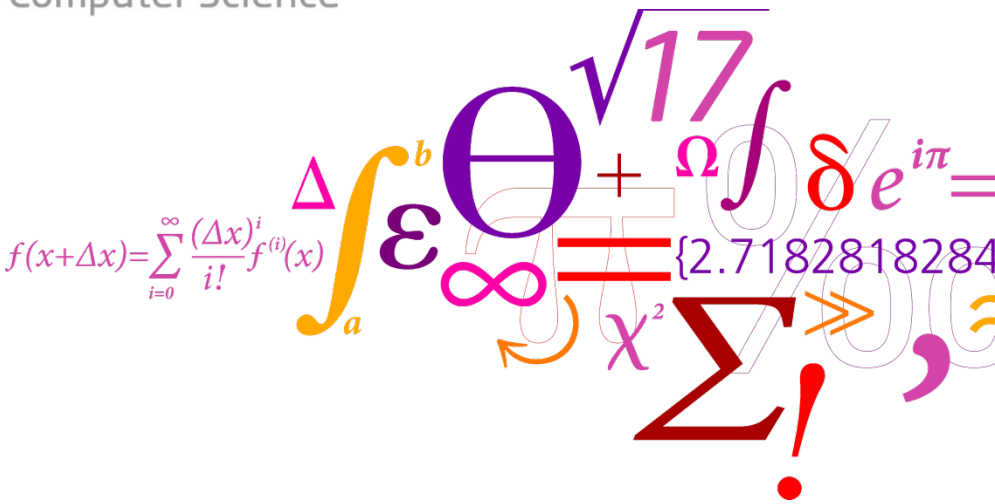
Software Engineering 2

A practical course in software engineering

Ekkart Kindler

DTU Compute
Department of Applied Mathematics and Computer Science



Project:
Group Meeting

Any students not assigned to groups yet?

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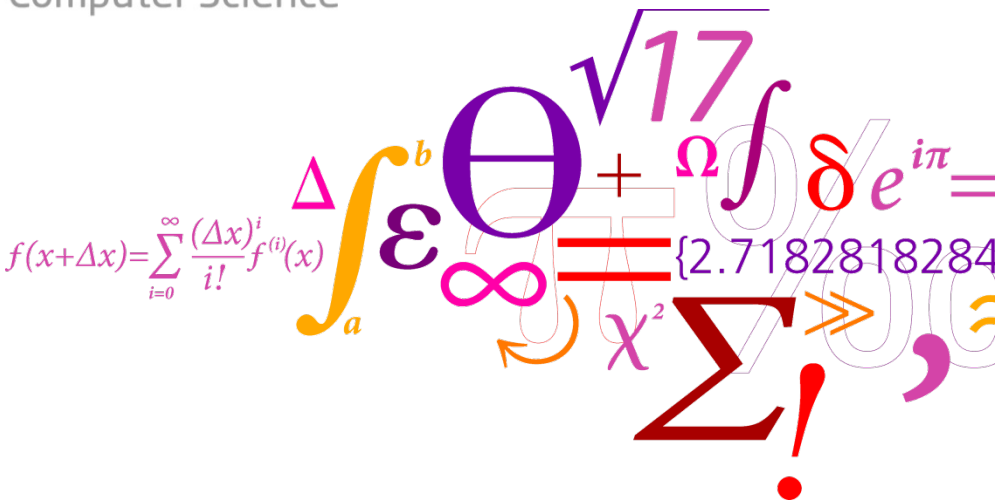

Planning Game

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In our course, you will be formulating the user stories (based on project owner's ideas).

- Project owner:
  Formulates user stories
- Developers:
  Estimate stories (how long do they take to implement)
- Developer: If a story is too big, story is split up in sub-stories and tasks
- Project owner prioritizes and chooses stories for next release (choose scope), but not more than developers estimated they can do!
- During iteration: Developers, assign and implement stories and adjust (if needed together with project owner) → Trello board with tasks

User Stories: Examples

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From project in 2017 & 2018

Example from last years' projects

- As a home owner, I want to be able to use NorthQ devices with openHAB, so that I can use NorthQ devices together with other devices available in openHAB
- As an inhabitant of some home, I want the openHAB system to be aware of my location (even outside the home) so that the system can take actions based on this information (which, for example, could be turning on the heating in my room when I am on my way home from work).
- As a home owner, I want openHAB to collect data from sensors and record events, which later can be visualized and analyzed for "some" purpose so that I can optimize my home (e.g. w.r.t energy consumption, well-being, ...).
- As a home owner, I want that the openHAB system and the involved NorthQ system cannot be "hacked" (in particular not through exploiting the extensions), so that I can trust the system.
- ...

User Story: Structure

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As a …,

- **Who** is involved in the user story: user in a role

I want to do …

- **What** will the user be able to when the user story is implemented

so that …

- **Why** is that user story relevant

Release 0

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- Sometimes, in particular release 0, user stories have some technical tasks which need to be done before the actual user story can be implemented:
  - Setting up repository
  - Setting up servers (Jenkins, web server)
  - Databases
  - Install existing software
  - …
- If possible, the effort for these should be estimated as part of a user story; but, sometimes it is more convenient to define “technical tasks” to do that

Release 0

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Technical Tasks

- Set up repository
- Maybe, set up integration server Jenkins (including testing)
- Set up existing software (collection software & visualization separately)

Note: Give access to Ekkart: GitLab on gbar: ekki@dtu.dk

Access information to VMs will be given to groups shortly!

User Stories:

- No explicit user stories for release 0
- We will start with real user stories in release 1

Status Report (SR)

See course's material and schedule page (online now):
http://www2.compute.dtu.dk/courses/02162/e20/material.shtml

In some Friday sessions (13-15), all groups are required to give a status report (5-10 minutes):

- What did the group do
- What went well
- What did not go well
- What can you do about it
- What do you do in next week

Sometimes, it is explicitly required to demonstrate running software and working infrastructure or to show some code.

Group Meeting Today

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- **Planning game** (when Ekkart is visiting group); Report the chosen user stories and tasks to Ekkart by email (ekki@dtu.dk)
- Decide on a **group leader** and **deputy** and report it to Ekkart by email after the meeting
- **Assign/**choose first **user stories**, **tasks** (remember: pair programming), and **setting up infrastructure**
- Decide on **regular group** (sub-group) **meetings**
- Decide **who is responsible** for upcoming **tasks** (e.g. project vision and first SR, and presentation)
- Decide how you **document and trace your decisions and tasks** from the meeting

All Group Meeting

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- **Group leader** should compile an **agenda** and send it ahead of the meeting
- Someone should be responsible for taking **minutes of the meeting**
- All **tasks and deliverables** should have a **responsible person** assigned, who tracks needed action for that task or deliverable

For tracking user stories and tasks, you might want to use Trello

Rooms for group meeting

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Group A: 210.008

Group B: 210.018

Group C: 210.110 (maybe 012)

Group D: 210.112

Group E: 210.118