

TOPIC FOR A BACHELOR-/MASTERTHESIS

# DECISION SUPPORT SYSTEM FOR BUSINESS MODELING BASED ON FEATURE MODELS

PROF. DR. GREGOR ENGELS, DATENBANK-UND INFORMATIONSSYSTEME

## Motivation

The continuous generation of new business model ideas is an important task for a company to stay competitive. During this process, the company can use various best practice examples of other companies in form pattern cards [1]. To represent business models for idea generation, the Business Model Canvas [2] is mostly used. In the past, we have used the concept of feature models to represent the variability of a business model [3]. Moreover, we have developed a first version of a feature model editor [4] for business models in Angular (see Figure 1). The goal of this thesis is to conceptualize and implement a decision support tool, which can support business developers by automatically applying the various business pattern for improving feature selection during the ideation phase. These patterns can be generalizable to all business models or depending on the context of the business.

## Tasks

- Literature Review on Business Models & Feature Models
- Conception and Design of the Algorithms and the Tool
- Implementation of the Algorithms and the Tool in Angular
- Evaluation in a Case Study

## Sources

- [1] Business Model Pattern Cards:  
<https://bmlab.com/pattern-cards>
- [2] Osterwalder et al.: Business Model Generation (2010)
- [3] Gottschalk et al.: Intertwined Development of Business Model and Product Functions: A Twin Peak Feature Modeling Approach (2019)
- [4] BMDL Feature Modeler:  
<https://sebastiangtts.github.io/bmdl-feature-modeler/>

## Further Information

The topic can be taken as a bachelor- or master thesis. It is possible to write this thesis in German or English. The requirements for the topic are passed courses of Data Mining (bachelor) or Machine Learning I (master). Please write in your application shortly why you are interested in the topic and what further experience you have in the field. Before the proposal process, there will be a short test (consisting of general questions, your understanding of the topic and a small programming task) to see if you are the right person for the topic.

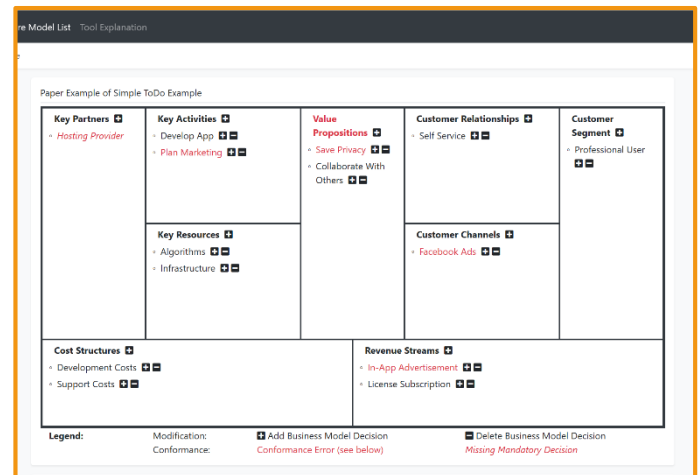


Figure 1: First Version of our BMDL Feature Modeler