #2 27/11-2000 – 22/12-2000

In E #1 Use Cases step 2 and Database model step 1-3 will be made. In E #2 Use Cases step 3, Design model and possible prototypes will be made. Someone will also work with the Database model step 4 and the System model.

This means that we will make *Use Cases* (step 2 and 3), a *database model* (step 1-3 as elaborations within the database course), a *design model* (package and class hierarchy in UML) and a *system model* (hardware/software to be used).

We could also do *minor prototypes* realizing parts of the system and thereby verifying that a possible solution really works (lab within Riboe course). This will work as risk elimination, e.g. a simple solution for the login function.

### 3.1 Iteration Activities

The following table illustrates the high level activities with their planned start and end dates.

Activity	Start Date	End Date
Use Cases step 2	20/11-2000	4/12-2000
Use Cases step 3	4/12-2000	22/12-2000
Design model	28/11-2000	22/12-2000
Database model step 1	13/11-2000	27/11-2000
Database model step 2	13/11-2000	27/11-2000
Database model step 3	28/11-2000	22/12-2000
System model step 1	13/11-2000	27/11-2000
System model step 2	28/11-2000	22/12-2000
System model step 3	28/11-2000	22/12-2000
(Prototypes)	28/11-2000	22/12-2000

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### 3.2 Iteration Deliverables

The following deliverables will be generated and reviewed during the Elaboration:

Process	Deliverable	Responsible Owner
Use Case model	Use Case model (Rational Rose) Use Case specifications (Requisite Pro)	Michael Karén
Database model	Database model (Paper document that the responsible owner will add to a file in an optional format.)	Lennart Henriksson Madeleine Ödquist
Design model	UML model (Rational Rose)	Peter Eriksson
System model	Optional format and tools	Lennart Henriksson Madeleine Ödquist
Prototypes	Java packages / jar-files	Andreas Herfert
Meeting protocols and additional documents	Protocols, Status reports, Construction Iteration Plan (MS Word)	Andreas Herfert
Definitions	Glossary updates (Requisite Pro)	Elham Sepehri

These will be based on the contents of the following Inception artifacts:

Artifact	Description	Responsible Owner
Vision	The most general document. Like an ordinary project report with scope, goals, features etc	Andreas Herfert
Glossary	Explains and defines concepts	Elham Sepehri
Risk list	A list of things that might cause trouble and delay the success of the project. Will be prioritized and could also state what measures will be taken if a risk would really occur.	Andreas Herfert
Use Case specification	Use Cases, step 1	Michael Karén
Supplementary specification	Contains non-functional requirements	Andreas Herfert
Test plan	Constitutes how a test should be done and how it should be reported.	Lennart Henriksson

The documents from the Inception phase will also be updated with knowledge gained further on. That is the task of the staff.

All reports should be sent to the responsible owner.

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#### 4. Resources

<i>Knowledge</i>	<i>Superadmin/Login</i>	<i>UI</i>	<i>Database</i>
Peter E	Ellie	Michael	Madeleine
Nicklas	Tommy	Andreas	Lennart
Urban	Peter P		Helena
Kjell			

#### 4.1 Tasks

Every team is to make Use Cases, to model the database, to make a design and to build possible prototypes, for their specific part of the system.

A person that has participated in Anca's course is "head" of the team and calls meetings etc. These are the names in italic style in the list above.

This means that the staff members will have multiple roles like this:

<b>Name</b>	<b>Team leader for</b>	<b>Responsibility area</b>
Andreas	---	Vision, Risk list, Supplementary spec, Iteration Plans, Archive
Michael	User Interface	Use Case model
Peter E	Knowledge	Design model
Ellie	Superadmin/Login	Glossary, Vision
Lennart	---	Test plan, System model, Database model
Madeleine	Database	System model, Database model

These teams will work together up to Christmas, then I'm considering that we'll change the constitution if it seems more appropriate.

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## 5. Evaluation Criteria

All artifacts should be commented and/or approved by the customer, Flow, before the Construction phase will be launched.

The entire group should approve the documents at a Project meeting.

The success criterion is that it will be possible to construct a product based on these artifacts.

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## 6. Workflows

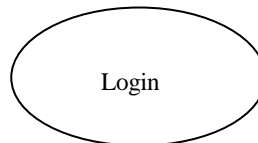
### 6.1 Workflow Use Cases

#### 6.1.1 Step 1

Step 1 is to examine the requirements specified in the Vision and the Supplementary specification and try to find Use Cases applicable to the systems functionality. E.g. login, add knowledge, view user home page.

You do a sketch of all possible Use Cases, but you don't fill them with anything yet.

Michael and Ellie handle this step.

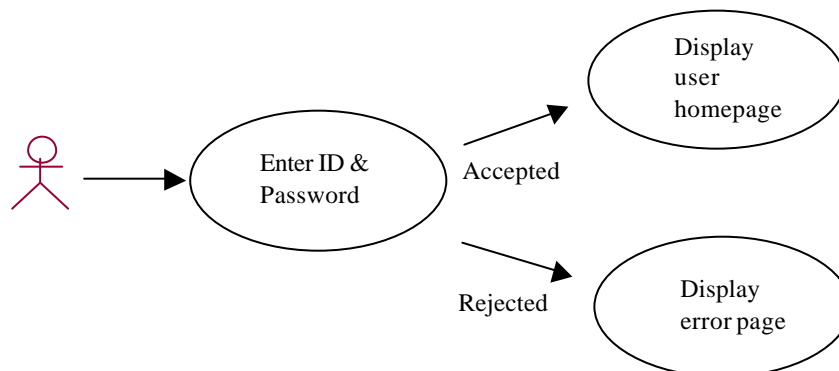


#### 6.1.2 Step 2

Step 2 uses the Use Cases that we have found in step 1 and fills them with contents. Each team works with the cases applicable to their part of the system.

