Assignment

To test your mobile development skills, we will need to develop an app for either iOS or Android. You can decide which platform you want to develop for.

The app is a currency calculator. The functionalities that we expect are as follows:

- Able to select two currencies
- Search for a currency by entering matching text
- See the exchange rates between the two currencies
- Enter a desired amount in one of the currencies in the currency pair and the amount for the other currency should be updated based on the published rates.
- The currencies and rates must come from the APIs that we provide. You must call the APIs in your app.

The mockups of the app are on the last two pages. While the mockups are geared towards iOS, you can implement the UI native to the platform that you are developing for. You will not be penalized for doing so.

Note:
You are free to make any assumptions about the app that is not outlined in this document. However, you should document those assumptions in a README.md file in your Git repository, so that we can understand your rationale when reviewing your code.

Git Repository

Your code should live on a Git repository. We ask that you push your code to your preferred Git host and give us a link to access it. Remember to grant us access if your repository is private.

APIs

There is an API server hosted on https://github.com/mcapi-interview/CurrencyServer

Clone the repository and run it on your local machine.

How to run the server

Server is written in Spring Boot on Java 8. You should have a Java Development Kit v8 installed in your machine to run the server.

Use the following command to start the server on your machine:

Linux/Mac

```
./mvnw clean spring-boot:run
```

Windows

```
mvnw.cmd clean spring-boot:run
```

After the server has started, go to the below link in your browser and you should see, “App running”.

Link: http://localhost:8080

Note: Please contact us if you are not able to run the server.

APIs Available

Following APIs are available for you to use –

1. Get All Currencies

URL: `/api/currency`

Method: GET

Response:

A list of Currency Object. Each currency object has –

1. code – 3 alphabet code of currency
2. country – name of the country
3. name – name of the currency
4. flagPath - path to the image of flag
5. rate - equivalent conversion to USD rate

Example Response:

```
[
        {
                "code": "CHF",
                "country": "Switzerland",
                "name": "Swiss Franc",
                "flagPath": "/flags/ch.png",
                "rate": 1.0369
        },
        {
                "code": "CNY",
                "country": "China",
                "name": "Chinese Yuan Renminbi",
                "flagPath": "/flags/cn.png",
                "rate": 0.1528
        },
        {
                "code": "EUR",
                "country": "European Union",
                "name": "Euro",
                "flagPath": "/flags/eu.png",
                "rate": 1.1875
        }
    ]
```

2. Get Exchange Rate

URL: `/api/exchange?baseCode=<baseCode>&targetCode=<targetCode>`

Note that baseCode and targetCode are required parameters and refers to the 3-alphabet code of the currency.
For example, to convert Japanese Yen to Indian Rupee your request should be:
`/api/exchange?baseCode=JPY&targetCode=INR`

Method: GET

Response: An exchange object. Exchange object contains the following fields.

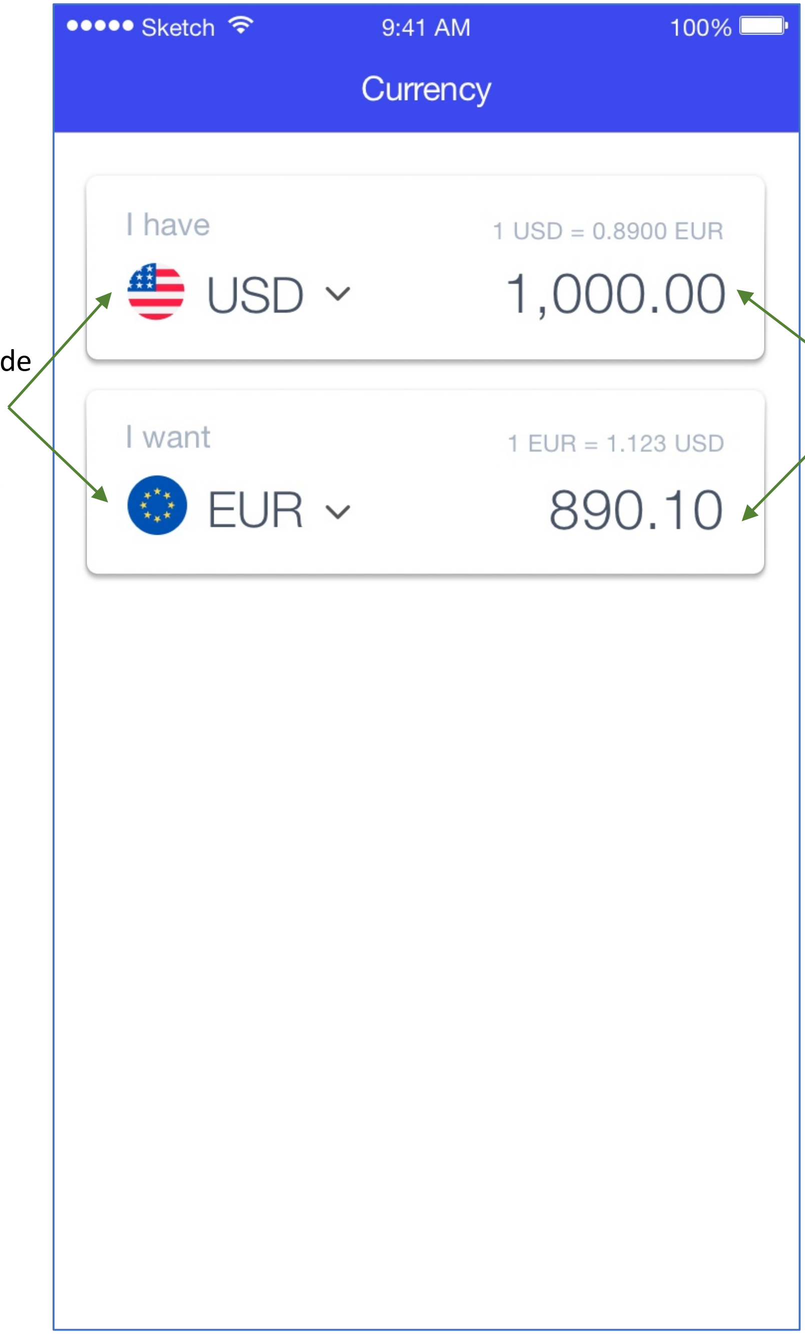
1. baseCode: The currency you want to convert from.
2. targetCode: The currency you want to convert to.
3. rate: effective conversion rate.

