

Requirements specification based contracts

Contracted-based Development

Fall 2016

Cphbusiness

Assignment #1

Requirement specification based contract

Time schedule

Hand out:	Friday 28/10
Sending contract:	Sunday 30/10 not later than 24:00
Sending fulfillment and evaluation:	Thursday 3/10 not later than 24:00

Estimated work effort:

Creating contract as sender:	not less than 4 work hour's pr. student
Evaluation of contract (as receiver):	not less than 4 work hour's pr. student

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Introduction

In this first assignment you shall work with requirements specifications as contracts.

Your work will be based on a handed out case story. Because of time constraints you will not create a full requirement specification contract but only an overall specification of the full system and a detailed description of one of the systems use cases.

In this assignment the receiver will NOT implement your contract. They will give an exhaustive evaluation of the contracts contract-technical quality. In other words, they will evaluate whether the contract is sufficient to start implementation of the use-case described in details and if not send back an 'request for clarification'.

Purpose

It is the purpose of this assignment that you

- as sender of a contract experience how hard it is to express requirements in a written contract
- as receiver experience how hard it is to understand requirements in a written contract

Bases on this experience we expect that you have improved your skills in creating this kind of contract.

Philosophy

The philosophy of this assignment is that:

- it is a big challenge to change a -for some of you well known- requirement specification into a document of requirement qualities
- there will be a lot at learning gained from creating even a small requirement specification contract because the large scale problems also exists in the small contract

Important

It is important that you accept that the document you send as a contract should be based on the case story (see below).

It is NOT crucial that it reflects the case-story 100%. The contract therefor DOES NOT have to be correct and complete.

It is crucial that the contract is consistent and unambiguous.

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Said in other words:

- You can leave out requirement from the case story
- You can make you own interpretation of the case story if needed
- You shall hand over a contract without conflicting requirements (consistent)
- You shall hand over a contract that do not force or leave room for different interpretations (unambiguous)

Proposed template for the contract (what you send Sunday)

You can get inspiration in the slides and your previous template designs.

My recommend minimum contract has the following outline:

- 1) Introduction
 - a. A brief introduction to the document (5 – 10 lines)
- 2) Vision
 - a. General description of the systems in text
 - b. General description of the purpose of the system
- 3) Use case model
 - a. Use case diagram
 - b. Brief use case descriptions for all use cases
 - c. Actor descriptions for all actors
- 4) Domain model
 - a. A class diagram representation the domain
 - b. A text description of the domain model
- 5) Non-functional requirement for the system
- 6) Fully dressed use case description for ONE use case (we do not have time to do it all)
 - a. Use template for fully dressed use case descriptions
 - b. Add illustrative scenario and/or mock-ups IF you think that would help the receiver to understand the contract

Proposed content of evaluation (what you return Thursday)

When you receive a contract you shall make an evaluation of the contract.

The intention of the contract was that you had enough information to start implementing (programming) the use case that is fully dressed in the contract. Your evaluation should consider if this is possible.

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What you send back as a minimum evaluation if the following:

- 1) General evaluation of the contract
 - a. Was the contract easy to read?
 - b. What was good?
 - c. What was not that good?
 - d. What was in general missing?
- 2) Contradiction
 - a. List of element that you found was contradictory in the contract
 - i. Please be explicit about the contradiction
- 3) Ambiguity
 - a. List of element that you found was ambiguous
 - i. Please be explicit about possible interpretations is any
- 4) Summing up
 - a. General requests for improvements
 - b. Full list of 'requests for clarification' as question that needs answers before you can implement the contract (start to program it).

Do not forget

- Do not send after deadlines – other students are dependent on you!
- Create the contract as good as you can and please remember that contract quality of a requirements specification contract need to be higher than the quality of a requirement specification you create and use yourself
- When you evaluate please be hard but fair.
 - Be hard because the sender of the contract need to get response about missing parts.
 - Be fair because the time the sender have had to create the contract is limited.

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Case story:

Introduction:

You should use the following case story to create a requirement specification contract. Please remember that your contract does not need to be 100% complete and correct reflection of the Case. Also remember that there might be contradictions or/and ambiguity in the case story, but there must NOT be contradictions and/or ambiguity in your requirement specification contract.

The case story:

See the three handouts.