The content is to find Actors (who is executing the case) and the steps that the case consists of.

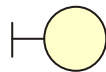
Ex



You will also create a Sequence diagrams for each Use Case. Here you will have to find the objects that are interacting with each other. These can be one of following four types:



Actor



Boundary



Control



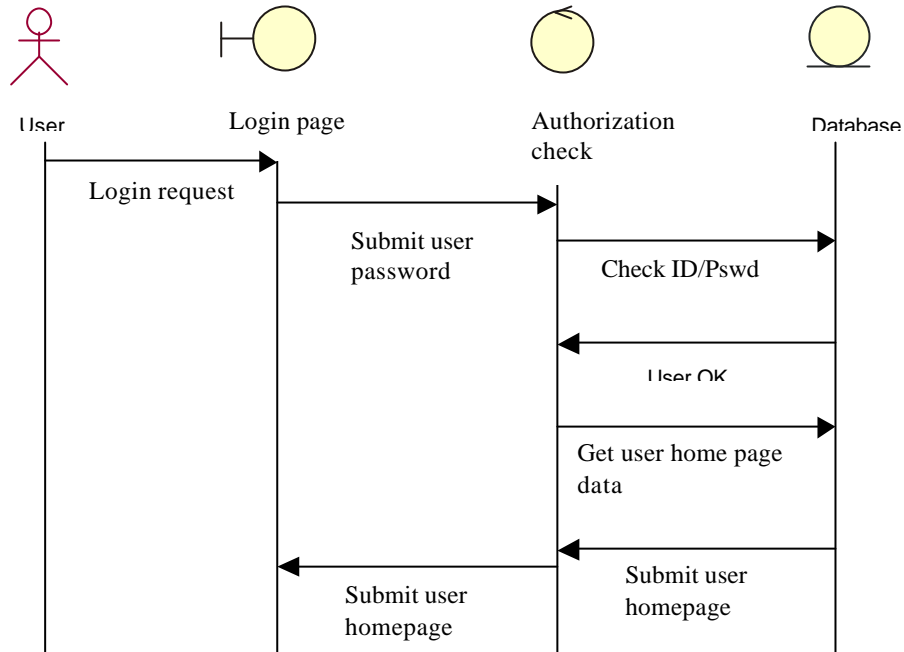
Entity

Boundary describes an interface between the system and an Actor, e.g. a html page. Control is an object handling the logic of the system, e.g. a servlet. Entities are system resources, such as a database.

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In the Sequence diagram you try to figure out which types of objects that will communicate in the use case and the flow between them. You don't take any notice of how each object will be implemented in step 2 (as servlet, bean or jsp for a Control) but only which type it is and the name of the object.

Ex



It is important not to go too deep at this stage. Try to keep it on an abstract level.

### 6.1.3 Step 3

Step 3 means that you finally goes deeply into each Use Case and starts to get close to a sketch of the actual implementation.

You switch the symbols in the Use Case against symbols representing web pages, servlets, jsp, the database etc.

In the Sequence diagram you will decide exactly what each object should be represented with (a html page, a jsp, a bean etc) and name the method (and add parameters) by the arrows.

This will be the base for the creation of the design model, where you transform the Use Cases to classes, interfaces, beans and other Java objects.

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## 6.2 Workflow Database model

Since we probably will work only with a limited part of the db in the steps 2-4 (the part corresponding to de responsibility of your the team), some has to check so that multiple groups don't create the same table. If you are aware of a table outside your part of the system that you will need, try to incorporate it in a nice way, perhaps as a cloud.

### 6.2.1 Step 1

Step 1 is to do a conceptual analysis of the entire system. You try to find the objects relevant and definitions of theses objects. What do they stand for? What will they contain?

### 6.2.2 Step 2

Step 2 is modeling the relations between the different objects. Defining the tables and their columns is also necessary.

### 6.2.3 Step 3

Step 3 is to normalize the model to Boyce-Codd level (relational objects). You often do Boyce-Codd directly in step 2. Of course the tables will change since it is in them you will discover if something needs to be normalized.

### 6.2.4 Step 4

Step 4 is to implement the physical database with tables, indices, views etc.

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### 6.3 System architects workflow

#### 6.3.1 Step 1

The system architects will implement and test an application server, a web server, a mail server, a DNS server and a firewall.

Produce a DSDM model, i.e.:

?? Time boxing

?? Priority list according to MOSCOW

?? Sponsor (who is investing, who is in charge, should be a member of the project team, i.e. Anette Svensson)

?? Ambassador (the end-user, i.e. Flow)

?? Risk assessment of the activities (that will probably not work should be done first)

?? Prototype, i.e. a model or sketch over what to do, comparisons of different standards to show sponsors and ambassadors. Is it possible to do? The prototype should assist in answering this question. There are three different prototypes to produce (according to DSDM):

1. Business – shows how the prototype works
2. Usability – examines aspects of user interface that doesn't affect the functionality.
3. Performance/Capacity/Technique – will ensure that the system will manage maximum load

#### 6.3.2 Step 2

When the system architects have produced products according to their opinion of the best solution for the project, the compatibility between the products must be checked

Multi-tier classification

**Level 1** – Hardware platform and network security

**Level 2** – Software platform and network security

**Level 3** – Network and prototypes

**Level 4** – Application and transaction security

The system architects are responsible for level 1-3.

The programmers are responsible for level 4.

#### 6.3.3 Step 3

Connection of the computers between the two lab rooms. Setup of all software on the computers and making sure that everything is running properly before the programming work starts.

#### 6.3.4 Step 4

Implementation of the database.