

Lecture Requirements Engineering

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Abstract

This article describes the Requirements Engineering session part of the Software Engineering block in the OOTI curriculum of the Technical University Eindhoven. The focus of this course is on capturing and managing requirements. The notion of key drivers and story telling will be introduced as a means to capture and manage. During the course an exercise is used based on video distribution via satellite. The students have to elicit the requirements for the required systems, working in teams of 4 students. Every student writes an individual report about the exercise.

Distribution

This article or presentation is written as part of the Gaudí project. The Gaudí project philosophy is to improve by obtaining frequent feedback. Frequent feedback is pursued by an open creation process. This document is published as intermediate or nearly mature version to get feedback. Further distribution is allowed as long as the document remains complete and unchanged.

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| block 1: teacher provides case | |
|--|---------|
| What are requirements, black box, SMART | 1/2 day |
| homework: make requirement specification | |
| Customer and Application view, Story telling | 1/2 day |
| homework: improve requirement specification | |
| Discussion of requirement specification per team | 1/2 day |

| block 2: actual current case of OOTI education | |
|---|-------------------------|
| Financial viewpoint, Presentation to management | 1/2 day |
| homework: make presentation outline | |
| Documentation How-to | Coaching and discussion |
| homework: make presentation | 1/2 day |
| Presentation project case to management team | 1/2 day |
| individual report | |

Program

| time | subject |
|-----------|---|
| Session 1 | What are requirements, black box, SMART |
| Session 2 | Customer and Application view, Story telling |
| Session 3 | Discussion of requirement specification per team |
| Session 4 | Financial viewpoint, Presentation to management |
| Session 5 | Documentation How-to, Coaching and discussion session |
| Session 6 | Presentation of project case to management team |

Schedule

block 1; teacher provides case

| | |
|--|---------|
| What are requirements, black box, SMART | 1/2 day |
| homework: make requirement specification | |
| Customer and Application view, Story telling | 1/2 day |
| homework: improve requirement specification | |
| Discussion of requirement specification per team | 1/2 day |

block 2; actual current case of OOTI education

| | | |
|---|-------------------------|---------|
| Financial viewpoint, Presentation to management | 1/2 day | |
| homework: make presentation outline | | |
| Documentation How-to | Coaching and discussion | 1/2 day |
| homework: make presentation | | |
| Presentation project case to management team | 1/2 day | |
| individual report | | |

Case Instructions

1. Block 1 session 1: Make an initial requirements specification
2. Block 1 session 2: Improve and complete requirements specification
3. Block 2 session 4: Make an outline of a presentation of maximum 10 minutes, target audience: management team of your company
4. Block 2 session 5: Prepare and exercise presentation
5. Block 2 session 6: Write an individual report reflecting on: requirement specification, management presentation, lessons learned and how to do it next time.

Case: Recommended Steps

1. Make a black box view of the system
2. Make some initial drafts and designs to explore the problem.
3. Make a story which helps to understand the products, make sure to use the criterions for a story.
4. Look from all stakeholder points of view towards the problem and identify what they need and what they expect.
5. Analyze the information obtained so far and extract the underlying requirements.
6. Abstract the key drivers behind the requirements.
7. Make a top-down description of the requirements.

Case: Questions for Individual Report

- What are the most important lessons you learned from these exercise (requirement specification, management presentation)?
- Which roles did the members of the group play during the exercise?
- How would you approach such a problem the next time?
- Which stakeholders understand your group presentation? Are they happy with the presentation?

Submission of Homework

Homework instructions

specification minimum 4 hours work/person, maximum 8 hours

maximum 6 A4 pages

presentation minimum 2 days work/ person, maximum 5 days

filename: [OOTI<year>] spec|presentation <team id>.<version number>

e.g. [OOTI2008] spec team1.1.doc

all team members on front page

email to: <gerrit . muller @ gmail . com>

subject: [OOTI<year>] spec|presentation <team id>

from/cc: <all email addresses of team members>

when: 48 hours before next lecture