Software Engineering Project

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Goals

Project

- Realistic software development experience
- Produce finalized application, usable and maintainable
- More programming experience

Software Engineering

- Problems: large code base, large team, long time
- Various “solutions”:
  - methodology, design, coding techniques, tools...
- Fundamental concepts as well as some practical techniques
Organization

Lectures
- Principles of software engineering
- Architecture, design and modeling
- Rigorous software development, testing and debugging
- Tutorials on various useful tools

Project
- Complete software project, from design to release & demo
- Mandatory project meetings whenever no lecture
- Evaluation based on final release and individual activity
(Lecture 1)
Your project

A few constraints

- Groups of 8+ students: enough (development) work for all
- Based on tools freely available on linux (C411 machines)
- Code repository (e.g. git) visible by instructors
- Code hosting platform (e.g. github) with issue tracker, discussions, wiki, continuous integration

Apart from that, you can do whatever you want!
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Project descriptions

Start with a relatively precise description of your project:

▶ Avoid endless discussions on what you want to do.
▶ Set yourself a clear goal:
  good for motivation (before) + self-criticism (after).

Contents
Not much more than two pages, containing two parts:

1. General description
2. Precise goals (immediate, final, optional)

Need not be present: technological choices, implementation details, organization in subgroups.

Some examples given on the website of the course.
Project proposals

Try to think of something

- **Large** ⇝ be ambitious!
- **Modular** ⇝ propose a decomposition in sub-projects.
- **Interesting** ⇝ exploit various skills, make it fun or useful.

Have an idea?

- Prepare a project description, let everybody know.
- **Next time (sept. 22)**: present your proposals.
- Groups will be formed based on interest.
- Work on final project descriptions, due by **oct. 29**.
Some ideas

Example project proposals may be found on our website:

- Rogue-like
- Banking assistant
- Smart subtitle system

Other ideas:

- Your favorite board game, with online playing, awesome graphics and (strong) artificial intelligence
- Static analysis tools for your favorite programming language
- Tool to play with your favorite objects from computer science
- Yet another text editor, mail client, programming language...
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...but you'll probably have better ideas ;)}