
Main Project

Software Engineering II

2022-11-03



Product Owner and Scrum Master

- Can be contacted at (almost) any time on Telegram
 - ☐ Answers will come typically during “office hours”
- PO (response to stories link)
 - ☐ Clarification on stories
 - ☐ Discussion during planning
- Scrum master (response to key concepts reminder)
 - ☐ How to work
 - ☐ What can (not) be done



Daily Scrums

- frequent
- Perform “daily” scrum
 - ☐ at beginning of new work session or
 - ☐ beginning of lecture
 - whichever come first
 - ☐ Anytime you can meet together
- Record spent time on scrum meeting on YouTrack

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Time budget

- 8 person-hours per team member per week
- Sprint duration: 2 weeks
- Effort budget per sprint
 - ☐ 80 hours for 5-members teams
 - ☐ 96 hours for 6-members teams
 - ☐ 112 hours for 7-members teams

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Estimation and planning

- All stories entered in a new project board
- One third of stories estimated
 - ☐ Story points
- Planning for the first sprint
 - ☐ Sprint started
 - ☐ Stories selected assigned to the sprint
 - ☐ All tasks estimated in hours
 - ☐ Keep in mind your time budget
- **By Wednesday 8 November everything available on YouTrack**

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Share information on your repositories

- On the shared Google sheet
<https://tinyurl.com/ynurvxdr>
- - ☐ **By Wednesday 8 November columns YouTrack and Github must be filled**
 - ☐ You will insert data about Docker and Sonar Cloud after the respective workshops



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Deadlines and requirements – part 1

- Wed Nov 8 – Estimation of 1 / 3 of stories and first sprint planning
 - ☐ Youtrack and Github repositories shared on <https://tinyurl.com/ynurvxdr>
- Thu Nov 16 – Demo 1
- Thu Nov 30 – Demo 2 – **Release 1**
 - ☐ The **release** consists in providing a Docker container with all the software
 - Plus instructions on how to start and use the system
 - Must contain the full deployment
 - ☐ External SAML2.0 authentication service
 - ☐ Docker repository shared on <https://tinyurl.com/ynurvxdr>
 - ☐ Docker container deployable by third parties

Deadlines and requirements – part 2

- Thu Dec 14 – Demo 3
 - ☐ Sonar cloud repository shared on <https://tinyurl.com/ynurvxdr>
 - ☐ Sonar cloud analyses performed and track of TD management
 - ☐ Estimation of all stories
- Thu Jan 18 – Demo 4 – **Release 2**
 - ☐ Docker container deployable by third parties
 - ☐ Sonar cloud analyses performed and track of TD management
 - ☐ Teaser video on YouTube

THESIS MANAGEMENT

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Thesis Management

- Application for managing thesis @ PoliTo
 - ☐ propose/search for available thesis works
 - ☐ assign and managing theses
 - ☐ organize discussion
 - ☐ ...

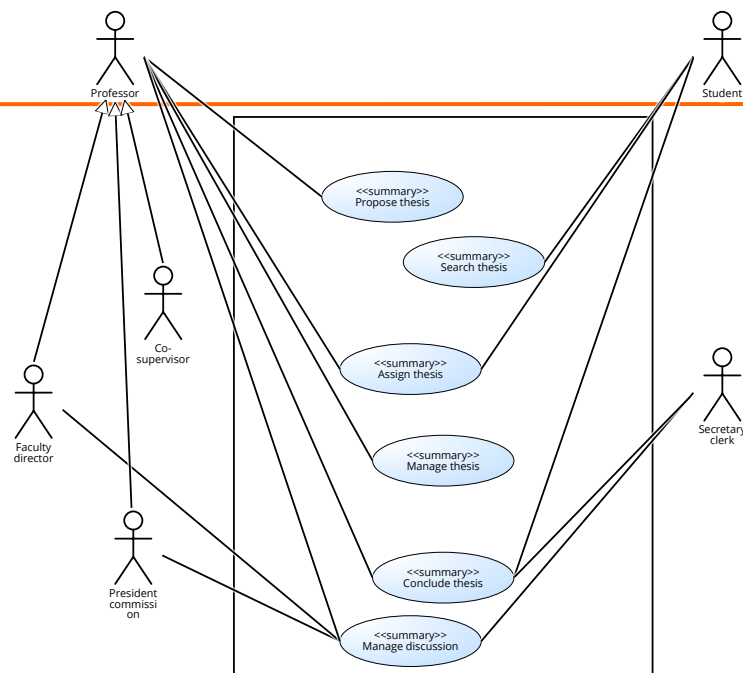
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Users

