Test_Assignment - By Himanshu Gupta

REST API for Foreign Exchange Rates

This repository consists of below files:

- Application -Consists of the main function and configuration of swagger API. Controller Consists of end-point urls.
- Model Consists of currency, rate and date (to be stored in in-memory database).
- Repository The methods used to interact with database are present.

 Service Xml parser (or Rest API call) and other conversion logics are present Properties Consisits of in-memory DB details.
- XML file Consisits of exchange rates on different time period (based on currency).

Standalone Foreign Exchange Rate Application

Prerequisites

- [Java] [Tomcat 8.5]

Technologies Used

- Spring Boot
 Spring MVC Test framework and JUnits
 Swagger API
- Swagger API Xml Parser
- RestTemplate Maven

Installation Steps

- 1. Clone the Git Repository.
 2. Build the project using Maven: mvn clean install under \ForeignExchangeRateAPI
 3. The jar file will be created under the target folder \target\ForeignExchangeRate-0.0.1-SNAPSHOT.jar
 4. Run Application by either of the below commands: i.) mvn spring-boot:run under \ForeignExchangeRateAPI\OR ii.) java -jar ForeignExchangeRate-0.0.1-SNAPSHOT.jar under \target folder run command

Usage

Below are the different REST APIs calls which can be made (List Of Operations):

- 1. GET http://localhost:8081/api/foreignExRate/getAllCurrency- Get all the available Currency
- 2. GET http://localhost:8081/api/foreignExRate/getAllRates Get all the available Rates at all available dates
- 3. GET http://localhost:8081/api/foreignExRate/all/{date} Get the Foreign Exchange Rate at a Particular day
- 4. GET http://localhost:8081/api/foreignExRate/convertRatesToEuro Convert Amount in other currency to Euro
- 5. GET http://localhost:8081/api/foreignExRate/convertRates- Convert Amount in currency 1 to currency 2
- 6. GET http://localhost:8081/api/foreignExRate/getAllRatesByCurrency Get all Rates by Currency
- 7. GET http://localhost:8081/api/foreignExRate/{date} Get all Rates By Date and Currency

Both have embedded Tomcat and In-memory ActiveMQ. The application can be accessible using the below URL

The Request can be initiated using POSTMAN or SWAGGER console.

 $\verb|http://localhost:8081/swagger-ui.html#!/-SWAGGER URL for initiating GET Request. | | Colored Color of the color of the$

Snippet of Swagger API and Postman



default (/v2/api-docs) ∨

Explore

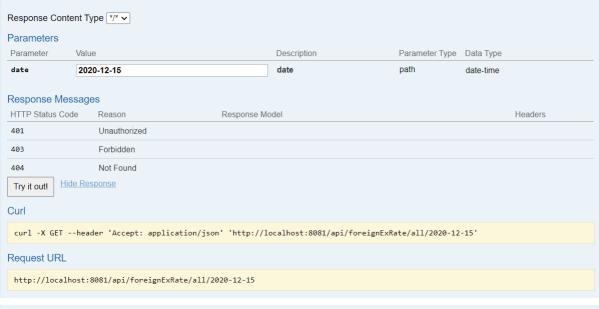
Exchange Rate API

This API provides the details about the Exchange Rates

Created by Himanshu

API : Exchange Rate Service	Show/Hide List Operations Expand Operations
GET /api/foreignExRate/all/{date}	Get All Rates By Date
GET /api/foreignExRate/convertRates	Convert By Date From Currency 1 to Currency 2 with Amount X
GET /api/foreignExRate/convertRatesToEuro	Convert By Date From Currency 1 to Euro with Amount X
GET /api/foreignExRate/getAllCurrency	Get All the Available Currency
GET /api/foreignExRate/getAllRates	Get All the Available Rates
GET /api/foreignExRate/getAllRatesByCurrency	Get All Rates By Currency
GET /api/foreignExRate/{date}	Get all Rates By Date and Currency

[BASE URL: /]



Response Body

Response Code

200

Response Headers

```
{
    "content-type": "application/json; charset=UTF-8",
    "date": "Sat, 19 Dec 2020 02:17:42 GMT",
    "transfer-encoding": "chunked"
}
```

