



## Architectural Thinking for Intelligent Systems, WS 2019

### Assignment 3

#### Task Description for Lecture A4: Understand Project Forces, Architectural Concerns and Decisions

We begin to understand the various forces that influence our project and the concerns that we need to address. We create an initial list of decisions, which have to be taken and understand how they relate to each other. We explore potential decision alternatives and take an educated guess of the expected outcome.

- 1) Who are the most relevant stakeholders?
- 2) What aspect of the system is of particular importance to which stakeholder?
- 3) Which constraints apply to your project?
- 4) Create an initial list of functional and non-functional requirements. Give intuitive names to these requirements and write a short description, but do not work them out in detail.
- 5) Create a glossary of the most important business terms.
- 6) Identify business capabilities that your system will support.
- 7) Collect architectural decisions you will have to take. List these decisions. Which ones involve most of the risk given your current understanding of the system?
- 8) Draw an overview diagram of your decisions using the relations *contains*, *decomposes into*, and *incompatible with*.
- 9) Identify forces behind decision alternatives.
- 10) Take two of your most risky architectural decisions and specify them according to ISO standard 42010 showing concern, alternatives, outcome and rationale. What do you need to do in order to evaluate your alternatives or find new ones? Given your current understanding of the system architecture, decide for an outcome and describe the rationale.

#### Submission

Instructions can be found in slide deck A1-BasicConcepts and on the course website.