CS2 Task 1: Requirements

# User requirements

* The PIP shall monitor the blood sugar level and keep it at a safe range
* Notification if
  + a critical situation occurs (e.g. blood sugar level too high/low)
  + something is not working properly (e.g. malfunction of the pump)
  + a resource is running low (e.g. battery, insulin)

# System requirements

## Functional

* The PIP monitors the blood sugar level of the patient
* If required the PIP injects insulin to keep the blood sugar level at a safe range
* Log all activities
  + measurement of blood sugar level
  + insulin injections
  + alerts, etc.
* Sufficient storage has to be available
* Alerts patient if the blood sugar level is dangerously low/high and cannot be stabilized
* Ability to perform a self-check
  + sufficient battery and insulin supply, pump functionality, etc.
  + alerts patient if system is not working properly or a resource is running low
    - audible, visual and vibrating alerting

### Detailed functional requirements

* the detailed process of measuring and injection cannot yet be defined, more information from a specialist is needed

## Non-Functional

* Battery can be replaced in a simple manner
* Insulin storage can be refilled in a simple manner
* Export logfiles for further analysis
* Patient must have an introduction on how to use the system and what action to take if a critical situation occurs

## Domain requirements

* specification
* to obtain the necessary information about the insulin injection, a specialist has to be consulted