



# KI in der Verwaltungspraxis? Logisch!

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# Herausforderungen

- Pensionierungs潮le und schrumpfender Talentpool
- Traditionelle IT-Lösungsarchitektur mit maßgeschneiderten Anwendungen erschweren schnelle Umsetzung neuer Gesetze und Richtlinien
- Anforderung, neue Regeln schnell anzupassen
- KI kann helfen, aber wie soll das ethisch und transparent bei GenAI funktionieren?

# KI in der Verwaltungspraxis - Rahmenbedingungen

## Vision:

Wo möglich sind Regeln/Gesetze

- öffentlich einsehbar,
- in einer formalisierten, logikbasierten, ausführbaren Regeldarstellung,
- mit einer klar definierten Semantik gegeben.

Regeln/Gesetze und deren ausführbare kodierte Darstellung haben denselben Stellenwert.

Transparenz

Nachvollziehbarkeit

Vorhersehbarkeit

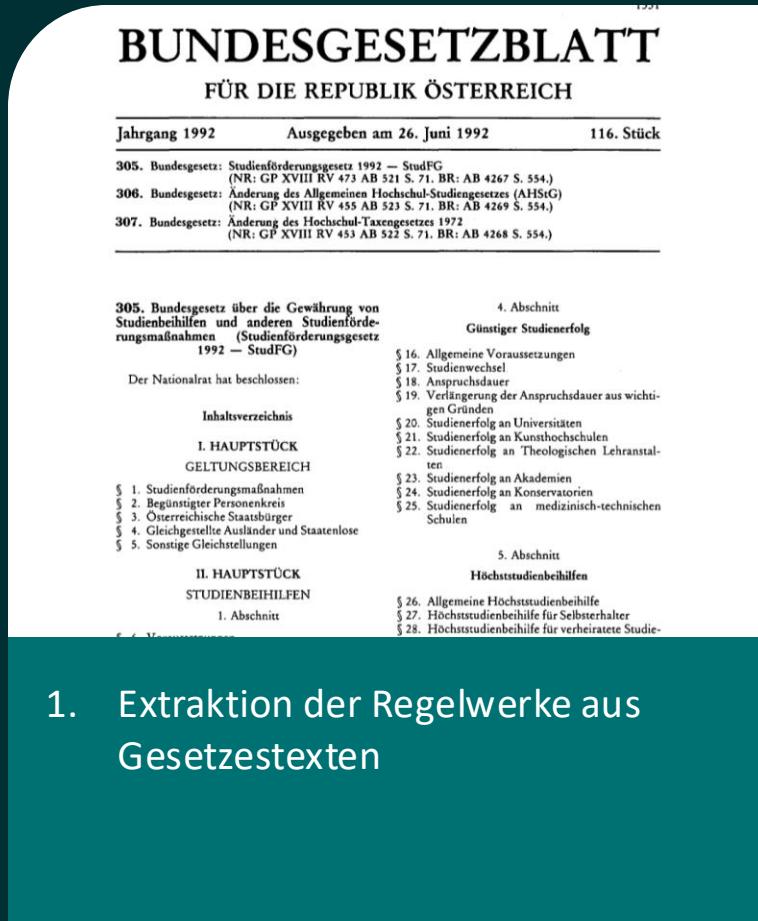


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# Transparente Nutzung von KI in drei Schritten



1. Extraktion der Regelwerke aus Gesetzestexten



2. Prüfung und Freigabe der Regeln von Juristen oder Fachexperten bzw. Anpassung bei Bedarf



3. Verarbeitung der Regeln durch Anfrage aus einem Eingangskanal (wie z.B.: einem Chatbot oder einer Fachanwendung)

# Projekt „Law as Code“ im Bundesministerium für Finanzen

*„Ziel des Projektes ist die auf logischen Programmierparadigmen der symbolischen Artificial Intelligence (AI) basierende Schaffung von Grundlagen zur technischen Umsetzung von Gesetzen und anderen rechtsverbindlichen Dokumenten, sowie deren technische Integration in das E-Government, im Speziellen in die österreichischen Verwaltungsverfahren und in die europäischen Interoperabilitätsmaßnahmen.“*

