

Rubric Report R1, Problem Analysis

	Level 1 -- Outstanding (3 points)	Level 2 -- Good (2 points)	Level 3 -- Weak (1 point)	Level 4 -- Missing No points
Problem description rigor	Compelling, coherent analysis of a convincing and challenging problem	Adequate analysis of a problem relevant to software architecture	Little value added by the problem description to what is already known	Overall report weak and unconvincing
Use of domain analysis techniques	Exemplary and in depth use of range of analysis techniques covered in course and in literature. Clear which techniques were chosen (with references) and why, and how they contribute to overall story	Adequate use of relevant analysis techniques	Superficial use of domain analysis techniques that adds little value	The report shows very little evidence of engagement with material as discussed in course
Model quality	Relevant models (e.g., context, domain class / interaction diagrams) and diagrams, well integrated in the text, used to illustrate key points.	Good models, but only weakly connected to the main storyline	Few or superficial models, that add little to the overall story	No models
Writing clarity	Clear and carefully worded writing with authentic tone and coherent paragraphs; adequate use of references in application domain or software architecture literature	Clear and professional writing, but not very engaging. Indicator can be overuse of series of bullet points with insufficient connections.	Adequate writing with mostly correct sentences, but with insufficient connections between paragraphs and insufficient coherence within paragraphs.	Sloppy writing with mistakes in e.g. grammar or formatting.

Rubrics Report R2, Architectural Description

	Level 1 -- Outstanding (3 points)	Level 2 -- Good (2 points)	Level 3 -- Weak (1 point)	Level 4 -- Missing No points
Overall architectural description rigor, coherence, and storyline	Compelling, coherent, and rigorous; description of an architecture that realizes the system proposed in R1. Includes a careful consideration of stakeholder needs and (possibly conflicting) quality attributes	Adequate presentation of an architecture for the required system. Improvements possible in terms of, e.g., coherence, depth, or choice of topics covered.	Superficial presentation of an architecture. Appears to be in the right direction, but lacks in rigor; Not sufficiently clear how it will meet needs expressed in problem analysis.	Overall architectural description weak and unconvincing
Use of architectural analysis patterns, methods, and techniques	Exemplary and in depth use of range of architectural analysis and design techniques covered in course and in literature; Clear which techniques were chosen (with references) and why, and how they contribute to overall story	Adequate use of relevant architectural analysis and design techniques. Improvements possible in terms of cohesion or depth of the analysis.	Superficial use of architectural analysis and design techniques adding little value.	The report shows very little evidence of engagement with material as discussed in course
Model quality	Relevant models (e.g., container, component, class, interaction diagrams) and architectural views, well integrated in the text, used to illustrate key points.	Good models, but only weakly connected to the main storyline	Few or superficial models, that add little to the overall story	No models
Writing clarity	Clear and carefully worded writing with authentic tone and coherent paragraphs; adequate use of references in application domain or software architecture literature	Clear and professional writing, but not very engaging. Indicator can be overuse of series of bullet points with insufficient connections.	Adequate writing with mostly correct sentences, but with insufficient connections between paragraphs and insufficient coherence within paragraphs.	Sloppy writing with mistakes in e.g. grammar or formatting.
Elaboration of key architectural decision point	Important and challenging decision point selected, with in depth analysis of four alternatives, and a well-motivated choice among them.	Adequate description of an architectural decision point and four alternatives. Improvements possible in terms of rigor or relevance to a decision in the overall architecture.	Superficial description of architectural decision point, with weak analysis of some of the alternatives.	Missing description of architectural decision point and possible choices
Relevance and quality of the proof of concept as described in the report	Clear and convincing proof of concept explained at the right level of abstraction and supported by insightful diagrams, well connected to a key architectural decision.	Adequate description of an interesting proof of concept. Improvement possible, e.g., in terms of rigor, or relevance to a decision in the overall architecture.	Superficial description of a proof of concept, with a weak connection to the overall architecture	Missing description of the proof of concept

Rubric Proof of Concept

	Level 1 -- Outstanding (3 points)	Level 2 -- Good (2 points)	Level 3 -- Weak (1 point)	Level 4 -- Missing No points
PoC objectives and relevance to architectural decisions	The PoC comes with a clearly articulated goal, which when achieved will help resolve a challenging and relevant architectural decision.	There is an explicitly stated goal, but a relatively simple PoC and analysis would be sufficient to meet the stated goal.	The stated goal is trivial or contributes little to the architectural decision making	There is no stated objective for the PoC, or it is unclear what the PoC is supposed to bring.
Depth and rigor of the constructed PoC	The PoC is exemplary, thoughtfully designed, and convincingly supports the architectural decision making process related to the stated goal of the PoC.	The PoC is a working system or interface design that adds relevant insight to the architectural decision making process.	The PoC yields a working system or interface design that could contribute to the given (or apparent) goal of the PoC.	The PoC is trivial to construct and unsuitable for any architectural analysis.
Depth and rigor of the experiments conducted using the PoC and the lessons learned from it	The PoC is used to draw compelling lessons, by means of carefully conducted experiments or analysis, critically reflecting on the results, and well presented using relevant visualizations	The PoC is used to conduct measurements and draw lessons. Overall good, bug improvements possible in terms of, e.g., critical reflection of the results, depth of the analysis, or rigor of the measurements.	The PoC was used to conduct light weight measurements or analysis, and some reflection on e.g. feasibility	A PoC has been constructed, but it was not used to conduct experiments or draw lessons.
Use of sound engineering practices	The proof-of-concept follows sound engineering practices, including automated testing, CI/CD, containerization, code review, and clearly documented design choices, making the PoC understandable, modifiable, and the results credible reproducible	Adequate use of engineering best practices. Room for improvement of existing practices or adoption of more practices	Superficial or limited use of engineering best practices in terms of amount and depth/quality	The PoC fails to meet minimum engineering standards, such as the use of CI/CD, four eyes principle in reviewing, documentation, testing, or reproducibility.