POC rule following:

A rule-based loan approval system uses a set of predefined rules and business logic to make lending decisions. Instead of using a predictive model, it follows a deterministic approach where a loan is either approved or denied based on whether the applicant meets specific, hard-coded criteria.

### **How It Works**

The system operates like a flowchart or a decision tree. It checks an applicant's data against a series of "if-then" statements.

Here are some examples of rules that such a system would use:

* **Credit Score Rule**: **IF** the applicant's credit score is less than 650, **THEN** deny the loan.
* **Debt-to-Income (DTI) Rule**: **IF** the applicant's DTI ratio is greater than 43%, **THEN** deny the loan.
* **Income Verification Rule**: **IF** the applicant's annual income is less than $50,000, **THEN** deny the loan.
* **Loan Amount Rule**: **IF** the requested loan amount exceeds a certain multiple of the applicant's annual income, **THEN** deny the loan.

These rules are often combined with logical operators:

* **Combined Rule**: **IF** the applicant's credit score is greater than 700 **AND** their DTI is less than 35%, **THEN** approve the loan.