Overview
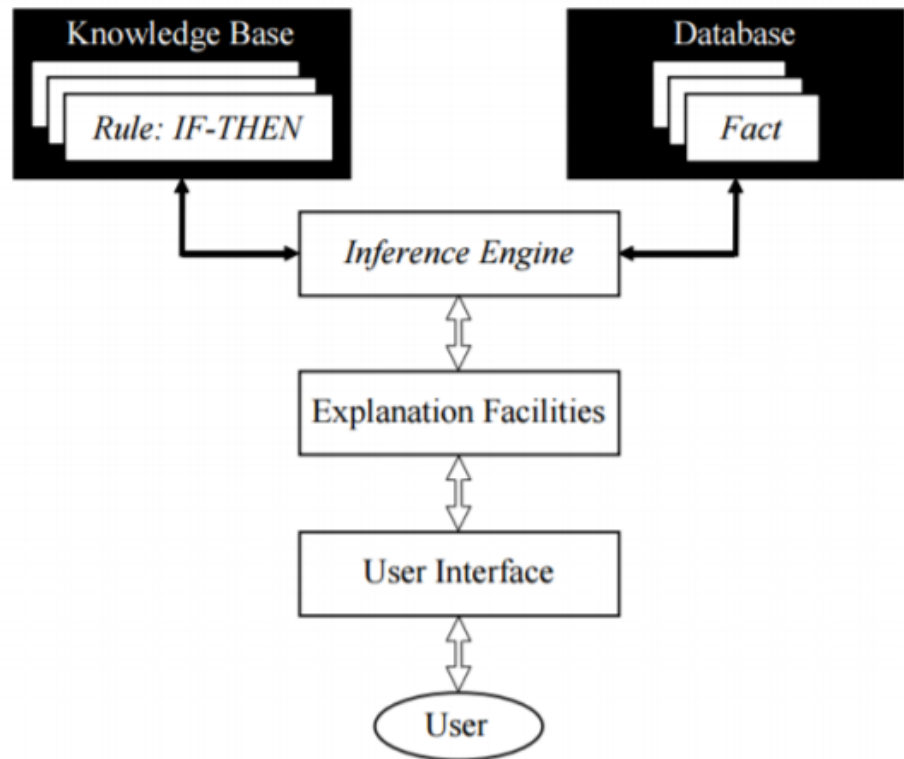
- goal to achieve intelligence with a set of rules
- set of rules
    - underlying assumption
    - if antecedent then consequent
        * if condition then consequence
    - consequence
        * infer facts
            ◆ setting a variable
        * act

Reasoning

- infer facts
    - derive all facts based on given knowledge
        * facts and rules
    - [[Forward Chaining]]
- validate
    - test whether hypothesis is true
    - based on given facts and rules
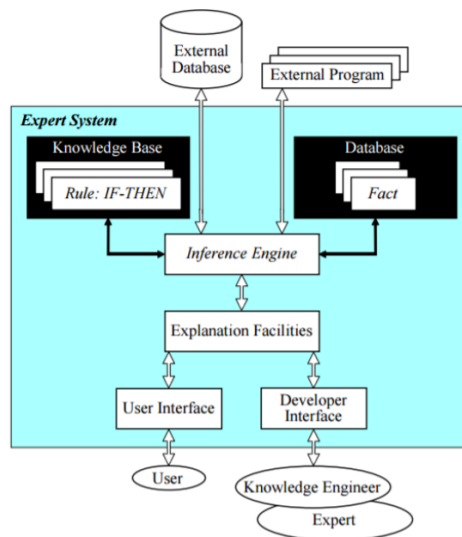   - [[Backward Chaining]]

Components of Rule-Based System

- set of rules
    - knowledge useful for problem solving
    - contains general knowledge
    - information about classes/concepts
- set of facts
    - information about concrete objects
- Inference Engine
    - reasoning based on given set of rules and incoming facts
- Explanation Facility
    - explains the reasoning
    - optional

- User   Interface

Complete Structure of a Rule-Based Expert System

[[Data Science and AI]] [[General Knowledge vs Facts]]