

Projects - Rules

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Foreword

This document describes the rules for all three types of team projects: Software Project (SIS code: [NPRG069](#)), Research Project (SIS code: [NPRG070](#)) and Company Project (SIS code: [NPRG071](#)). It applies to the master's program **Computer Science - Visual Computing and Game Development**. There are rules for the execution of projects as well as practical tips for students. It is advised to read it thoroughly before you interact with any of them.

In a nutshell, Software Project is intended for a team of 3-5 students and takes 6-9 months to finish. Research Project is tailored to small teams that should enter a research team but you have to find a supervisor with (typically, not necessarily) a grant you can contribute to. Company projects are basically internships, but the faculty does not guarantee you can get one - you need to be assertive and proactive to find one.

Instructions

The document comes with two types of texts. First are rules typed in a standard format, the same one as you read right now. Rules are also numbered so it is easier to refer to them in communication. *Second are tips or explanations for students to give the rules wider context or provide directions in terms of what to do next; these texts are typeset in italics.* Both types of texts are blended together to provide a picture about projects as complete as possible and to limit cross referencing. Finally, there are FAQ sections, one for each project type, which will grow as life goes.

Contact

If you have practical questions about the rules, contact the KSVI Project Board by email: projekty@ksvi.mff.cuni.cz (*note that the answer might be delayed if the question is too complicated to answer right away*).

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General project rules

- G1. In general, all project courses can be entered at any time.
- G2. There is no need to enroll in the course(s) upfront. However, you must be enrolled into respective courses if you want to receive credits from projects.
In fact, it is advised to first secure either a team for your Software Project or a supervisor and a project to work on or to contribute to in case of a Research Project or an internship in a company in case of a Company Project. Only after you secure your project, consider enrolling in the required course(s). Just beware that, e.g., if you start working on a software project in May, a project which is known to last 6-9 months, you should not enrol into NPRG069 as the academic year is ending in 4 months.
- G3. Projects are governed and overseen by the KSVI Project Board as listed by in [this document](#).
Various document regarding various projects may need to be signed by a member of a board.
- G4. The chair of the KSVI Project Board retains rights to alter the rules if necessary.
“Golden rule”, exceptional cases will be solved exceptionally. Always ask upfront, do not try to seek permissions ex-post or to solve problems when it is too late.

Software project rules

- S1. Software project is a project that is solved by 3+ students together.
Larger teams are discouraged.
In general, we want you to experience team development. However, bigger teams like 8+ people are quite challenging in terms of project management and you and your supervisor (see below) must be able to defend such a number.
- S2. The majority of team members have to be MFF students. It may contain even bachelor students, however, they can gain credit for the project only after they enter the master's program (which could happen during or after the project).
If your composition is different, then you will have to ask KSVI Project Board for permission or think about going for a research or a company project instead.
- S3. The project length is 6-9 months.
Software projects are two-semester long. In rare cases it can be less, but better assume the average period of 7-8 months. Also, scale the goal of the project accordingly.
- S4. Each project must have a supervisor.
Supervisor is someone who takes care about the project, helps you with project management but also approves the "Software Project Description" document (see below), its changes and in the end the final state of the project.
- S5. Supervisor can be anyone from the Department of Software and Computer Science Education (KSVI) faculty members.
See <https://ksvi.mff.cuni.cz/lide.en.php>, all people mentioned under sections Administrative faculty, Faculty members, External collaborators and Doctoral students can be supervisors.
- S6. You can also seek supervisors from other departments.
However, in that case you would most probably be entering teams composed of students from various programs. Beware that If you are taking a supervisor from another department, good chances are that you will need to complete the project under the rules of that department, which might be different from those described here. Always check with your supervisor which rules apply to your situation.
- S7. You and your team are required to create a "Software Project Description" document. There are a few templates to use, select one that seems to be the most appropriate to your situation: [generic template](#), [game template](#).
*In a nutshell, you should first enter or assemble a team of students willing to work on a project and then you have to find a supervisor who is willing to watch over you and guarantee your work; you can ask KSVI Project Board for advice.
Then you need to describe your project using the template provided above.*

