Leadicon Technologies Pvt Ltd

Backend Developer Assignment

Objective:
Build a Spring Boot-based Rule Engine API that evaluates transactions against dynamically configurable rules.

Requirements:
1. Implement the following endpoints:
- **POST /rules:** Accepts and stores a list of dynamic rules (e.g., "amount > 1000 && type == 'credit'").
- **POST /evaluate:** Accepts a list of transactions and applies all active rules, returning transactions that match at least one rule.
- **GET /rules:** (Optional) Returns the currently active rules.
2. Rules must be evaluated dynamically (no hardcoded if-else conditions).
3. Store rules temporarily in memory (no database).
4. You may use Java's ScriptEngineManager or implement a custom parser to evaluate conditions.

Sample Transaction Data:
[{ "id": 1, "amount": 2500, "type": "credit", "category": "electronics" },
{ "id": 2, "amount": 120, "type": "debit", "category": "grocery" },
{ "id": 3, "amount": 800, "type": "credit", "category": "fashion" }]

Evaluation Criteria:
- API design and structure
- Dynamic condition evaluation
- Clean code, modular design, and documentation
- Logical accuracy and error handling

Deadline: 02-11-2025 (Tomorrow Evening)
Submission: Submit your completed assignment as a ZIP file on WhatsApp.
File Name: leadicon_backend_assignment.zip