Agile Software Development

L01 – Course organization

Ezequiel Scott
ezequiel.scott@ut.ee
Learning goals

To introduce some of the practices on agile software development, taking as an example the development of applications labelled as “software as a service”
Rationale of the course

Strong connection with

MTAT.03.229 – Enterprise System Integration

Great opportunity to introduce/recall some concepts:

- Software development practices
- Development of web-based applications
- Use of cloud-based tools
Approach

• Learn the bases (agile practices)
• Learn a technology stack (for SaaS)
• Put them into practice (warm up – labs)
• Develop a SaaS project from conception to deployment
  • Applying agile practices
  • Using a technology stack
Course Organization

• Coordinator:
  • Orlenys López-Pintado

• Lectures
  • Tuesdays 10:15-12:00, J. Liivi 2 - 111
    • Weeks 1-5: Ezequiel Scott
    • Weeks 6-15: Orlenys López-Pintado

• Practical sessions
  • Group 1, Fridays 14.15-16.00, J. Liivi 2 - 403
  • Group 2, Tuesdays 12.15-14.00, J. Liivi 2 – 404
    • Weeks 2-15 (Starts on 10.09)
Lab instructors

Orlenys López-Pintado
orlenyslp@ut.ee

Maksym Yerokhin
maksym.yerokhin@ut.ee
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<td>03.09</td>
<td>Introduction</td>
<td>15.10</td>
<td>Phoenix app’s architecture, a deep live</td>
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<td>10.09</td>
<td>Test-Driven Development</td>
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<td>Phoenix: Authentication and authorization</td>
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<td>17.09</td>
<td>Requirements and Iterative Software Development</td>
<td>29.10</td>
<td>Front-end Development: Introduction to Vue.js</td>
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<td>24.09</td>
<td>Code Smells, Code Refactoring, and Traceability</td>
<td>05.11</td>
<td>Phoenix channels and Vue.js Components</td>
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<td>01.10</td>
<td>Agile Software Development with Scrum</td>
<td>12.11</td>
<td>Deployment and Continuous Integration</td>
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<td>08.10</td>
<td>Behaviour Driven Development (BDD)</td>
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<td>10.12</td>
<td>Project Consultation</td>
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How to pass the course

- **Homeworks** (submitted in pairs) 10 points
  - 2 lab assignments x 5 points

- **Project** (team-based, 4 members) 35 points
  - Evidence of use of agile practices
  - Assessment of the delivered software (code + tests)
  - Sprint reviews (weekly)
    - \( \text{sum(commitment per sprint)} \times \text{completeness} \)
    - Max = \( (5 \times 7) \times 1.0 \)

- **Final exam** 55 points
  - You need a mark of at least 23 points out of 55 to pass the course
  - Structure of the exam: Theory (20p) / Practice (35p)
Assessment

• All members in a team receive equal grades in labs

• **BUT**: Exceptions from equal grade rule will be made, if individuals in a team don’t participate actively

• Lab assignments: team penalties apply for late delivery
  • 24h → -25%
  • 48h → -50%
  • >48h → -100%

• Sprint Reviews: Individual penalties apply for not attending the reviews

• Don’t plagiarize!
Communication channels

Messages / Feedback

Slack!!!