- **Analyse** der notwendigen Grundlagen aus technischer sowie rechtlicher Sicht
- **Showcase** des Potentials des „Law as Code“-Ansatzes in einem PoC:
  - End-to-end Betrachtung: Erstellungsprozess bis zur Integration in Verwaltungsverfahren
  - Zentrale Komponente: regel- bzw. logikbasierter Reasoner
  - Regelbasen für Beispielverfahren

Projektpartner:



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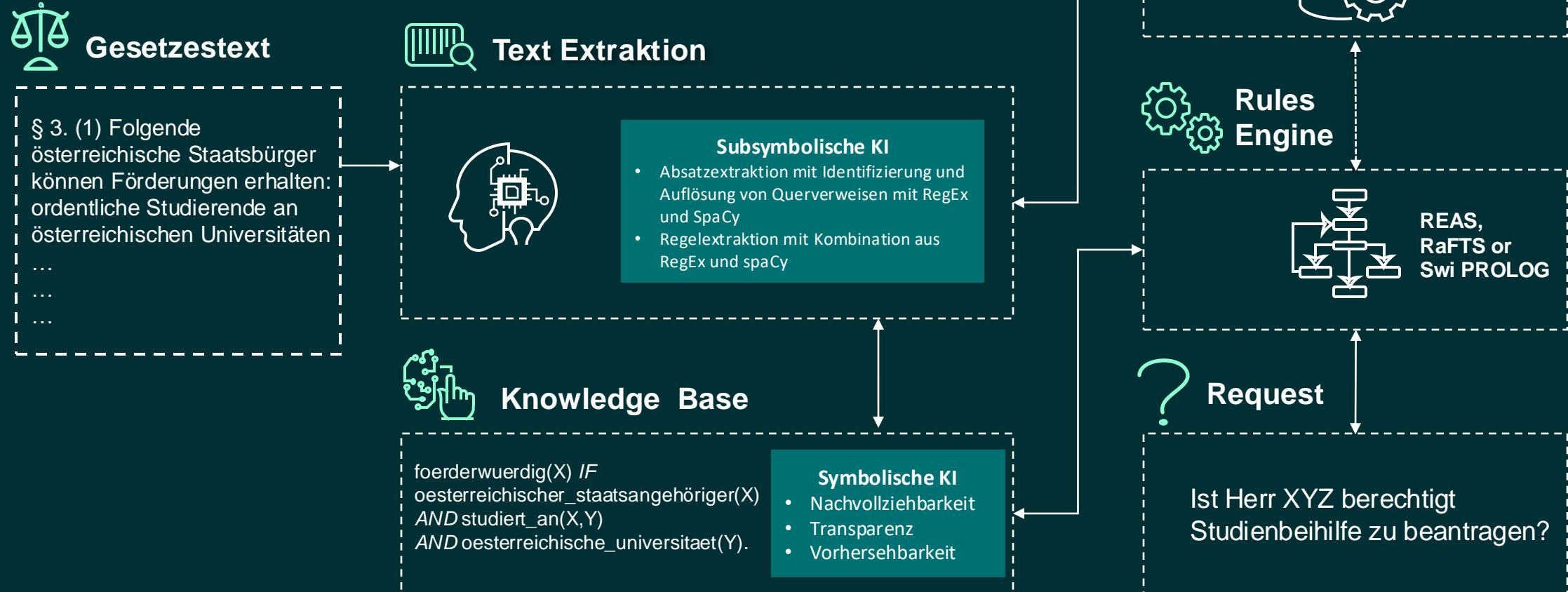


