

Microservices - TauxChange

Presentation

Gérer (créer , récupérer , modifier , supprimer) des taux de change entre deux devises. Un taux de change se caractérise par {"devise source" : "EUR", "devise destination" : "USD", "taux" : 1.22, "date" : "2021-05-25"} signifiant qu'en date du 25 mai 2021, 1 euro vaut 1.22 dollar US.

Diagramme de classe

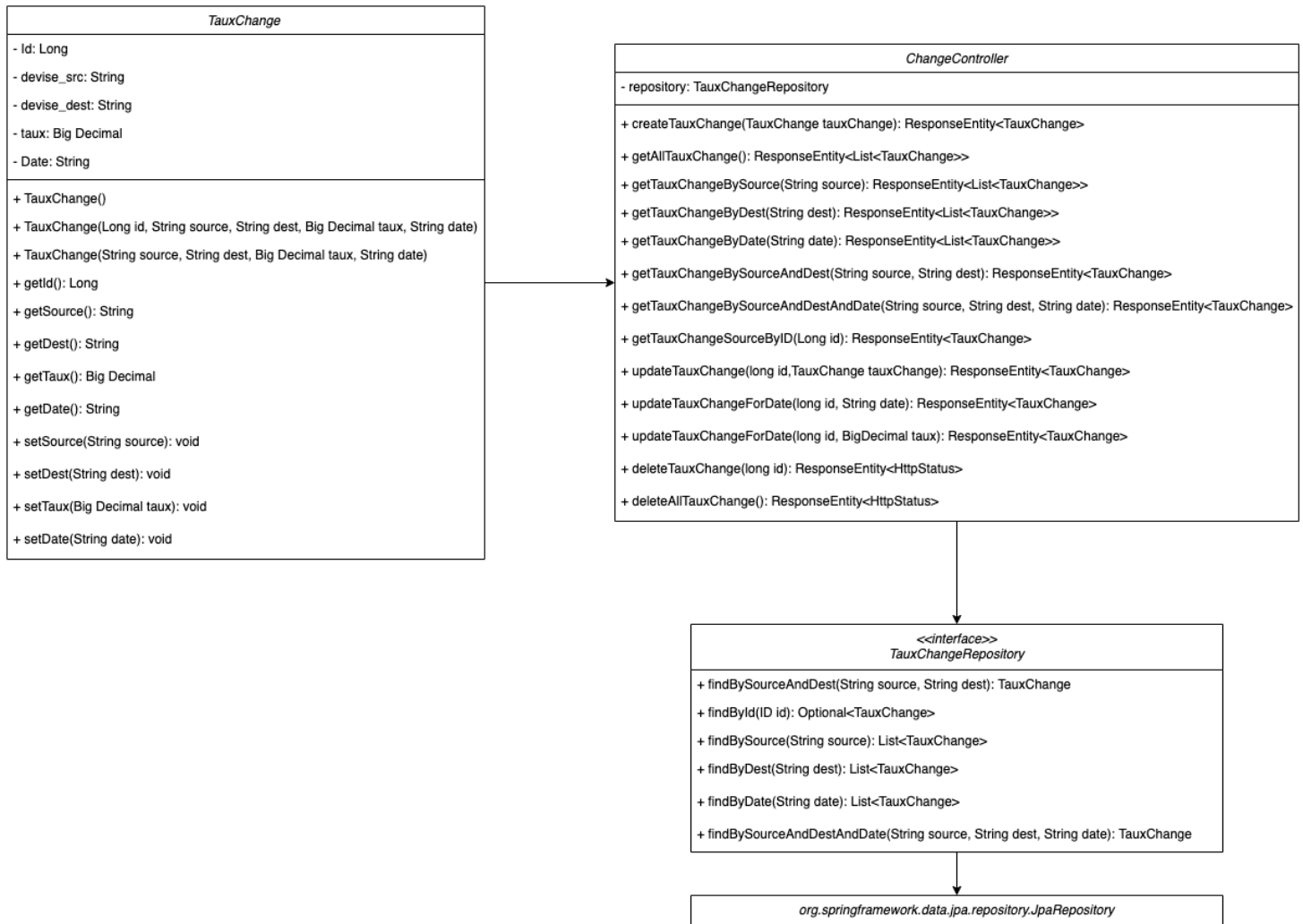


Figure 1: Screenshot

Installation

Set up the Spring Boot Application

```
./mvnw package && java -jar target/tauxchange
```

Set up Docker

```
docker build -t springio/tauxchange .
docker run -p 8000:8000 -t springio/tauxchange
```

