# Quality guide for software development

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Luoto Company is committed to meeting the software development objectives together with the client and other stakeholders. In addition to the client's commercial success, we want to promote sustainable software code development under jointly agreed conditions. That's why we consider a transparent definition of quality so important. Above all, we want to succeed in every assignment, which is why we squeezed the combined, over 800–year software–development experience of this team of more than 60 members into the same package. The guide is a practical tool that helps companies take account of quality factors in a transparent way when they are about to develop something new or assessing areas for improvement in an environment of continuous development.
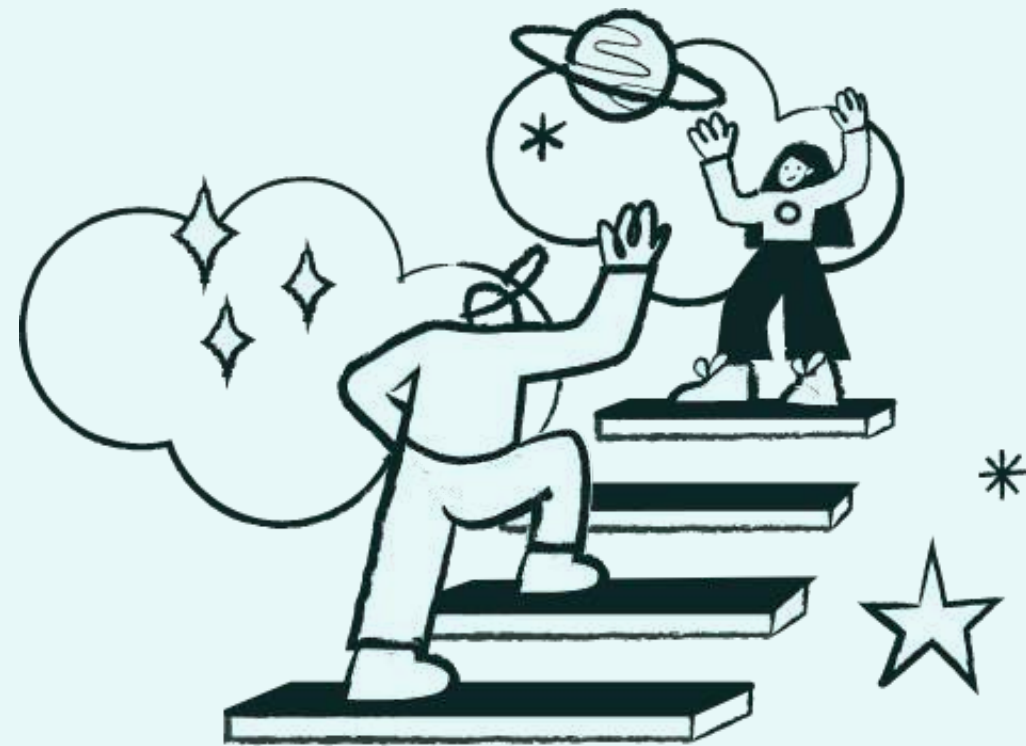
General characteristics of high–quality software

The software logic with its tests is appropriate and easy to understand and modify.

The test code demonstrates the software logic, and the regression caused by the changes is immediately reflected in the development work.

The naming, structure, and abstractions of the software code are consistent and follow well–known software design patterns.
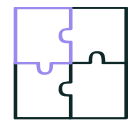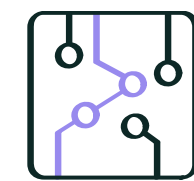
The code strives toward simplicity, containing no unnecessary logic, proactive generalization, development artifacts or additional features.

Security factors of the software have been taken into account in all solutions.

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Key success factors in software development

	NEW		FURTHER DEVELOPED
SOFTWARE	1. The software code has been carefully implemented, tested and monitored from the start.		1. The changes that need to be made in the software are known, and there is a coherent plan for implementing them.
	2. All functionalities have been implemented as individual entities and so that they are ready for production.		2. All development work contributes to the planned changes and always improves the quality of the code.
	3. All software logic has been kept as simple as possible and only been implemented for immediate need.		3. The test coverage of the functionality to be changed or refactored has been verified before implementing the change.
	4. The need for refactoring and changes is met immediately after being detected in the code.		4. The effects that the changes to be implemented will have on the surrounding code (or data) are known, and the changes are implemented in a controlled manner.
	5. Each implementation and change can be immediately tested and verified in all environments.		5. Changes are implemented in as small entities as possible, and the entities are put into production immediately after their completion.
PROJECT	1. The purpose, users and life cycle of the solution to be implemented are known.		1. The life cycle of the software is clearly known and changes towards the end of the life cycle have been carefully considered.
	2. The team has the same view of the solutions and dependencies related to the entity to be implemented.		2. The development team and stakeholders agree on the status of the software and the changes that need to be made in the software.
	3. The team is responsible for the technical implementation and can make decisions regarding the technical implementation and the related methods.		3. Communication between the development team and stakeholders is ongoing and any findings are discussed as soon as they occur.
	4. The client is committed to the development work and available for support during the development phase.		4. The identified needs for change are always pursued while providing added value.
	5. Both parties communicate immediately and honestly about any problems and successes.		5. The business needs or creation of added value shall not be unrealistic or more significant than the need for change.

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