- S8. “Software Project Description” document must be signed by all team members and approved by the project’s supervisor and a member of the Project Board different from the supervisor. Once filled out and signed, it has to be delivered to the Project Board for final approval; a scan is sufficient.
Once you have it all done, email the scan to the KSVI Project Board; if you are unsure, which member of the KSVI Project Board should approve your document, you can email the scan with signatures of all team members and the project supervisor only.
- S9. Every software project must have a software configuration management (SCM) repository (e.g. GIT), which does not necessarily have to be public. It can be also a repository of a larger project to which the team contributes.
Note that private repositories are reserved for projects that have good reasons to remain private, e.g., when the project is developed in cooperation with some private company using their technologies or know-how.
- S10. The software project is delivered by filling out a “Software Project Delivery” document. Use a template that matches your initial Project Description document: [generic template](#), [game template](#).
Here you have to describe what your software project is capable of and defend the changes towards the initial software project description.
- S11. A “Software Project Delivery” document must be approved by the project’s supervisor, a project opponent, and a member of the Project Board different from the supervisor.
Once your software project is finished and your “Software project delivery” is filled out, you have to seek its approval. Find a Project Board member willing to oversee its approval or simply email it to KSVI project board, who will appoint one.
- S12. The Project Board member who agrees to (or is appointed to) oversee the approval of the “Software Project Delivery” document appoints the opponent for the project different from the supervisor. Given the recommendation of the opponent, they approve or disprove the result. In the latter case, the team receives a list of the requirements to implement and/or improve; the team should (re)work and (re)submit the project again by filling out a new “Software project delivery” document.
- S13. Once the “Software Project Delivery” document is approved by the supervisor, its opponent and a member of the Project Board different from the supervisor it is submitted to the Project Board for approval, a scan is sufficient. Once the Project Board acknowledges the project, all the team members included in the “Software project delivery” are eligible for the credits for [NPRG069](#).
- S14. The project supervisor may award team members with extra credits (in the form of credits for [NPRG072](#)) for their efforts provided that their contribution to the project is evaluated as extraordinary.
- S15. The chair of the Project Board reserves the right to override any of the rules stated

here for each project specifically according to the nature of the project if the need arises. Such a change must be documented.

Exceptional situations will be treated on a per-case basis. Known also as a golden-rule. For instance, there can be more people on the project, or it can run faster, or there might be some arrangements with a company for which you are doing a software project for, etc.

Software project FAQ

Reserved space for frequently asked questions and their answers regarding rules and practical hints for software projects.

Research project rules

- R1. Research project is carried out in the context of existing academic work or a grant project at Charles University or in the context of your master thesis provided it is being solved in the context of an existing research group. A list of ongoing research project opportunities are available in the following [document](#).
Temporarily joining an existing research team at the faculty is what distinguishes Research project from Software / Company Projects.
- R2. Research project is carried out either by an individual or a group of at most three students.
If there are more than three participants, you should consider starting a Software Project. If you are an individual, your work must be carried out in the context of an existing group or a team.
- R3. Typical length of a research project is 6 months.
Less than a Software Project. Scale goals of your research project accordingly.
- R4. The result of the research project should be at least one of the following:
a) a paper submitted to a conference (not a poster) or a journal,
b) a draft of such a paper (not a poster),
c) a well-defined contribution to a grant deliverable that will be directly referenced in the project final review.
- R5. Each project is controlled by a supervisor.
A supervisor is your guide overseeing your progress who should also help you with tips if you get stuck in your research.
- R6. Supervisor can be anyone from the KSVI faculty members, including doctoral students.
See <https://ksvi.mff.cuni.cz/lide.en.php>, all people mentioned under sections Administrative faculty, Faculty members, External collaborators and Doctoral students can be supervisors.
- R7. You can also seek supervisors from other departments.
*However, good chances are you will need to do the project under the rules of that department, which might be different from those described here.
Always check with your supervisor which rules apply to your situation.*
- R8. The research project is entered by filling out a “Research Project Description” document. Use the [provided template](#). Once filled out and signed, it has to be delivered to the KSVI Project Board for approval; a scan is sufficient.
This should serve as a guideline for the project, it does not need to be overly specific but it should serve as an anchor during your work. You know, academic ways are broad as well as long / deep, so better not to get astray.