Rest API

Methods

Methods	Urls	Actions
POST	/taux-change	create new Taux Change
GET	/taux-change	retrieve all Taux Change
GET	/taux-change/id/{id}	retrieve Taux Change by {id}
GET	/taux-change/source/{source}	retrieve Taux Change by {source}
GET	/taux-change/dest/{dest}	retrieve Taux Change by {dest}
GET	/taux-change/date/{date}	retrieve Taux Change by {date}
GET	/taux-change/source/{source}/dest/{dest}	retrieve Taux Change by {source} and {dest}
PUT	/taux-change/id/{id}	update all Taux Change by {id}
PUT	/taux-change/id/{id}/date/{date}	update {date} of Taux Change by {id}
PUT	/taux-change/id/{id}/taux/{taux}	update {taux} of Taux Change by {id}
DELETE	/taux-change	delete all Taux Change
DELETE	/taux-change/id/{id}	delete Taux Change by {id}

Utilisation

POST

create new Taux Change

```
curl -X POST -H "Content-type: application/json" -d '{"source": "AUD", "dest": "USD", "taux": 0.7586, "date": "2021-06-25"}'
```

```
{ "source": "AUD", "dest": "USD", "taux": 0.7586, "date": "2021-06-25" }
```

GET

retrieve all Taux Change

```
curl -X GET "http://localhost:8000/taux-change"
```

```
[{"source": "EUR", "dest": "USD", "taux": 1.19, "date": "2021-06-21"}, {"source": "EUR", "dest": "USD", "taux": 1.19, "date": "2021-06-22"}, {"source": "EUR", "dest": "USD", "taux": 1.19, "date": "2021-06-23"}, ...]
```

retrieve Taux Change by {id}

```
curl -X GET "http://localhost:8000/taux-change/id/10001"
```

```
{ "source": "EUR", "dest": "USD", "taux": 1.19, "date": "2021-06-21" }
```

retrieve Taux Change by {source}

```
curl -X GET "http://localhost:8000/taux-change/source/USD"
```

```
[{"source": "USD", "dest": "GBP", "taux": 0.72, "date": "2021-06-21"}, {"source": "USD", "dest": "GBP", "taux": 0.72, "date": "2021-06-22"}, {"source": "USD", "dest": "GBP", "taux": 0.72, "date": "2021-06-23"}, {"source": "USD", "dest": "GBP", "taux": 0.72, "date": "2021-06-24"}, {"source": "USD", "dest": "GBP", "taux": 0.72, "date": "2021-06-25"}]
```

retrieve Taux Change by {dest}

```
curl -X GET "http://localhost:8000/taux-change/dest/USD"
```

```
[{"source": "EUR", "dest": "USD", "taux": 1.19, "date": "2021-06-21"}, {"source": "EUR", "dest": "USD", "taux": 1.19, "date": "2021-06-22"}, {"source": "EUR", "dest": "USD", "taux": 1.19, "date": "2021-06-23"}, {"source": "EUR", "dest": "USD", "taux": 1.19, "date": "2021-06-24"}, {"source": "EUR", "dest": "USD", "taux": 1.19, "date": "2021-06-25"}, {"source": "AUD", "dest": "USD", "taux": 0.76, "date": "2021-06-25"}]
```

retrieve Taux Change by {date}

```
curl -X GET "http://localhost:8000/taux-change/date/2021-06-25"
```

```
[{"source": "EUR", "dest": "USD", "taux": 1.19, "date": "2021-06-25"}, {"source": "EUR", "dest": "JPY", "taux": 132.18, "date": "2021-06-25"}, {"source": "USD", "dest": "GBP", "taux": 0.72, "date": "2021-06-25"}, {"source": "AUD", "dest": "USD", "taux": 0.76, "date": "2021-06-25"}]
```

retrieve Taux Change by {source} and {dest}

```
curl -X GET "http://localhost:8000/taux-change/source/EUR/dest/USD"
```

```
[{"source": "EUR", "dest": "USD", "taux": 1.19, "date": "2021-06-21"}, {"source": "EUR", "dest": "USD", "taux": 1.19, "date": "2021-06-22"}, {"source": "EUR", "dest": "USD", "taux": 1.19, "date": "2021-06-23"}, {"source": "EUR", "dest": "USD", "taux": 1.19, "date": "2021-06-24"}, {"source": "EUR", "dest": "USD", "taux": 1.19, "date": "2021-06-25"}]
```

PUT

update all Taux Change by {id}

```
curl -X PUT -H "Content-type: application/json" -d '{"source": "AUD", "dest": "USD", "taux": 0.7582, "date": "2021-06-24"}'
```

```
{"source": "AUD", "dest": "USD", "taux": 0.7582, "date": "2021-06-24"}
```

update {date} of Taux Change by {id}

```
curl -X PUT "http://localhost:8000/taux-change/id/10016/date/2020-06-25"
```

```
{"source": "AUD", "dest": "USD", "taux": 0.76, "date": "2020-06-25"}
```

update {taux} of Taux Change by {id}

```
curl -X PUT "http://localhost:8000/taux-change/id/10016/taux/0.7582"
```

```
{"source": "AUD", "dest": "USD", "taux": 0.7582, "date": "2020-06-25"}
```

DELETE

delete all Taux Change

```
curl -X DELETE "http://localhost:8000/taux-change"
```

delete Taux Change by {id}

```
curl -X DELETE "http://localhost:8000/taux-change/id/10016"
```