Studio 2 Project

CS-C2120, Programming studio 2

Learning goals

- The first larger *personal* software project, which starts from scratch, i.e., requires planning and implementation.

    – Learn about designing software

    – Learn about implementing and testing software

    – Learn about documenting a project and software

    – Get some experience of project management, including time management.

Schedule

- Choosing a topic, DL 5.2
- Prepare general plan, DL 11.2
- Prepare technical plan, DL 15.2
- Plan demo, weeks 8 and 9
- Checkpoint meeting in late March / early April
  – Checkpoint reporting every 2 weeks
- Project submission DL 23.4
- Project demos late April / May

Support

- Exercise groups continue in Periods 3 and 4, Mondays (14-16, T7) and Thursdays (12-14, C106).

- Piazza

- Each topic has a nominated assistant
  - Follows and evauates your project
  - You can discuss the project topic and its interpretation / requirements

- Programming problems to be resolved in exercises and Piazza.

General plan

- Personal information
- Overall description
- User interface draft
- Files and file formats
- System testing plan

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Technical plan

- Program structure

- Use cases

- Algorithms

- Data structures

- Schedule and milestones

- Unit testing

- References

Plan demos

- Weeks 8 and 9
- 10-15 minutes informal personal meeting with the assistant (*compulsory*)
  - To get advice and feedback from the assistant
  - No need to prepare any presentation, just answer assistant's questions
  - Meeting time reservations via Doodle opens on at the latest on 13.2.

Project document

- Personal information
- Overall description
- User's guide
- Program structure
- Algorithms
- Data structures
- Files and file formats
- Testing report

- Known bugs and weaknesses
- Best and weakesrt points
- Reflection on project progress
- Final self-evaluation
- References

Checkpoints

- Late March, early April
  - Personal short meeting with the assistant to discuss project progress (not graded, but compulsory)
  - Every 2 weeks a brief structured report to the assistant by email / web form
    - What has happened, if anything
    - How the project proceeds compared with initial plan for these 2 weeks.

Final submission and demo

- Submission includes
  - Project document
  - Source code
- Assistant will review the submission before the demo session.
- Demo is a 15-30 minute session with the assistant, where
  - You demonstrate the program
  - Answer assistant's questions about your source code and document
  - Get any additional feedback from the assistant.
- Final grades are published only after demos.

Project topics

- 24 ready topics from several themes
  - Games
  - Graphics
  - Simulations
  - String manipulation
  - Statistics
  - Simple text data bases
  - Web sites

Project topics cont.

- Most have different levels (easy, moderate, demanding)
  - Moderate / demanding typically require graphical user interface
  - Some topics require using threads

Own topic

- Suggestions to Lauri Malmi by email by Feb 1st
  - At most 1 page description
  - Should not be old topic used in this course
  - Should have complex enough problem domain for class structure design
  - Should not be too trivial (but not too challenging either)
- Acceptance message and possible refinements to topic will be sent back to you by Feb 4th.
  - Only after this you can select "own topic" from A+ project topic selection assignment.