IMT Atlantique
Bretagne-Pays de la Loire
École Mines-Télécom

Self-assessment guide

Langages et logique – ELU 610

Objectives

This document aims to help you to acquire good practices when programming and providing a deliverable. It gives you several points to check before delivering. Note that all those points are not always mandatory, but all choices of not following the guide have to be reasonably justified.

Having a self-assessment before delivering ensures your product has reached a minimal compliance to standard practices, to school practices, to ELU610's professors practices, and to the project.

Self-assessment checklist

- □ The deliverable has a meaningful name (*e.g.* `NAME1-NAME2-NAME3-NAME4.tar.gz` for this project)
- □ The deliverable is a compressed archive of the top-level working directory (if many files are expected)
- □ The deliverable is organized and structured
- □ The source code is included in the deliverable...
- □ There is documentation
- □ Source code is separated from documentation (*e.g.*, in src/ and doc/ subdirectories)
- □ There is a README file (in French or in English), containing:
  - □ the names of the authors
  - □ a short summary of the project
  - □ the inspiration sources (books, web links, people, etc.
  - □ the explanations to compile, to execute and to test

  - □ a summary of the project structure
  - □ the state of the project (which questions have been answered, etc.)
  - □ known bugs and limitations
  - □ the encountered difficulties [specific to academic projects]

- □ The deliverable uses adequate and inter-operable formats:
  - □ the compressed archive is `tar.gz` or `bz2` format
  - □ README file is a plain text file
  - □ source code is really source code, i.e. plain text files that can be compiled, interpreted, executed (not text copied in a `.doc` or `.ods` file, nor screenshots!)
  - □ for long and/or complex explanations, for answers or explanation containing figures, plain text or `PDF` format is used
  - □ the used encoding is UTF-8 (people should be particularly careful when using non-ASCII characters)

- □ Answers to questions appear clearly within source code comments if they are code-related and short enough, otherwise they appear in a separated document, included in the deliverable [specific to academic projects]

- □ The source code is readable and understandable by someone else:
  - □ the source code is well-indented
  - □ variables and functions have meaningful names (*i.e.* explicit names, *e.g.* `side` for the square side instead of `x` or `a`)
  - □ the source code is written in English
  - □ there are some comments to structure and explain your code
  - □ there are comments to answer code-related questions [specific to academic projects]
  - □ there are not unnecessary comments (comments on each line is probably a bad sign: bad comment or bad code?)
  - □ comments are written *homogeneously* in English or in French, preferably in English [specific to French-speaking academic context]
  - □ a summary of the source code and/or of the structure of the code is available in the README file
  - □ functions are not to long (define what you can reasonably call long)
  - □ remaining long functions are organized in a way to make them readable (group of LoC separated by a blank line, comments, indent, alignment of symbols, etc.)
    - □ in the current case of the ELU610's compilation project, arrows (`->`) and curly braces (`{ }`) in the lexer/parser can be aligned, rules can be regrouped, etc.
  - □ source code files have meaningful names (*e.g.* `parser.ml` instead of `x.ml`)
  - □ file names are consistent with their content (a file named `parser.ml` should effectively contain a parser)

- □ The project is compilable, interpretable, executable *out of the box*, meaning that the reviewer does not have to modify the code in order to test it
  - □ there is a build system/script included in the deliverable
  - □ there are explanations with the exact commands to compile and execute the program (for instance in the README file)
- □ the deliverable is clean: all useless files and files that can be generated have been removed from deliverable