Example Response:

```
{
    "baseCode": "CNY",
    "targetCode": "MYR",
    "rate": 0.64201677
}
```

This means 1 CNY equals to 0.64201677 MYR

Tapping on the flag/currency code will bring the user to the next screen to select the currency. Next screen is on the next page.



Currency

I have

1 USD = 0.8900 EUR

USD

1,000.00

I want

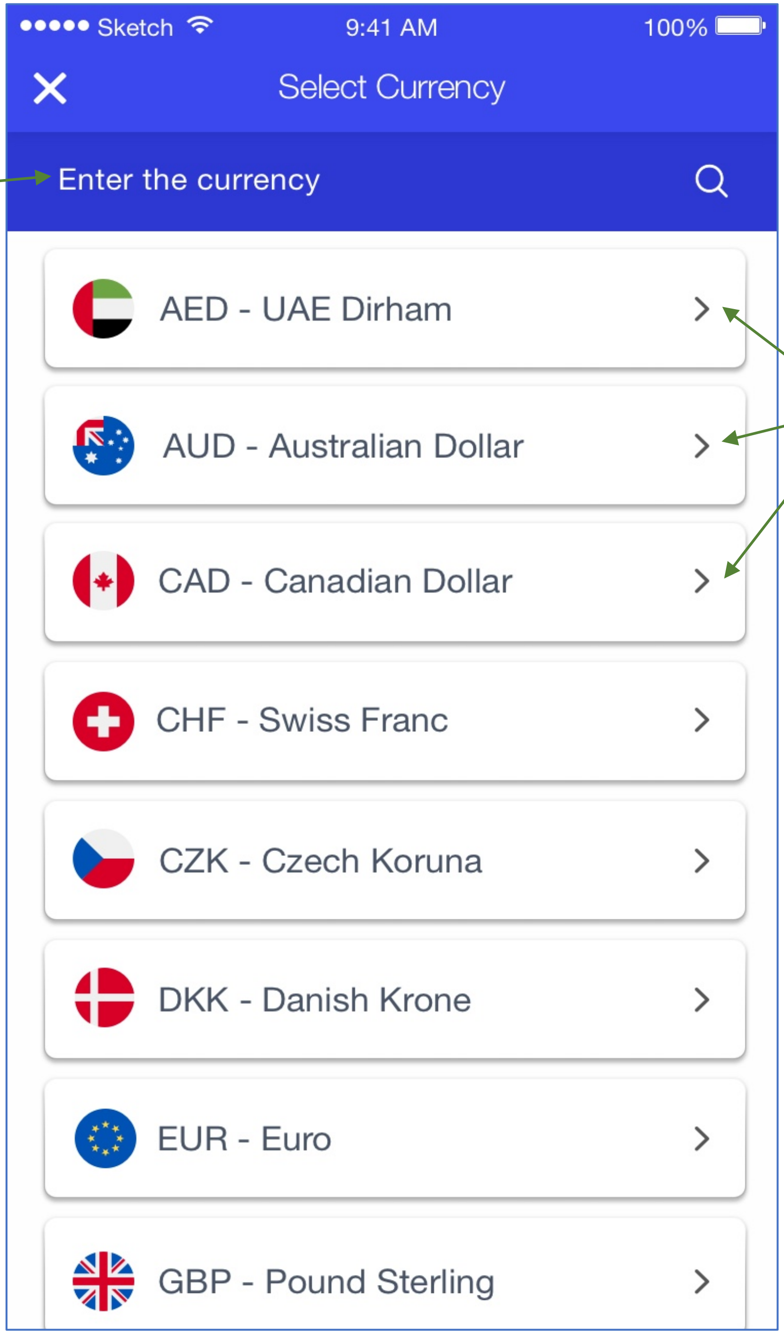
1 EUR = 1.123 USD

EUR

890.10

User can enter the amount from either side and the other currency should reflect the value based on the amount and rate.

Enter some text to search for the currency. The list below should be shortlisted to show the matched currencies.



Select Currency

Enter the currency

- AED - UAE Dirham ›
- AUD - Australian Dollar ›
- CAD - Canadian Dollar ›
- CHF - Swiss Franc ›
- CZK - Czech Koruna ›
- DKK - Danish Krone ›
- EUR - Euro ›
- GBP - Pound Sterling ›

Selecting any one of the currencies in the list will go back to the previous screen. Previous screen is on the previous page.