Project IT spring 2010

Course introduction Wednesday January 20th
karl.marklund@it.uu.se

Full time course, one semester, 30 Hp
Course Responsible: Stefanos Kaxiras

Still in Greece, will be back in Uppsala in the beginning of February.

Teaching assistant: Karl Marklund
Will help you manage the projects.

Teaching assistant: Muneeb Khan
Will help you manage the projects.

Creative “consultant”: David Black-Schaffer
The guy with the main project proposal.
Project IT spring 2010

This is the homepage of the Project IT course (1DT021). Besides students from the IT program, students from the EI program can participate in the project in the form of the Computer systems electronics project course (1DT017).

Teachers

Course Responsible: Stefanos Kaxiras
Teaching Assistant: Karl Marklund

Schedule

Scheduled events will be announced here.

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<td>Wednesday</td>
<td>10:15 - 12:00</td>
<td>Course Start</td>
<td>P1245</td>
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<td>Mini project: start</td>
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Most students from the IT programme (30 Hp). Might also be some students from the EI programme (15 Hp).
The most fun and rewarding course during my time at the university!
This is what many students think of the course.

Learning outcomes

After completing this course, students are able to use knowledge and skills from other courses within the IT program to solve a large and complex problem task in the form of a project. This involves being able to...

Structure a large task into individual tasks in a large project group
Identify, obtain and use key knowledge associated with the individual tasks
Present a realistic design of a complex computer system
Group Discussions

A) How is this course different from other courses you've taken?

B) What do you think will be the greatest challenges?

C) What do you hope to learn during this course?
I would like to learn more about you!

Time for a small survey. The results of the survey will only be available to the teaching staff of the course.

The survey will be used as the base for individual discussions.

Answers as truthfully as possible. The purpose of the survey is to make it possible for the teaching staff to help you get as much out of the project experience as possible.
Schedule: Students are supposed to work normal office hours (9-17) in the project rooms.
Note: The Time Edit schedule will only show event booked in rooms other than the project rooms P4407 and P4408.

Mini Project

Background
This might be the first time you are asked to work in a large group (about 10 - 20 people) for a substantial amount of time (100%, one full semester) to solve a problem where there is no predefined solution. To prepare for the challenges with running a large project, you will first carry out a 2.5 week mini project.

Goals
After completing the mini project you should have a better understanding of how to best utilize the group to accomplish a goal during a small and fixed amount of time (timebox). Typical activities of the software development process that the group may need to address are:

- Requirements analysis
- Specification
- Planning (time and resources)
- Research
- Architecture
- Design
- Implementation
- Testing

Lessons learned from the mini project will be very valuable to aid in the planning and execution of the main project.

Method
A quite open problem will be given to the group. The group must decide how to limit the scope of the problem and how to organize itself. At the end of the mini project, the group must present their result to the teaching staff.
Project IT spring 2010

Mini Project: Cooperative Exploration

Using a number of cooperating but otherwise autonomous Lego NXT robots, how can a graphical map of the operating environment be constructed and presented to a human user.

A few things to consider:

- How to best utilize the available number of robots to maximize the speed at which the map evolves?
- What happens if a new robot joins the exploration squad?
- What happens if a robot stops working (shuts down)?

The learning outcomes for the mini projects are described on the main course page.

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<tr>
<td>Friday</td>
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Group Assignment

- Come up with a time plan
- Come up with a suggestion of how to organize the group?

Things to consider:

- Requirements analysis
- Specification
- Planning (time and resources)
- Research
- Architecture
- Design
- Implementation
- Testing

About 13 work days to complete the mini project...
Creative "consultant": David Black-Schaffer

The guy with the main project proposal.
Are you registered on the course?

If you decide to drop the course later than within three weeks from the course start (20/1 2010) the student office will make a discontinuation note which might affect your possibility to take the course at a later time.
The rest of today

Visit the project rooms

Equip the project rooms with computers

Get started with the group assignment

Deadline: tomorrow 11:15 when we all meet again for discussions.

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