- Professor
- Co-supervisor
- Student
- Secretary clerk
- Faculty director
- President of commission

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Overview



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Constraints

- System must be accessible through:
 - ☐ regular web browsers
 - ☐ smartphones
 - ☐ tablets
- The system must be cross-platform

Test data

- You will have to create test data
- Teams can collaborate and share test data, if you wish
- Some details on next slides

Test data – proposal fields

- | | |
|------------------|----------------------|
| ▪ Title | ▪ Description |
| ▪ Supervisor | ▪ Required knowledge |
| ▪ Co-supervisors | ▪ Notes |
| ▪ Keywords | ▪ Expiration |
| ▪ Type | ▪ Level |
| ▪ Groups | ▪ CdS /programmes |

Predefined DB tables: STUDENT

- ID
- SURNAME
- NAME
- GENDER
- NATIONALITY
- EMAIL
- COD_DEGREE
- ENROLLMENT_YEAR

Predefined DB tables:TEACHER

- ID
- SURNAME
- NAME
- EMAIL
- COD_GROUP
- COD_DEPARTMENT

Predefined DB tables: DEGREE & CAREER

- | | |
|---|---|
| <ul style="list-style-type: none">▪ DEGREE<ul style="list-style-type: none">□ COD_DEGREE□ TITLE_DEGREE | <ul style="list-style-type: none">▪ CAREER<ul style="list-style-type: none">• ID• COD_COURSE• TITLE_COURSE• CFU• GRADE• DATE |
|---|---|

Authentication

- Using email as user name and id as password.
- Must use an external SAML2.0 authentication service (a simple IDP must be provided by 1st release, i.e. demo 2)

Virtual clock

- Since the system works over periods of time, a virtual clock must be available for testing purposes
 - Virtual clock must let the tester fast-forward time.

Product backlog

- Stories are already in **priority order**, the most valuable is the first one
- Import the provided file by following the You Track tutorials
 - ☐ From XLSS or Google Sheet:
 - <https://www.jetbrains.com/help/youtrack/cloud/import-from-xlsx.html#setup-procedure>
 - ☐ From csv file:
 - <https://www.jetbrains.com/help/youtrack/cloud/import-from-csv.html>

Reward and impact

- Best three applications will be shown to the PoliTO IT department
- Possibility to continue the work with a scholarship at the PoliTO IT department

Checklist for project self-evaluation (1)

▪ COORDINATION AND PLANNING

- ☐ Are Scrum Meetings performed regularly?
- ☐ Is workload among team members balanced?
- ☐ Is workload of members close to the expected one?
- ☐ Are user stories moved to sprint boards according to planning and actual development?
- ☐ Is task size consistent with guidelines?
- ☐ Are tasks estimated?
- ☐ Is time spent on tasks tracked?

Checklist for project self-evaluation (2)

- ☐ Are all sprint boards complete with planned tasks?
- ☐ Are there estimated and tracked technical tasks?
- ☐ Are retrospectives conducted collectively?
- ☐ Are retrospectives filled with meaningful and precise data?
- ☐ Do retrospectives generate concrete and verifiable improvements in next sprint?

Checklist for project self-evaluation (3)

▪ DEVELOPMENT AND QUALITY ASSURANCE

- ☐ Is the definition of done fully respected?
- ☐ Are all functionalities of a story working properly?
- ☐ Is priority of backlog respected?
- ☐ Is there evidence of manual testing?
- ☐ Are test data for demo prepared in advance?
- ☐ Is technical debt management estimated?
- ☐ Is technical debt management performed and tracked?
- ☐ Is deployment of container tested on more than a pc?

Checklist for project self-evaluation (4)

- ☐ Are the instructions to run your docker image present on DockerHub or GitHub?"
- ☐ Is documentation of the release complete (e.g., credentials, readme, etc.)?
- ☐ Are GitHub issues promptly opened after giving feedback?
- ☐ Is follow-up activity on a feedback GitHub issue properly tracked?