



Web Logic Programming Connected To Python

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Intelligent Systems
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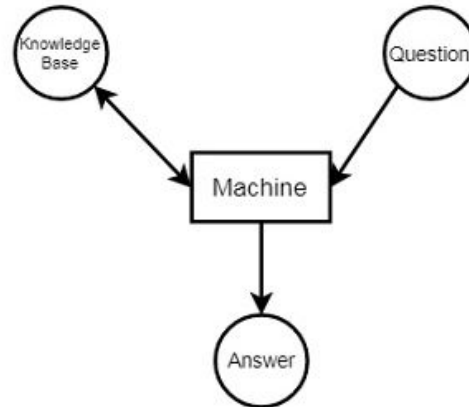


Introduction

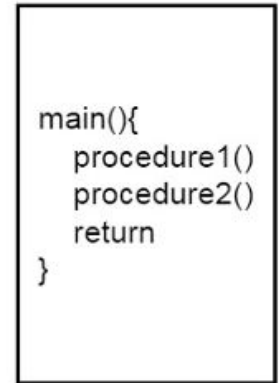
Prolog:

Short form of **Logical Programming**

Logic programming is one of the Computer Programming Paradigm, in which the program statements express the facts and rules about different problems within a system of formal logic.



Logical Programming



Functional Programming



Prolog:

PROgramming in LOGics

- Logical and declarative programming language
- Involve Symbolic and Non-numeric computation
- Used in Artificial Intelligence, where symbol manipulation and inference manipulation are fundamental tasks



Prolog - Application:

- Intelligence Database retrieval
- Natural Language Understanding
- Specification Language
- Machine Learning
- Robot Planning
- Automation System



SwiPL

- Comprehensive free Prolog environment
- Open-source implementation of the Prolog language
- Contains many community built extensions and supports:
 - A package manager;
 - HTTP Client and Server libraries;
 - Multithreading.



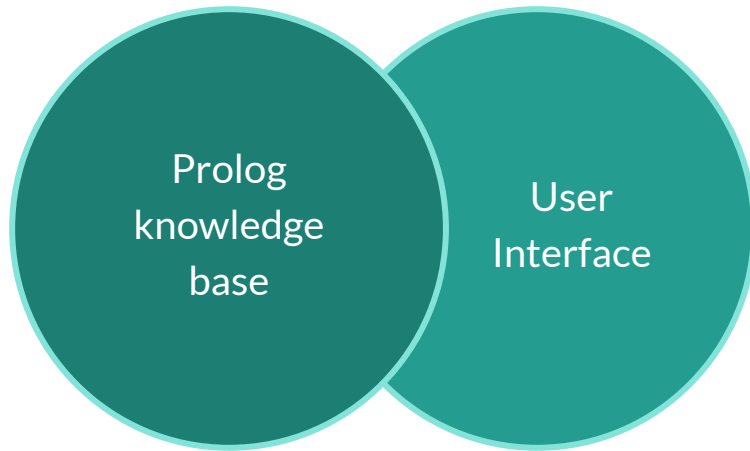


Pengines

- Easy way to create and query Prolog Engines (Pengines)
- Use SwiPL to expose an API
- This API can be used in front-end applications
- Abstraction Layer
- Implemented as a package, in languages like Python and Javascript



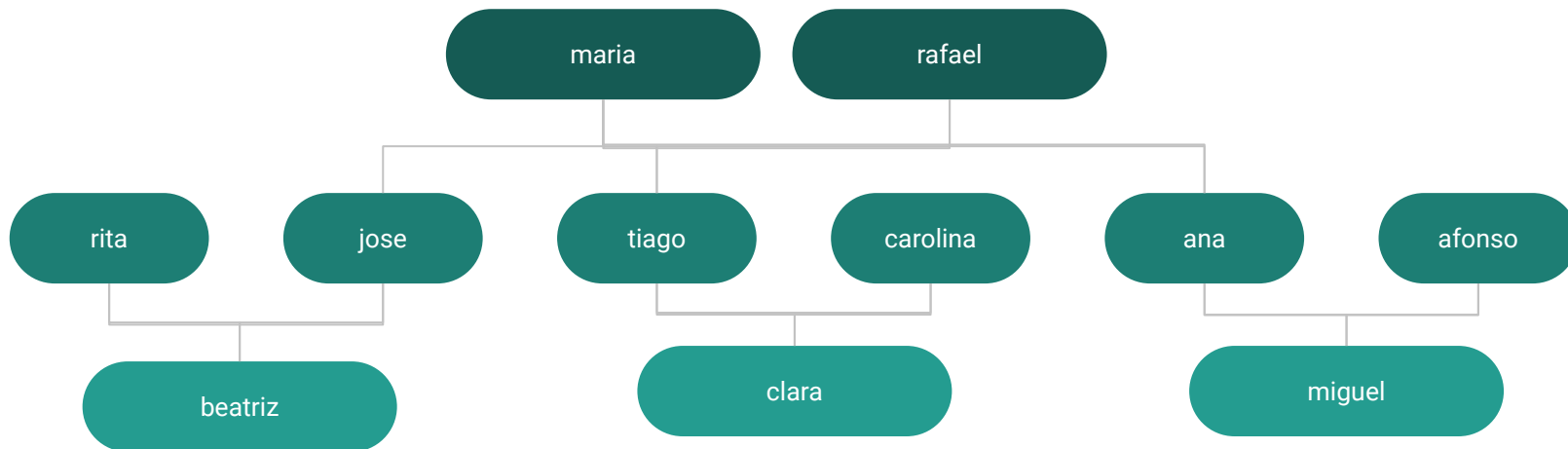
Our Integration



The knowledge base is made up of **Rules** and **Facts** and in our implementation represented a genealogical tree that the user can then query.

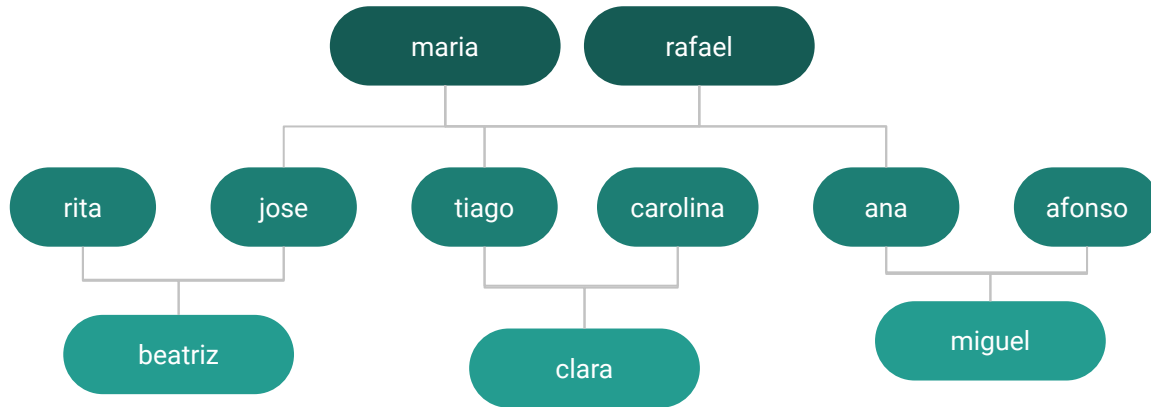


The Family





The Family



Usage example:

Query: `mother_of(X, jose)`

Result: `[{'X': 'maria'}]`



Demo:



Conclusion



Any Questions?