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Credit Advisory Service

This task aims to create a simplified version of the Credit Advisory Service that allows the processing of credit applications.

Domain model

An advisor is a bank employee who works with credit **applications**. He/she has personal data like first and last names, and a *role* (*associate, partner, senior*). Each **advisor** has a list of **applications** that were assigned to them.

An applicant is a person who applies for credit. They must provide their *first and last names, social security number*, address (*city*, *street*, *number*, *zip*, *apt*), and a list of *phone numbers* (Each number should indicate if it's a *home*, *work*, or *mobile*).

An application is a document submitted by the **applicant**. It has *an amount of money* (USD), a *status* (*new, assigned, on_hold, approved, canceled, declined*), a timestamp of when it was *created*, a timestamp of when it was *assigned*, and a timestamp of when it was *resolved.* The same person can apply multiple times, creating multiple **applications** for the same **applicant**. So it stores *a reference to the **applicant***. If the application is assigned, it should store a *reference to the **advisor***.

Anyone who works with the system (**advisor**, **applicant**) is a **system user**. User management is implemented with **AWS Cognito**. *(It's a third-party system that is used for authorization and authentication, and **you don't need to care about it.**)* In our DB, we need to store every user's *email* and a corresponding Cognito *username*. Which is unique, and identifies the user.

Features

Given this domain model, please implement a server app with a single feature – **Application Assignment**. There should be **an endpoint** that accepts an *advisor id*, assigns an application to them, and provides a corresponding response. The **business logic** of this flow is the following:

- Check if the advisor already has an assigned application, if yes then respond with an error
- Load the oldest application with the *status* "NEW" and the requested *amount* that fits the current advisor's role
  - associate – under 10 000 USD
  - partner – 10 000 USD to 50 000 USD
  - senior – over 50 000 USD

- If no application is found, then respond with a corresponding message
- Assign the application to the given advisor (create a relationship)
- Change the application status to “ASSIGNED”
- Set the timestamp when it was assigned
- Return the application

Additional features:

- Endpoints to read **applicant, application** and **advisor** data.s

Technology Stack

- Java 17+
- Spring Boot 3+
- Spring Data JPA + Hibernate
- Flyway
- PostgreSQL

Extra Technology Stack

- GraphQL – for application’s API (endpoints)