

Procedure FoPras and Project Work (Summer Semester 2024)

1 Kick-off Meeting

There is an individual kick-off meeting with each team. The task and objective should become roughly clear here. In some cases, the requirements are already defined in sufficient detail in the assignment, so that a special kick-off meeting can be omitted.

Thereafter, it is the task of the team to work out and document the exact requirements. Your supervisor will be available to you as a contact person for the collection of requirements. If necessary, please make your own appointments for further meetings.

2 Milestone Meeting

The milestone meetings take place with several teams with an assignment from the research group. In addition to presenting your status, you can also exchange ideas with other teams. Each team has a total of approx. 20 minutes. Around 10 minutes of this should be prepared as a presentation. The remaining time is intended for feedback on the current status, advice on how to proceed and for general discussion. If you have specific questions, you can of course also ask them during this time.

In addition to the information in these instructions on what planning and documentation should be created, please refer to the guidelines for FoPras and Project Work in the "official" ILIAS course for FoPras and Project Work. There you will find further information on what information can or should be included in the documentation. However, the timetable is based on the instructions provided here and not on those in the guideline.

2.1 First Milestone

By the first milestone, you should have decided on a development process and assigned the roles in the team (roles can also be assigned on a rotating basis, for example). Work out the requirements by then; define what the "minimum viable product" is and work out the requirements at least for this. Also make an initial schedule. From the first milestone at the latest, also record your time and update your time planning at each milestone.

Presentation content:

1. Overview
 - Task definition
 - Topic
2. Management
 - Team
 - Distribution of tasks (roles)
 - Development process

3. Implementation
 - Technical framework conditions
 - Previous requirements ("Minimum Viable Product" / mandatory / optional)
4. Planning
 - Time planning (availability planning, possibly cost estimation)
 - Risks
 - Quality assurance
5. Goals until the next milestone meeting

2.2 Further Milestones

For advanced internships (Bachelor), there are usually only two milestone meetings spread over one semester. Project work (Master's) over two semesters continues the milestone meetings in the following semester and usually has four milestones.

Progress should be presented at each subsequent milestone, as well as an overview of time tracking and adjustments to the schedule. If you are working in a waterfall process, report on the completed phases at each milestone and present their results. If you are working in an iterative process, provide an overview of the completed iterations and their respective results. Ideally, the minimum viable product should be ready at the second milestone or at least it should be made clear what is still missing by then.

Presentation content:

1. Overview
 - Very brief reminder about the task / topic and the team
2. Management
 - If applicable: changes in the process, in the team, in the requirements, etc.
3. Implementation
 - *For waterfall:* completed phases and their results.
For iterative processes: completed iterations and implemented requirements
 - Current status of quality assurance
4. Planning
 - Current status of time recording, updated time planning
 - Documentation (project documentation, user documentation, developer documentation)
5. Targets until the next milestone meeting, if applicable

3 Acceptance Meeting

The acceptance meeting again takes place individually with the groups and should generally last between 30 and 45 minutes. The meeting should take place before the end of the semester. Prepare a short demonstration of your product (max. 10 minutes) and briefly present your documentation.

Merge all your Git development branches into one branch before the meeting!

Also prepare a code walkthrough so that you can look at the implementation together with your supervisor. You should show the following:

- The architecture of your implementation (division into directories, components, packages, etc.)
- Demonstrate your build environment (e.g. demonstrate the build process), demonstrate deployment if necessary
- Execute your test suite, explain your test strategy and show exemplary test implementations, demonstrate further quality assurance measures (e.g. commenting, conventions, style) if necessary
- Show the implementation of (at least) one requirement as well as the implementation of central classes (or similar) in the code, go into interesting special cases or design/implementation decisions
- Go into the planned expansion options in the code (which expansion scenarios have you planned) and/or show known limitations in your implementation

The acceptance is typically interactive. This means, as suggested above, prepare a few points that you can use to present your implementation and other created artifacts (such as documentation or data) in detail on a random basis. Your supervisor may also have more in-depth questions or ask about other implementation details.

It is likely that limitations, errors or other defects (e.g. in the programming style) will be identified during acceptance. An agreement is then reached on what still needs to be rectified and in what form. The defects should be rectified as quickly as possible and a short log of the corresponding changes should be drawn up; agree on a suitable time frame for delivery.

4 Delivery

Unless otherwise agreed, it is sufficient to submit your implementation (code, documentation, etc.) via the Git repository (revised according to the agreement if necessary). If necessary, send the protocol on the implementation of the agreed changes to your supervisor.

All changes made by the team must be merged into the main branch in the Git repository. If you have forked your project from a default, also submit a merge request. Make sure that your supervisor has access to your Git repository.

In addition to your implementation, the Git repository should also contain the developer/user documentation including installation instructions. A very good option is to create this documentation in the form of a readme markdown file.

The submission also includes a short presentation of the project. This is to present the completed project in the ILIAS group for FoPras/Project Work. Typically, this is done in the form of a short video (approx. 3 - 5 minutes). In the video, briefly demonstrate your result from the user's point of view (screen video); you can also show a very rough outline of your implementation. Above all, show the results of your work that you particularly like and are especially proud of. Also give a short experience report: what worked particularly well or

particularly badly in your project (project management, practices, technologies, etc.). What would you like to pass on to subsequent internship groups? - "Dos and Don'ts".

5 Important Dates

Each team member should be present at least half of the milestone meetings. In addition, at least one team member must attend each meeting (preferably at least half the team). All team members must be present at the final acceptance meeting.

The consultation hours and the Gitlab workshop are voluntary and you should participate if required. However, we recommend the participation of at least one team member for the Gitlab workshop.

We are always available for further meetings. If necessary, please make individual appointments directly with your supervisor.

Meeting	Date / Time	Location
Preliminary discussion	Thu, 18.04.2024, 16:00h	HS V
Kick-off (if necessary)	Individual agreement	05D08 or office of the supervisor
Consultation hour	Thu, 02.05., 13:00 - 14:00h	05D08 or office of the supervisor
1st milestone	Thu, 16.05.2024, 13:00 - 15:30	05A35 (SR IV A5)
Gitlab Workshop	Thu, 23.05. 13:00 - 14:30h	+2/0120 (HS D) in „Hörsaalgebäude Chemie“
Consultation hour	Mon, 27.05.20024, 14:00 - 15:00h	05D08 or office of the supervisor
2nd milestone	Thu, 27.06.2024, 13:00 - 15:30	05D08 (PC-Pool D5)
Acceptance	No later than 30.09.2024 Please make an individual arrangement.	05D08 or office of the supervisor
Delivery	No later than 07.10.2024	Submission via ILIAS