Modern Methods in Software Engineering

Introduction

Course info

Coordinator and lecturer

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Assignments and project responsible

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Lectures & Exercises:

see next slide

Written examination (4.5 p.)

October 28 at 08:00-12:00

Registration at least 21 days before exam period

Homework and project assignments (3 p.)

Schedule

- Allocation of lectures and tutorials to scheduled time-slots for Zoom meetings:
  - Lectures : August 30,31, September 2, 7, 8, 15, 17, 22, 23, 28, 30
  - HW Tutorials: September 6, 14, 20, 27

Homework

Start Date	Due Date	Description
2021-09-06	2021-09-13	Homework 1
2021-09-14	2021-09-20	Homework 2
2021-09-20	2021-09-27	Homework 3
2021-09-27	2021-10-04	Homework 4

It is assumed that the Homework are done by groups of 2 students

(mini)Project

Aims of the project

- To get practice in Agile Programming approach

Your task

Apply some elements of Extreme programming approach to solving the problem of implementing a system for insurance claim processing

Provide an analysis and comparison of your experience to develop a code with analysis-design-implementation cycle and with XP approach

The project must be done by groups of 2 students

Homework and project bonus points

1. Delivering each homework and a project in due time gives 1 bonus points (this assumes that all Homework are approved). For approval, if in the case there were small problems in the solutions during discussion, we usually give maximum one week to reflect the changes and then the bonus is recorded.
2. For each each Homework and project approval from the first attempt gives 1 bonus point.
3. In case of Late Submission of any Homework, No bonus points will be awarded for the "in-time submission of homework".
4. Additional bonus points will be given for participation in tutorial sessions (1p for each),
5. Passing all 4 quizzes gives 1p
6. Extra_efforts in reporting Homework gives 1p for each.
7. Extra_efforts in reporting project gives 2p.

ALL Bonus points are only valid for the first exam on October 28

Exam

- Learning outcomes based:
  - Formulate definitions of the main software engineering concepts and methods.
  - Evaluate and use the main concepts and methods within the area of software engineering.
- Different sets of questions
  - Set of questions which gives pass E
  - If E is fulfilled, then other hierarchical sets of questions will be given for getting D, C, B or A.

Course literature

- **Object-Oriented Software Engineering: Using UML, Patterns and Java: International Edition, 3/E**
  Bernd Bruegge, Allen H. Dutoit,
  ISBN-10: 0136061257, ISBN-13: 9780136061250 Publisher: Prentice Hall, Copyright: 2010, 800 pp Published: 07/29/2009
  (available in the Kista Forum book store)

Available online

Lecture notes

- **Additional articles in the curriculum will be added during the course**

Very Tentative Plan for Topics Discussion

	Date	Lecture
1	30.08.2021	Introduction
2	31.08. 2021	Software Lifecycles,
3	02.09.2021	UML Basics
4	07.09.2021	Requirements Elicitation
5	08.09.2021	Requirements Analysis
6	15.09.2021	System Design
7	17.09.2021	Object Design (reuse)
8	22.09.2021	Object Design (Interface Design)
9	23.09.2021	Move to code, Testing
10	28.09.2021	Extreme Programming and other Agile methods

Objectives of this course?

- Learn about Software Engineering methods:
  - how to build complex software systems when the context frequently changes
- Learn methods for dealing with complexity and changes in software construction
- Be able to evaluate and choose methods for producing a high quality software system
- Get technical knowledge and some managerial knowledge for software construction