**Alert Generator System – UML state diagram explanation**

For illustrating the lifecycle of an alert using a state diagram, we used 4 different states of an alert: “*Generated*”, “*Sent*”, “*Acknowledged*” and “*Resolved*”. We also used the following logic when creating the diagram: the cycle starts when the system detects that some data about a patient meets a predefined threshold criteria. The alert is then in the “*Generated*” state. After this, if this same type of alert has not been acknowledged yet by the medical staff, the alert is sent to the designated medical staff. The alert is now in the “*Sent*” state. Now, there are two ways for the medial staff to acknowledge the alert: manually, by clicking on the receipt of the alert, or automatically, by opening the patient’s detailed view on their device. The alert is now in the “*Acknowledged*” state. Now, if the medical staff assesses the patient and perhaps adjusts their treatment, then they can confirm the alert no longer exists, so it moves to the “*Resolved*” state. The alert can now only leave this state when the data would meet the threshold again. The alert would then move back to the “*Generated*” state.

In the states “*Generated*”, “*Sent*”, “*Acknowledged*” is also possible to go directly into the “*Resolved*” state when the patient’s condition stabilizes automatically without interference of the medical staff.