- R9. The research project is delivered by filling out the “Research Project Delivery” document. Use the [provided template](#). It must be approved by the project’s supervisor and a reviewer. The reviewer can be anyone from the KSVI faculty members, different from the supervisor. Once filled out and signed, it has to be delivered to the project board for approval; a scan is sufficient. Once the Project Board acknowledges the project, all the team members included in the “Research project delivery” are eligible for the credits for [NPRG070](#).
The delivery is less formal than in the case of software projects, yet there must exist a document to be inspected by an external reviewer. Note that the results of a research project are generally expected to be published (conference contribution / journal article / internal report of a larger project etc.).
- R10. The project supervisor may award team members with extra credits (in the form of credits for [NPRG072](#)) for their efforts provided that their contribution to the project is evaluated as extraordinary.
- R11. The chair of the Project Board reserves the right to override any of the rules stated here for each project specifically according to the nature of the project if the need arises. Such a change must be documented.
Exceptional situations will be treated on a per-case basis. Known also as a golden-rule.
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Research project FAQ

Reserved space for frequently asked questions and their answers regarding rules and practical hints for research projects.

Company project rules

- C1. Company Project allows a student to participate in a software project in an external company environment.
Taking part in in-house company projects distinguishes the Company Project from the other two types of team projects.
- C2. At the company, you need to work on a project whose results could be specified upfront and you have to work in a team.
The idea of company project is to gain first hand experience with team software development practises as conducted by the company. Note that there is no point in doing solo development for the company: that would be called outsourcing, which is not in the spirit of the company project... and you should be paid for that anyway.
- C3. Typical length of a company project is 2-3 man-months (8-12 man-weeks).
Actually, the size is comparable to the software project. The rationale behind is that you need to interact with the company environment for a longer period of time in order to gain any insights into their culture.
- C4. Each project is controlled by a supervisor at the company side and a guarantor at the university side.
Supervisor is someone who is appointed by the company to care about you while on internship as well as a contact person for the university. Guarantor is then a university contact person for the company as well as someone who oversees the eligibility of your work within the company for the purpose of gaining credits from the Company Project.
- C5. A guarantor can be anyone from the KSVI faculty (including Ph.D. students).
See <https://ksvi.mff.cuni.cz/lide.en.php>, all people mentioned under sections Administrative faculty, Faculty members, External collaborators and Doctoral students can be supervisors.
- C6. It is possible to do the project in any company where you would deal with computer science research and/or software project development, preferably related to your study program, i.e. visual computing / computer game development.
However, you would need to find a new guarantor if the company has not been in touch with the university in the past.
- C7. The list of companies and contact persons keen on accepting interns are maintained in the [following document](#).
There you can find companies various Project Board members have connections with.
- C8. The company project is entered into by filling out a “Company Project Description” document. Use the [provided template](#). Once filled out and signed, it has to be delivered to the project board for approval; a scan is sufficient.

This should serve as a guideline for the project, it does not need to be overly specific but it should serve as an anchor during your work.

- C9. The company project is delivered by filling out the “Company Project Delivery” document. Use the [provided template](#). It must be approved by project’s supervisor as well as the guarantor. Once filled out and signed, it has to be delivered to the project board for approval; a scan is sufficient. Once the Project Board acknowledges the project, the student is eligible for the credits for [NPRG071](#).
The delivery is less formal than in the case of software projects yet there must exist a document about the fact.
- C10. The project guarantor may award a student with extra credits (in the form of credits for [NPRG072](#)) for their efforts provided that the internship length is extraordinary or if the project supervisor evaluates student contribution as extraordinary.
- C11. The chair of the Project Board reserves the right to override any of the rules stated here for each project specifically according to the nature of the project if the need arises. Such a change must be documented.
Exceptional situations will be treated on a per-case basis. Known also as a golden-rule.
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Company project FAQ

Reserved space for frequently asked questions and their answers regarding rules and practical hints for company projects.