Technische Universität München
Fakultät für Informatik

Tutorial 3: quality model, artefact- vs activity-orientation, AMDiRE

This exercise sheet covers the contents of the **2nd and 3rd lecture**.

Exercise 1 Qualitätsmodell von Anforderungen (Analyse)

Im Rahmen der nächsten Übungen wird die Qualität von natürlichsprachlichen Anforderungen anhand einiger Beispiele betrachtet.

Überlegen Sie sich nun zunächst, welche Qualitätskriterien für Anforderungen in natürlicher Sprache gelten. **Erstellen Sie auf dem Flipchart / Whiteboard / in einem Tool Ihrer Wahl ein Qualitätsmodell, in dem Sie diese Merkmale strukturieren.**

Exercise 2 Quality Standards (Understanding)

In the lecture, ISO/IEC/IEEE Std. 29148 was introduced as the quality model for requirements

a) What are advantages of a standardized quality model?

b) What are disadvantages of a standardized quality model?

c) For each aspect of ISO/IEC/IEEE Std. 29148, think about an example requirement violating it.

Exercise 3 Artefact-orientation in related fields (Understanding)

While we put specific focus on artefact-oriented and activity-oriented methods, these techniques exist implicitly in other domains as well:

1. In database queries, there exist at least three strategies how to specify search results: tuple calculus, domain calculus and relational algebra. Quickly recap how each of them specifies the results of a query. Which strategy is *activity-oriented* and which is *artefact-oriented*?

2. Is Scrum an activity or an artefact-oriented process framework? Which artefacts are specified (and required!) by the Scrum framework, which activities are required?

3. Think about your last major university projects (practical course, seminar, bachelor's thesis). Recap how the advisors specified the expected results and categorize the approach (activity or artefact-oriented). Where would you have taken the same approach, and where a different one? Why?

Exercise 4 How to achieve flexibility: artefact-orientation vs 'no documentation' (Discussion)

Comment on the following statement:

In agile software development, flexibility is achieved, among other things, by reducing the number of artifacts to be created. Consequently, the statement artifact orientation increases flexibility *from the lecture is false.*

The lecture briefly introduced AMDiRE, which includes an artifact model for the relevant results of the RE core activities. If needed, additional information can be found at Mendez et al..

1. Explain the basic levels of the AMDiRE model and outline the goals, content, and involved stakeholders of each item.

2. Outline at least four aspects how you would use this model in a project with several project partners and a large development team distributed in terms of roles and locations. Specify the required content items, including appropriate representations (e.g., textual, models).

3. Discuss two issues that may arise in the process.