API Documentation

Transaction Management Service

# Authentication

All APIs require an API Key to be passed in the request header:

X-API-KEY: my-secret-key

# Endpoints

## 1. Upload Transactions

Description: Uploads transactions from datasource.txt and saves them into the database.

Endpoint: POST /api/batch/upload

Headers:  
- X-API-KEY: my-secret-key

Response:  
{  
 "message": "Data successfully uploaded to database."  
}

## 2. Get All Transactions (Paginated)

Endpoint: GET /api/batch/getAll

Query Parameters:  
- pageNo: (integer) page number (starting from 0)  
- pageSize: (integer) number of items per page

Example Request: GET http://localhost:8080/api/batch/getAll?pageNo=1&pageSize=2

Headers:  
- X-API-KEY: my-secret-key

Sample Response:  
{  
 "content": [...],  
 "pageable": {...},  
 "totalElements": 188,  
 "totalPages": 94,  
 ...  
}

## 3. Search Transactions by Description

Endpoint: GET /api/batch/search

Query Parameters:  
- description: (string) text to search in description field

Example Request: GET http://localhost:8080/api/batch/search?description=FUND TRANSFER

Headers:  
- X-API-KEY: my-secret-key

Response:  
[  
 {"transactionId": ..., "description": "ATM WITHDRAWAL", ...},  
 ...  
]

## 4. Update Transaction

Description: Updates a transaction.

Endpoint: PUT /api/batch/{customerId}

Headers:  
- X-API-KEY: my-secret-key  
- Content-Type: application/json

Request Body:  
{  
 "transactionId": 191,  
 "customer": {"id": 222, "accountNumber": "8872838283"},  
 "trxAmount": 123.0,  
 ...  
}

Response:  
{  
 "transactionId": 191,  
 "version": 1,  
 ...  
}

# Design Pattern Used

1. MVC Design Pattern
2. Singleton Pattern (used by Spring Beans)
3. Repository Pattern.(used in CRUD layer

# Sample Configuration

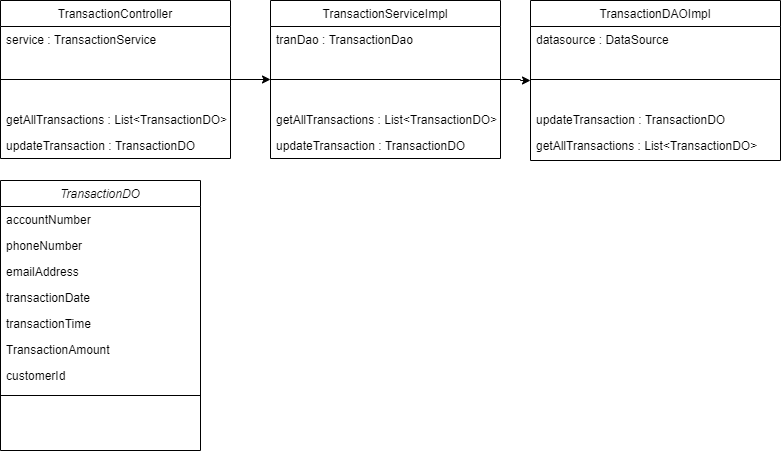
application.properties

# Data file location  
data.file.path=classpath:data.txt  
  
# Oracle DB  
spring.datasource.url=jdbc:oracle:thin:@localhost:1521:ORCL  
spring.datasource.username=your\_user  
spring.datasource.password=your\_password  
spring.jpa.hibernate.ddl-auto=update  
spring.jpa.show-sql=true  
  
# API Key  
api.key.header=X-API-KEY

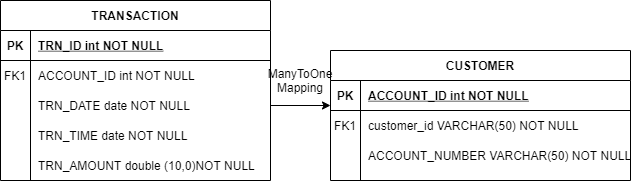
api.key.value=my-secret-key

data.file.path=classpath:data.txt

# Class Diagram



# ER Diagram



# ER Diagram

