Stock Data Import System :

Create a spring boot application as per below. Also do the proper exception handling wherever require and follow the coding standards.

Use JDK 11

Use hibernate for the database transactional operations.

Use Service & Dao layer pattern wherever required.

Submission : create .zip file of your project along with output screenshot for all the endpoints and jar file.

Third party API Endpoints information to fetch data from :

[Below is the free historical stock exchange API. If token expires, you can create the new one from this site : https://eodhistoricaldata.com/]

Endpoint details :

URL:
https://eodhistoricaldata.com/api/eod/{company.exchange}?api_token=63ef56d24343a3.83583376

Request Type : GET

Response Type : text/csv

E.g., Below endpoint will fetch the details of TCS stock for the NSE exchange.

https://eodhistoricaldata.com/api/eod/TCS.NSE?api_token=63ef56d24343a3.83583376

Sample response from the third-party API :

```
Date,Open,High,Low,Close,Adjusted_close,Volume
2022-03-17,3696.6,3710,3660.3,3672.75,3672.75,3600452
2022-03-21,3696,3713.95,3615,3626.7,3626.7,2413831
2022-03-22,3640,3711,3625,3700.95,3700.95,2907611
2022-03-23,3708,3729.8,3690,3712.4,3712.4,1596195
2022-03-24,3700,3758.2,3695,3749.85,3749.85,1879046
2022-03-25,3759.9,3779.5,3672,3707.45,3707.45,1690133
2022-03-28,3695,3713,3661.2,3707.7,3707.7,1760990
```

TASK 1 : **Create an API endpoint to save the data fetched from the third party endpoint using code and save it in the CSV form as per the below folder structure.**

Restriction : User can only request for the below 2 exchanges.

NSE , BSE

Folder structure :

DataImport/Exchange/CompanyName/year/month

E.g. DataImport/NSE/TCS/2022/01/stockdata.csv

DataImport/BSE/TCS/2022/02/stockdata.csv

Details of the API Endpoints need to be created in the Spring Boot App:

1. /importToCsv/{exchange}/{companySymobl}

- import for the requested exchange [NSE/BSE] from third party endpoint.

2. /importToCsv/{companySymobl}

- import for both exchanges at once from third party endpoint.

CSV header : Id, ImportTS, Date,Open,High,Low,Close,Adjusted_close,Volum

String **Id** -> it is a unique key you need to generate using md5 of date+exchange+companySymbol

LocalDateTime **ImportTs** -> the timeStamp when csv file getting saved in the folder.

Acceptance criteria :

When we send request to the above API endpoints , it should create a csv file and save it in the folder as per the above folder structure.

TASK 2: **Create an API endpoint to load the saved data from the task1 (csv files) to the MySQL database :**

Details of the API Endpoints need to be created in the Spring Boot App:

/importToDb/{exchange}/{companySymobl}

- load data for a requested exchange & company

/importToDb/{exchange}

- load all data for a requested exchange (NSE/BSE)

/importToDb/all

- load all the data from the folder

Note : load all the data from different data/year for the one company in the same table.

db name : stockImportDb

table name format : {companyname}_stockdata

for eg. tcs_stockdata

Acceptance criteria :

When we send request to the above API endpoints , it should import the data from the DataImport folder to the database tables.