



- Exam project

Class : D14
Semester : 3. semester
Time period : November 27th – December 18th 2015
Subjects : Programming (SDP), Technology (CDS)
Software Development (SDM)

Teachers : Christian Johansen, Tommy Haugaard
Karsten Skov.

Deadline : Friday, December 18th at 16.00 o'clock electronically



Introduction

The project is an interdisciplinary software development project involving essential parts of the curriculum for this semester, including topics from all three subjects taught on the semester: SDP, CDS and SDM. Briefly explained, you should develop a distributed application and write a report documenting the product and the process.

The project case is given to us by an external association. This case will be presented orally November 27th at the school. At this day you will also receive some written documentation of the organizations needs/requirements/expectations. The contact person of this organization will to some extend be available for questions/clarification during the process.

As a general guideline, the project should involve essential parts of the semester curriculum for the subjects SDP, CDS and SDM. More specific requirements to the process, product and the report are described below.

Requirements – process, product and report

The process

The academy has the following requirements for the process

- a) You are required to use Scrum as a project management methodology. That method may be combined with Kanban and/or Extreme
- b) The development process must include considerations regarding security and infrastructure. With respect to infrastructure you must as a minimum consider the advantages and disadvantages of a cloud infrastructure.

The product

The academy has the following requirements for the product

- a) The code must be written in the Java language or consist of web-relevant code covered in this course like HTML etc.
- b) The completed system must be distributed in the sense that it contains communicating applications placed on different hosts. But during demonstration all applications might be executed from the same host.
- c) The solution as a whole must contain web parts. As a minimum: one HTML page and one Web Service hosted on a Web Server must be integrated in the solution.
- d) As database SQL Server is recommended but alternatively MySQL is also accepted. The SQL script which creates the database should be included in the report as an appendix.

The report

There are two exams:

1. Exam in the subjects Programming (SDP) and Technology (CDS)
2. Exam in the subject Software Development (SDM)

Both exams are based on the same interdisciplinary software development project, and the project must be documented in a single report. It must therefore be clear which part of the report deals with SDP/CDS, and which part deals with SDM.

The report must as a minimum include:

- Cover page with project title
- Table of contents
- Introduction
 - Project definition for the project as a whole
- The SDP and CDS part
 - Introduction for SDP/CDS part
 - Main sections
 - Conclusion for the SDP/CDS part
- The SDM part
 - Introduction for the SDM part
 - Main sections
 - Conclusion for the SDM part
- Bibliography
- Appendices

The maximum length of the SDP/CDS part is 20 standard pages, while the maximum length of the SDM part is 10 standard pages. A standard page is 2400 characters incl. spaces and footnotes.

It is a well-known truth that high quality documentation outlines the rationale behind important decisions, and not only the outcome of the decisions. If you know “why”, it will in many cases help to understand “what” in a much better way.



Exam

There are two exams in January 2016

1. Exam in the subjects Programming (SDP) and Technology (CDS)
2. Exam in the subject Software Development (SDM)

Both exams are based on the same interdisciplinary software development project, which was described in the previous sections. The examination procedure for each of these exams is described below.

Procedure for the exam in the subjects SDP and CDS

This exam is an external individual oral exam based on the SDP and CDS parts of the interdisciplinary project. It has a total duration of 40 minutes (incl. evaluation and communication of grade).

The student presents a central topic of the project (10-15 minutes). The presentation should include demonstration of code.

The presentation is followed by an examination dialogue (20-25 minutes) where all topics from the subjects SDP and CDS may be involved.

This examination dialogue is based on two extemporal questions drawn by the student in each of the subjects SDP and CDS.

A single grade will be given based on a general assessment of the SDP and CDS part of the project and the oral performance during the examination.

Procedure for the exam in the subject SDM

This exam is an internal individual oral exam based on the SDM part of the interdisciplinary project. It has a total duration of 30 minutes (incl. evaluation and communication of grade).

The student presents central topics of the project (around 10 minutes). The presentation is followed by an examination dialogue (around 15 minutes) where all topics from the subject SDM may be involved.

A single grade will be given based on a general assessment of the SDM part of the project and the oral performance during the examination.

/The Teachers
CJO,THA,KAS