Patient Monitoring Service (PMS)

Part 1: Part 1: instructions

The project involves the development of the PMS platform as described above. In part 1 of the assignment, you will identify and prioritize **architecturally-significant requirements** (ASRs) and document the most important ones as **Quality Attribute Scenarios** (QASs).

A. Identification of ASRs and Utility Tree

- Study the description of the application case carefully. (Use the self-test available via Toledo to get feedback on how well you understand the problem domain.)
- Make a longlist of architecturally-significant requirements that will affect the development of the described system. (Refer to lecture 2 for some pointers and strategies on how to identify the relevant requirements.)
- Provide a short description or summary paragraph (1-2 sentences per identified ASR) about the nature of the requirement and the constraints it imposes on the system. Make sure to including a measurable or verifiable condition that allows assessing when the requirement is met.
- Per ASR, include your assessment of (a) the business value and (b) the architectural impact (both on a [H,M,L] scale), and shortly outline your reasoning behind this.
- Structure your ASRs in a Utility Tree.

B. QAS Documentation

- Select **four** of the **most highly ranked non-functional requirements** from the utility tree and describe them in detail as quality attribute scenarios.
- If they are ranked similarly, try to document as many different types of quality attribute as possible (diversity).
- Adhere to the template for quality attribute scenarios[1]: (i) **Source of stimulus**; (ii) **Stimulus**; (iii) **Environment**; (iv) **Artifact**; (v) **Response**; and (vi) **Response measure**.

Format of the report Integrate the results in a coherent document. Adhere to the following structure:

- **A. Utility tree of ASRs**. Per ASR:
  - Summary paragraph (what is the requirement about?). Be short but precise.
  - Prioritization (Business value, architectural impact): shortly explain why.
- **B. Quality Attribute Scenarios**. Detailed scenario descriptions.

A LaTeX template that imposes the requested structure is available on Toledo. It will greatly help you in documenting these ASRs and QASs in the correct structure.

Submit the PDF report via Toledo. The deadline for this is **Wednesday, March 9, at noon**.

Good luck,
The SA team.

[1] For more information about the format in which quality attribute scenarios are documented, refer to the book of Bass, Clements and Kazman "Software Architecture in Practice, 3rd ed.", Part 2 (Quality Attributes). (Available on Toledo)