Berner Fachhochschule
Haute école spécialisée bernoise
Bern University of Applied Sciences

Software Engineering and Design
Case Study 2

Prof. Dr. Jürgen Vogel (juergen.vogel@bfh.ch)
Prof. Urs Künzler (urs.kuenzler@bfh.ch)

CS2 Task 1: Elaborate Use Cases

Given the Personal Insulin Pump (PIP) description in the CS2 introduction, try to identify the most common uses cases looking at the PIP system from a user's perspective.

1. Start by identifying the potential users of the system and try to elaborate the common use cases for each user type.
2. Draw a use case diagram, which shows the involved users and their use cases and indicate the system boundary of what the PIP is actually doing.
   - Investigate if there are dependencies (i.e. include, extend relationships) between the uses cases in the diagram.
3. Take one or two use cases and write a detailed use case scenario for these use cases, including exceptions and/or error conditions.

CS2 Task 2: Elaborate Activity Diagram

- Given the Personal Insulin Pump (PIP) description in the CS2 introduction and the use case scenarios of CS2 Task 1, elaborate an activity diagram for one of the use cases for which you detailed a scenario.

CS2 Task 3: Elicitate Requirements

Given the description of the Personal Insulin Pump (PIP) in the CS2 introduction and your results from Tasks 1 and 2, try to elicitate the requirements.

- Start with 2-3 high level user requirements.
- From the given PIP description, elaborate high level system requirements.
- Try detailing these system requirements into:
  - Functional Requirements
  - Non-Functional Requirements
  - Domain Requirements

    gesetzliche Vorgaben

Alarm, Blutzuckerspiegel messen, Schnittstelle zum Benutzer, Reportingfunktion (Verlauf), mögliche Fehlerfälle (wie verhalten)

Kein Wegwerfgerät, auffüllbares Reservoir, eher klein, Energiezufuhr (Batterie wechselbar), Betriebstemperatur, Verlässlichkeit, Performance, Storage, wie wird der Alarm ausgegeben, wohin, IDE, Programmiersprache, agile?