

# Matching (engineering) problems to competence profiles

## Students



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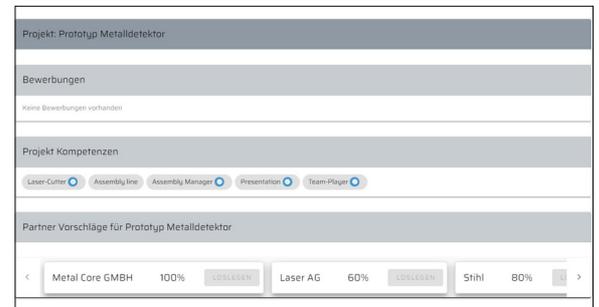
**Introduction:** The company PATRIZ AG is establishing a new platform for crowd-engineering. A base frame with a project and user management system has been setup by a preceding bachelor thesis. The goal of this term paper is to extend the platforms functionality with a competence ecosystem, a feedback option and a matching logic. The competence system applies to users and projects, meaning both can possess competences. Concerning feedback, users should be able to voice their opinions to PATRIZ AG so the platform can improve. The matching logic is the connecting link between projects and users, which generates matches based on their competences.

**Approach:** First, functional requirements are elaborated and specified. For the implementation of the competence system a data model has to be created to support a tree data structure and CRUD-operations. The tree will be used to store connections between competences and their respective categories. To manage the competence system an admin interface will be implemented to enable CRUD-operations and to manage the tree. Furthermore, a project and user front-end for the competences will be implemented. For the feedback system, the data model has to be extended to support CRUD-operations for the feedback entity. User can submit feedback via the front-end and admins can view all feedbacks via an admin page. The matching logic uses selected competences for a project and maps those onto user competences to show potential partners.

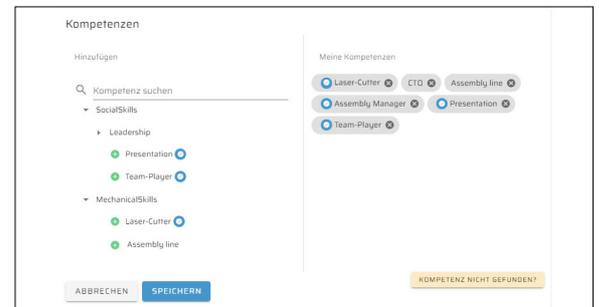
**Result:** The users now can add competences to their profiles. Customers now can assign needed competences to their projects. This process is directly integrated in the existing process of the project

creation via the project creation wizard. This enables a matching which now allows to see potential partners for a project based on the competences. Furthermore, an easy handling of those competences and categories is possible with the introduction of an admin and the corresponding interface. The whole feedback process has been realized as well, allowing a fast and organic exchange between the users and PATRIZ AG.

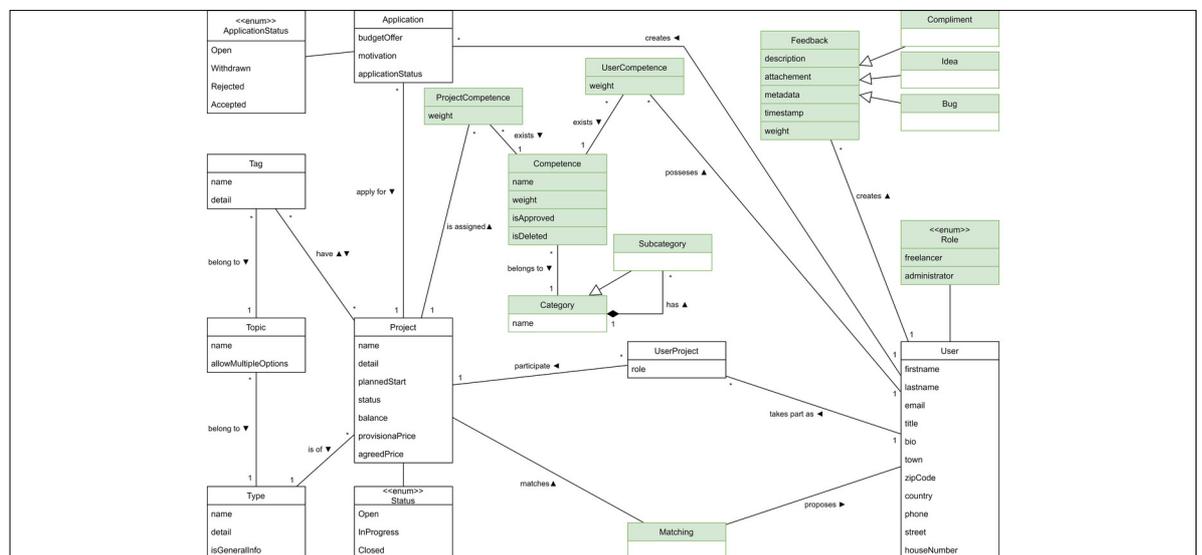
## Partner Suggestion View Own presentation



## Competence Tool Own presentation



## Domain Model (new entities marked green) Own presentation



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Application Design,  
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