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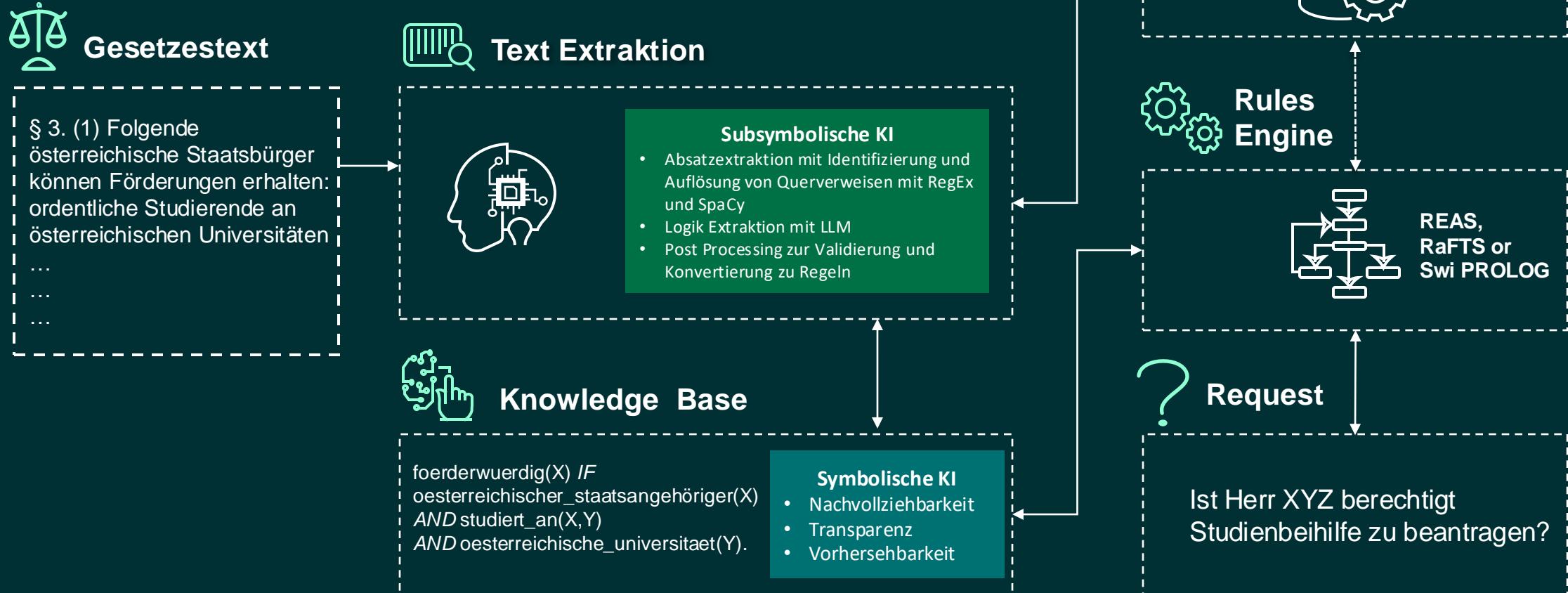
