

TDDE46: Software Quality

Seminar 3

SOFTWARE PROCESS IMPROVEMENT – PART 2

Objectives:

1. To understand software process evaluation, documentation and improvement (L5, 6, 8)
2. To understand software practice evaluation, documentation and improvement
3. To apply software process/practice evaluation and improvement on bachelor projects (L5, 8)
4. A presentation about the topic, selected from the list (L7).
5. A discussion about the challenges/issues/problems, faced by TDDE46 students in coaching (L9)

Seminar Preparation:

Task 1:

During Seminar 2, Task 2, you have already met with bachelor student's group and identified the process area according to CMMI. This seminar is about the following:

1. You have to create a software process (e.g. a variant of SCRUM) documentation or software practice (e.g. Pair programming) documentation (yes! processes can be different than practices - <http://www.creatingthe21stcentury.org/Intro3e-Practice&process.html>) that you have identified with Bachelor project's students. You can either take help from SEMAT template (<https://www.ida.liu.se/~TDDE46/theory/essence.pdf>) or you can use any standard notations to document the process/practice. The idea is to have a visual/textual representation of the Bachelor project student's practices or processes (e.g., how their SCRUM looks like? Do they do test-driven development? What is the process of requirements handling?). This process/practice documentation could be simply descriptive where you describe or draw the process/practice, or it can include the information as presented in SEMAT (e.g., checklist for requirement states, working with alphas, competencies etc.). **The requirement for this seminar is to document only 1 process. According to "Coaching Interactions Documents", you are supposed to give them feedback on process improvements or ideas. Since you are four students (except for group of 5 students, as they are flexible in choosing) coaching for groups. We are expecting four processes from four different groups (each process for each project).**
2. Once you have documented the process/practice, it is time to suggest process improvements to Bachelor projects. Provide at least 2 process improvements or 2 practice improvements or 1 process and 1 practice

improvement. **You need to motivate your suggestions with literature such as standards or research papers.**

During Seminar (20 minutes):

During Seminar, we will form groups based on the identified process areas or practices. Go to Menti and submit the process areas.

Go to www.menti.com and use the code **7400 1806**

You will discuss the suggested improvements with each other in the groups. You can answer the following questions with respect to suggestions:

1. Why these suggestions are important?
2. How it will help the Bachelor students?
3. Is it easy to implement these suggestions? Or what makes it harder to implement?
4. Can you measure whether your suggestions actually improved something in the project?

You will leave the main Zoom room and discuss with each other. You will be provided with the separate Zoom meeting room based on the process area. After the discussion, you will join back the main room.

After 20 minutes, each group will share the findings of the discussion with all the class.

(25 Minutes after the Break):

Presentation by the Seminar Group

Each seminar group must have selected the slot and the topic for presentation. The information for slots is available on the course page in the “topics” menu. In addition, select a topic from the list provided on the course page. Each seminar group will select one topic to be presented. Discuss with each other, within group, the preferred topic. The seminar group must prepare a power-point presentation. The seminar group needs to present a detailed understanding of the topic in 20 minutes **such as problem definition, the method to solve the problems, solutions, effects of solutions, and learning experiences. We recommend that you read 3-4 peer-reviewed papers on the chosen topic to get a detailed understanding.** In addition to your understanding of the topic, you can answer some of the following questions (whatever applicable) about the topic.

1. Why does a selected topic require attention from researchers and practitioners?
2. Does the problem/issue/challenge relate to your circumstances such as during coaching, or reading literature, etc.

3. What is a suitable method, presented in paper or in your opinion, to address the problem/challenge?
4. What is a solution, presented in paper or in your opinion, to address the problem/challenge?
5. How can we use our knowledge from this presentation/reading towards improving the BS projects? (**Important**)
6. How can we use our knowledge from this presentation/reading towards improving our methods/ways for helping BS students? (**Important**)

Next 5 minutes are for QA sessions.

(The Last 20 Minutes):

Addressing the Challenges/Issues/Problems about Coaching the BS Projects

We will discuss the issues; you are facing and possible solutions. Since you are in different groups coaching different students, this is a good opportunity to learn from other's experiences and mistakes.

1. Before coming to the seminar, discuss with each other within your seminar group the challenges/issues/problems, you are facing in coaching BS projects. **Select 1-2 challenges that prefer to talk about.**
2. During the seminar, we will use the Mentimeter to ask you to write your challenges.
3. The instructors will select 1-3 challenges and discuss the strategies to discuss with the class
4. The instructor's comments about the remained challenges (i.e., that were not addressed due to the time limit during the seminar) will be provided in a text file on LISAM after the seminar.