Title : Rapid Commercial Card Approval System

Description : You're tasked with developing a simplified rule-based system for a financial institution to automate the approval process specifically for commercial card applications. Given the time constraint of 2 hours, the goal is to implement essential rules for swift decision-making tailored to commercial card applications

Duration of the Interview : 2 hours

Subtasks:

Application Data:

- Business name
- Annual revenue
- Number of years in business
- Requested credit limit
- Type of commercial card (e.g., corporate, purchasing, travel)

Approval Rules:

- Approve applications if annual revenue exceeds X, where X is a configurable threshold.
- Approve applications if the number of years in business is above Y, where Y is a configurable threshold.
- Adjust approval criteria based on the type of commercial card requested.
- Apply specific rules for different commercial card types (e.g., stricter criteria for travel cards due to higher risk).

Decision Outputs:

- Display a concise message indicating approval or rejection along with the reason(s) based on the applied rules.

Rule Definition:

- Define basic rules in Drools DSL or rules file to evaluate revenue, years in business, and card type against predefined thresholds and criteria.

Data Integration:

- Implement a straightforward data input method (e.g., command-line interface, simple form) to gather application details including the type of commercial card.

Rule Evaluation:

- Utilize Drools to swiftly evaluate the application data against the defined rules and generate immediate decisions based on the card type.

Output Generation:

- Present the approval decision and reasoning directly on the console or in a basic user interface for quick review.

Testing and Validation:

- Conduct rapid testing using sample data to verify that the system accurately determines approvals and rejections based on the implemented rules and card-specific criteria.

Efficiency

- Assess the engineer's ability to swiftly implement core rules and ensure fast decision-making tailored to commercial card applications.

Accuracy

- Verify that the system correctly approves or rejects applications based on the provided data and rules, considering different commercial card types.

Adaptability

- Evaluate how well the engineer adjusts approval criteria based on the type of commercial card requested, demonstrating an understanding of varying risk profiles.

Simplicity

- Consider the simplicity and clarity of the implemented solution within the 2-hour time constraint.