Vision

Goals

- Increase **quality** level of produced software;
- Facilitate **code reuse**;
- Enable easier **integration** of new members.

Overview

Topics in the following four areas of software development are to be discussed and common agreements on them are to be established:

1. **Code** - approaches to code writing that increase consistency of source code, best practices that lower chances of making errors.
2. **Documentation** - what should be documented and how to make the documentation helpful and efficient.
3. **Configuration** - organization of storage and access that enables efficient sharing and reuse of developed software (which includes code, documentation and compiled binaries; probably in several versions) and data (which includes both real world datasets from collaborators and special synthetic datasets).
4. **Testing** - approaches and methods to decrease number of errors and bugs in software. The name is taken with respect to Unit Testing, but also Defensive Programming (in-code checks and guards) deserves attention here; another quite powerful technique is Code Review.

At the group meeting, we agreed that the first two areas deserve more attention from the present moment. In following documents, these topics will be covered in more details. The foundation for these documents is taken from Software Engineering course (a.k.a. Advanced Computer Science) by Peter Baumann, reworked and reshaped based on personal knowledge and experience. There are some C++ specifics, but, in general, they are universally applicable.