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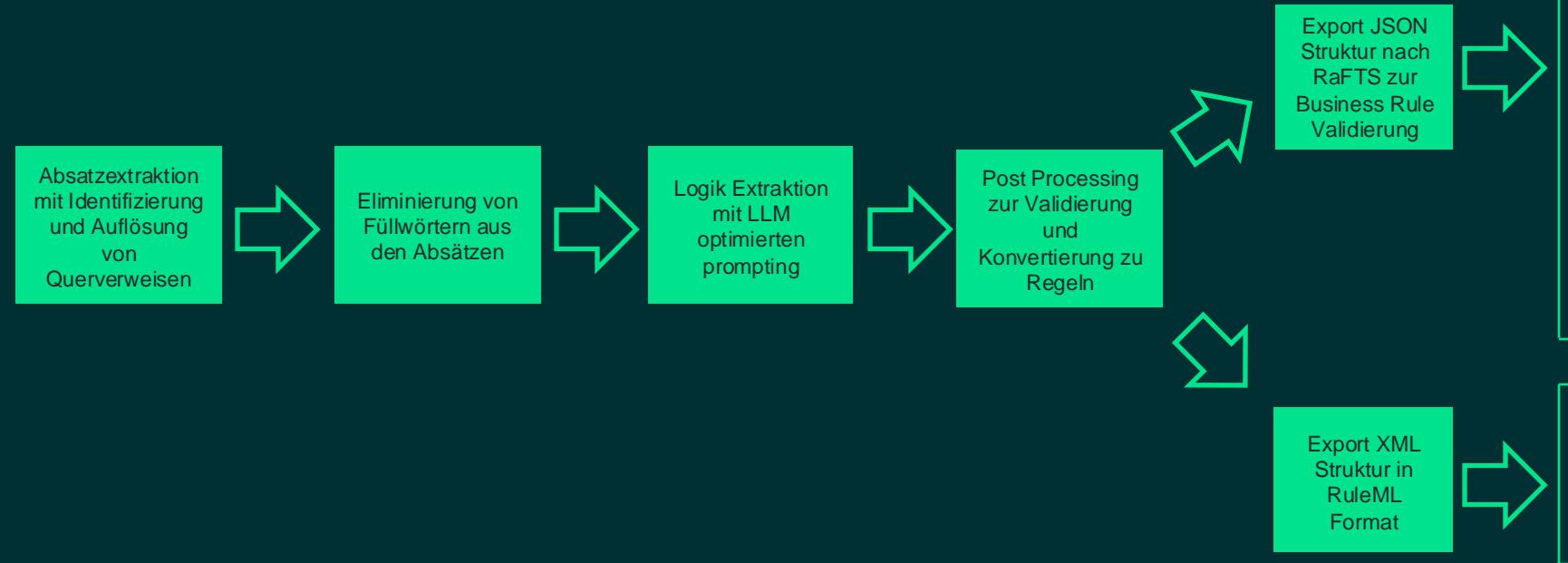
# Lösungsansatz im PoC „Law as Code“ im BMF



