Backend Assessment
Daily Interest Calculator Service (Cron-Based)
Tech Stack: Spring Boot + PostgreSQL

Overview
Build a Spring Boot service that calculates daily loan interest and stores the results in a PostgreSQL database. Interest must be calculated automatically once per day using a cron job. Expose APIs to view loans and their interest history.

Business Problem
A financial system needs to compute daily interest for each active loan using: dailyInterest = (principalOutstanding × annualInterestRate / 365) The system should run a scheduled job daily, calculate interest, store it, and maintain cumulative interest per loan.

Core Features

1. Daily Cron-Based Interest Calculation
A scheduled job should: 1. Fetch all loans 2. Calculate interest for the previous day 3. Insert a row into interest_history 4. Update the loan's cumulative interest

2. Manual Trigger API : POST /api/interest/run

3. Get Loan Details : GET /api/loans/{loanId}

4. Get Interest History : GET /api/loans/{loanId}/interest-history

Database Schema:

loan: - loan_id (PK) - customer_name - principal_outstanding - annual_interest_rate - total_interest_accrued - created_at - updated_at

interest_history: - id (PK) - loan_id (FK) - interest_date - interest_amount - created_at

Please feel free to add any tables, columns as you see fit additionally

Submission Format
Submit via GitHub: - Source code - README with instructions & cron details
Postman Collection (Optional)