**Exchange Rates Service**

(UI and backend design implementation documentation)

**Technologies and tool used:**

1. Angular
2. Spring Boot
3. H2 in-memory database

**Assumptions:**

1. Base currency is not provided in requirement document.

So, I have taken base currency as USD and hardcoded for now in Controller.

**Backend exposed REST APIs:**

1. /api/v1/exchange-rates
2. /api/v1/exchange-rates/months

Application flow (UI Screens) 🡪

Login screen (angular component – **login-component**)

A screenshot of a cell phone

Description automatically generated

1. Login screen

* Username and password **validation as per requirement**.
* On click of Submit, username and password will be validated.

Once validation is successful, username and password will be store in **sessionStorage**

A screenshot of a cell phone

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A screenshot of a social media post

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Exchange Rates (angular component – **exchange-rates**)

Once login is successful, user will be navigated to showExchangeRates screen.

As soon as user lands on this screen, rest end point “**api/v1/exchange-rates**

” will be triggered. It will call external api to fetch exchange rates and those will be **saved in in-memory database H2** database. After that, confirmation message will be shown to user and “Display” button will be shown to user.

A screenshot of a cell phone

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After clicking on Display button, another rest end point “**/api/v1/exchange-rates/months**

” will be called base currency and respective exchange rates will be displayed to user in tabular format. Along with that note will be shown to user to give idea about month 1, month 2 etc columns.

A screenshot of a cell phone

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**Note:** for backend service, Repository name or service name (exchange-rates-backend-service) is looking different that, spring application name or package structure (ExchangeRatesServiceApplication) since I faced some problem while git push that’s why I created new project and added code from old to new project. Ideally, Apring boot application name should be ExchangeRatesBackendServiceApplication or Repo name should be exchange-rates-service.