Desafio 1

Currency Converter Application

**Overview**

This document provides a comprehensive overview of the Currency Converter Application, developed using React. The application allows users to convert an amount from Brazilian Reais (BRL) to selected foreign currencies (USD, EUR, GBP), and displays the converted amount. It also handles errors gracefully if the API request fails.

**Project Structure**

**Directory Structure**

currency-converter/

├── src/

│ ├── components/

│ │ ├── InputField.js

│ │ ├── CurrencySelector.js

│ │ ├── ConversionResult.js

│ ├── services/

│ │ ├── api.js

│ ├── styles/

│ │ ├── styles.css

│ ├── App.js

│ ├── index.js

├── public/

│ ├── index.html

├── package.json

**File Descriptions**

* **src/components/**: Contains reusable React components:
  + **InputField.js**: A component for entering the amount in BRL.
  + **CurrencySelector.js**: A dropdown component for selecting the target currency.
  + **ConversionResult.js**: Displays the converted amount.
* **src/services/**:
  + **api.js**: Contains the logic for fetching exchange rates from the CoinDesk API.
* **src/styles/**:
  + **styles.css**: Includes CSS for styling the application.
* **App.js**: The main component that integrates all the sub-components and handles business logic.
* **index.js**: Entry point for the React application.
* **public/index.html**: The base HTML file for the application.

**Development and Testing**

**Development**

* **Start the application**: npm start or yarn start
* **Build for production**: npm run build or yarn build
* **Run tests**: npm test or yarn test

**Testing**

The application uses Jest for unit testing. Ensure components and services are tested thoroughly to maintain high code quality and reliability.

* Ensure you have Node.js and npm/yarn installed.
* The API used in this application (https://api.coindesk.com/v1/bpi/currentprice.json) provides exchange rates for USD, EUR, and GBP.
* Error handling is implemented in the API service to handle cases where the API request fails or the currency is not supported.