**What**
A bed management system for assuring hospital-wide effective bed utilization with robust tools for real-time monitoring and retrospective statistical analysis of the use of available bed fund.

**Why and for whom**
Bed management is the ability for a healthcare facility or system to have real-time operational awareness of the status of all of its available beds and to be able to plan for the expedient use of beds through coordination of the bed turnover process. Beds are a scarce resource, and the limitation of access to beds leads to delays and waste within healthcare systems ([https://wiki.ihe.net/index.php/Bed_Management](https://wiki.ihe.net/index.php/Bed_Management)).

The biggest group of users of the system is nurses responsible for patient admission, transfer and discharge. Information about available beds meeting specific criteria is also critical for Emergency Department personnel or any other department dealing with patients having acute health problems and therefore need to switch quickly between different treatment phases and profiles. Overview of the bed fund usage in general, spotting waste and delays in different steps of the processes is crucial for the managers up to the highest level.

**Expected outcome**
An MVP (preferably a web application built on Angular) making use of some predefined external resources (structure unit, ward, patient information will be available using respective REST services) that provides convenient tools for bed fund administration (defining beds, their properties, physical location, etc) and real-time bed state documentation - allocation on patient admission and freeing up at patient discharge, etc. The more precise scope of the system functionality and possible integrations to other systems (incl. user authentication) is to be agreed on with students.

**Conditions**
Any outcomes produced by the student team under and within the framework of the Software Project and any transferable intellectual property rights related thereto, incl. all the economic rights of the author and rights to protect intellectual property are transferred to Tartu University Hospital from the moment of creating them.

**Benefits**
In case the MVP looks promising and the team is ambitious enough further development (making it tightly integrated part of the hospital IT ecosystem and adding functionality to it) may be bought according to market conditions.

**Contacts**
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