# Lösungsansatz mit GenAI LLM Smart Rule Law as Code



# Detailschritte der Business Rule Regelextraktion mit GenAI LLM Smart Rule Law as Code

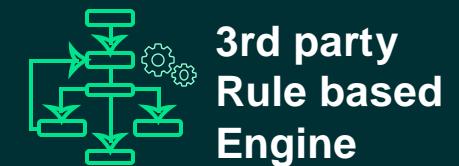


## Business Rule Validierung

This screenshot shows a user interface for rule validation. It displays a hierarchical tree of rules under 'Vertical Layout'. One rule is expanded, showing its preconditions and conditions. To the right, there is a detailed log of validation steps, including various error and information messages related to student enrollment rules.

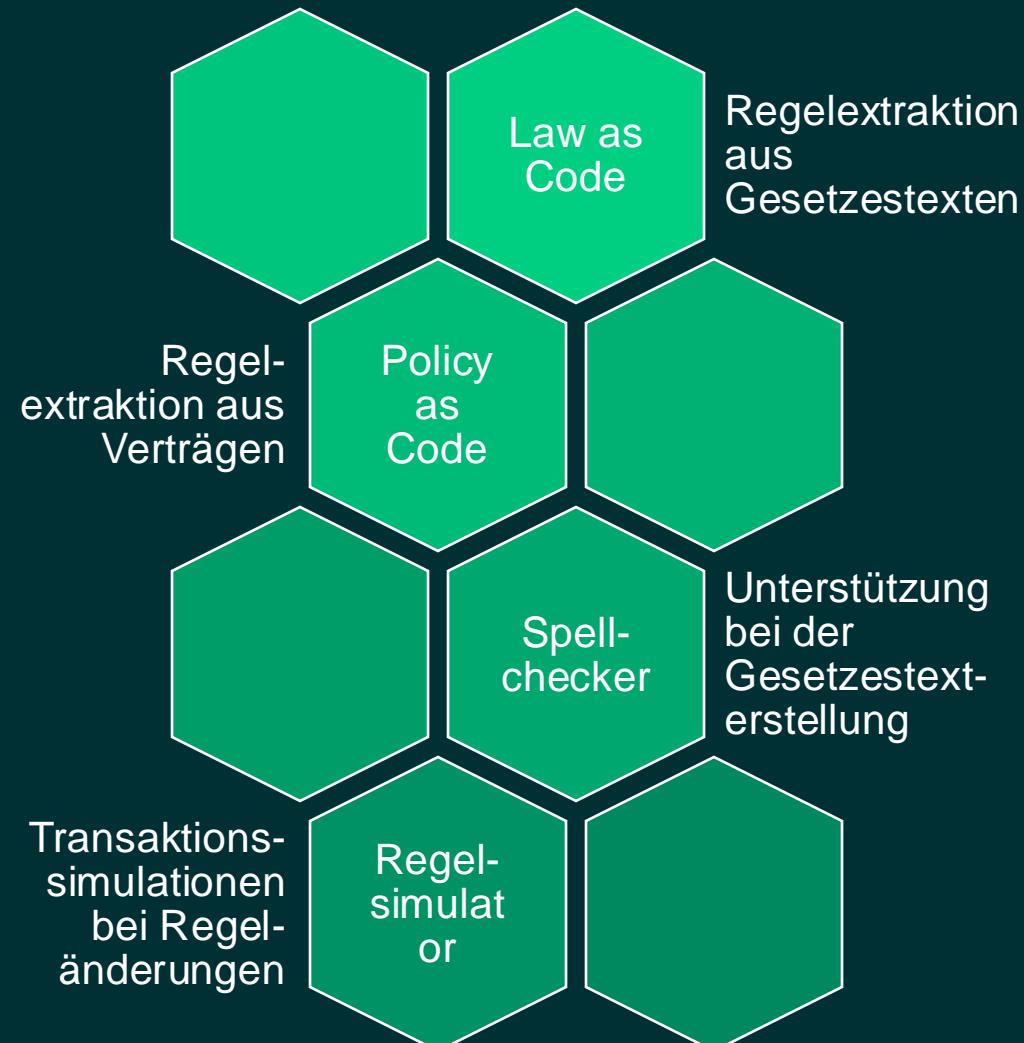
This screenshot shows a table titled 'Application List' from the RaFTS Rule based Engine. It lists applications with columns for Ref No, Social Security No, First Name, Last Name, Address, Salary, Date, Age, and Application Type. The table includes several entries for different family members.

## RaFTS Rule based Engine



3rd party  
Rule based  
Engine

# Weitere Anwendungsbeispiele für KI im Bereich „Law as Code“



# Demo

Package Name \* family\_allowance Rule Type \* Risk Validation Description Family allowance Select Modality \* Law As Code

Risk Category \* Law as Code Risk Sub Category \* Family Allowance Clients Client 1 Action \* true

Level \* 1 Package Threshold Score \* 1

FILTERS RULES RULE VIEWER

Text View Graphical View Prolog View

Vertical Layout

Add New Rule

Pre-Conditions

Entity Field Name Operator Comparison Field

Person Application lives\_in\_Austria is equals Family Allowance

OR

Second\_IF\_age Person, age < 19

Third\_IF\_part\_1\_studying AND

Person. age >= 19 Person. age < 24 Person. is\_studying is True Person. salary < 15000

Third\_IF\_part\_2\_social\_service

**family allowance**

§ 2.

(1) Persons who have their place of residence or their habitual abode in the federal territory are entitled to family allowance.

a) for minor children,

b) for adult children who have not yet reached the age of 24 and who are being trained for a profession or are being trained in a profession they have learned at a technical school if attending school means that they are unable to practice their profession. In the case of children of full age who attend a facility specified in Section 3 of the 1992 Study Support Act, Federal Law Gazette No. 305, vocational training can only be accepted if they do not exceed the planned study time per study section by more than one semester or the planned training time by no more exceed one year of training. If a study section is completed within the planned study time, a semester can be added to a further study section. The period of study is extended by an unforeseen or unavoidable event (e.g. illness) or proven study abroad. A study disability of three months results in an extension of the study period by one semester. Times as a student representative according to the 1998 Student Union Act/Federal Law Gazette I No. 22/1999, taking into account the function and the time required, up to a maximum of four semesters are not to be included in the maximum permissible period of study provided for obtaining family allowance. The same applies to the chairman and spokespersons of the dormitory representatives according to the Student Residence Act, Federal Law Gazette No. 291/1986. The Federal Minister for the Environment, Youth and Family has to lay down the detailed requirements for this non-inclusion by ordinance. Periods of maternity protection as well as the care and upbringing of one's own child up to the age of two hamper the course of the study period. In the event of a change of course, the regulations listed in Section 17 of the 1992 Study Support Act, Federal Law Gazette No. 305, also apply to the entitlement to family allowance. Admission as a regular student is a requirement for the first year of study. Entitlement from the second year of study only exists if for a previous academic year the completion of a partial examination of the first diploma examination or the first rigorous or examinations from compulsory and elective subjects of the pursued course of study with a total scope of eight semester hours per week or 16 ECTS points can be proven; The same applies if all courses and examinations of the introductory and orientation phase according to § 66 of the Universities Act 2002, BGBl. I No. 120/2002, have been successfully completed, provided that they are rated with at least 14 ECTS points. Proof must be provided, regardless of a change of institution or course of study, in the form of confirmations from the institutions named in Section 3 of the 1992 Student Support Act. For an

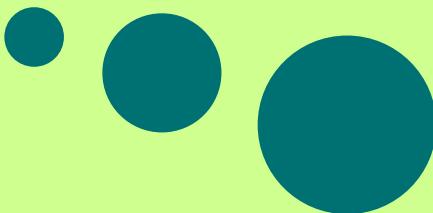


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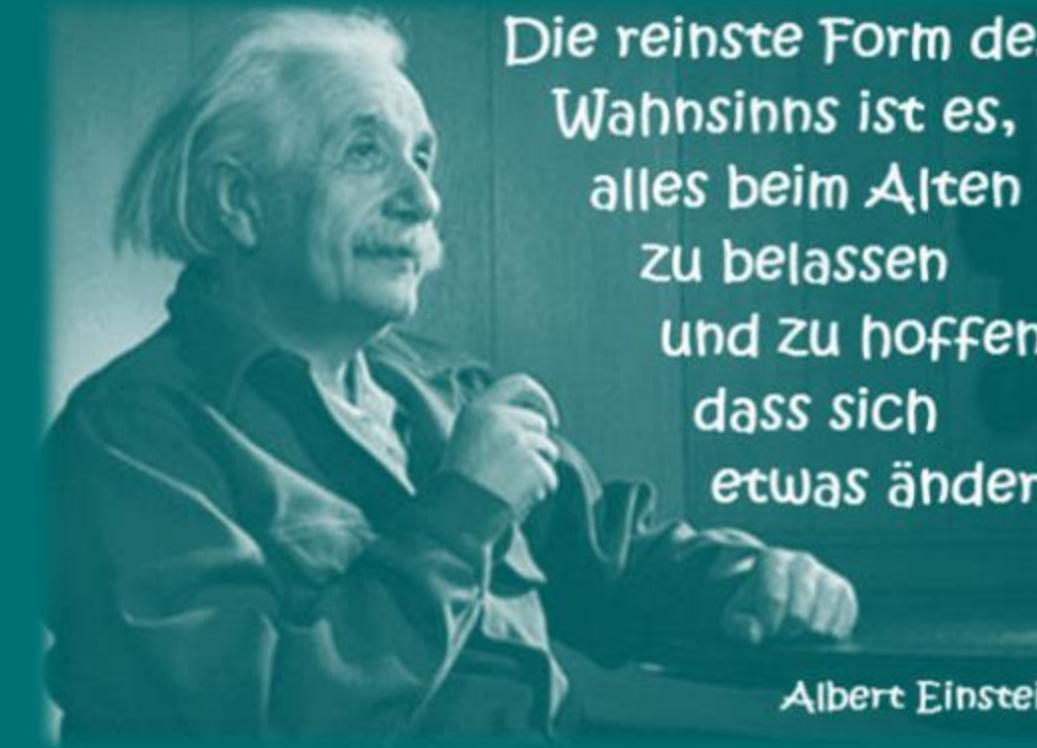
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# Denken Sie daran



...oder vielleicht in diesem  
Falle - ... und zu hoffen,  
dass sich **nichts** verändert...



# Vielen Dank!



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