**Open Exchange Rates API Summary**

This API, offered by Open Exchange Rates, allows developers and consumers to access real-time and historical data for hundreds of currencies throughout the world.This service offers both a free, unregistered version and a full enterprise version of its services. Open Exchange Rates is a simple, lightweight, and portable JSON API that provides live and historical currency rates for over 200 worldwide and digital currencies. Data from many reputable sources is monitored and algorithmically merged to ensure fair and unbiased consistency. The Open currency Rates API collects currency rates from a variety of reliable sources, aggregates them, and makes them available to everyone in JSON format. There are no challenging questions, complicated authentication procedures, or long contracts. In addition to USD exchange rates, Open Exchange Rates also provides pricing in cryptocurrencies such as Bitcoin (BTC), Ethereum (ETH) and Litecoin (LTC). This makes it easy for developers to include cryptocurrency support in their applications. The platform also supports multiple base currencies including GBP, EUR, CAD, AUD & JPY along with other currencies like CHF, SEK & NOK. Open Exchange Rates provides an easy-to-use REST API that is completely free and can be used to access real-time and historical exchange rate data from hundreds of currencies worldwide. With its simple request parameters and user-friendly responses, it can be integrated into any web or mobile application with minimal effort. I found the Open Exchange rates API by searching for “Java compatible API, REST API that could provide exchange rates against the US dollar.” I read up on articles that showed the top APIs for Currency Exchanges and decided to choose Open Exchange Rates since it seemed simple to use. The API is accessible via an endpoint URL of https://openexchangerates.org/api/. To make a request, you must include two parameters in your HTTP request: the base currency, which will be the US Dollar (USD), and the target currencies, which are the currencies that you want to convert your base currency into. You must also include an API key in the "Authorization" header of your request in order to access the API. When you make a successful request, the API will return a JSON response containing the relevant exchange rates. The response will always contain two parameters: the base currency and an object containing all of the target currencies with their exchange rates as values. For example, if we wanted to get exchange rate data on the USD against the British Pound (GBP), Canadian Dollar (CAD), and Euro (EUR), our request URL would look like this:

https://openexchangerates.org/api/latest.json?base=USD&symbols=GBP,CAD,EUR. Our response would give us a JSON object containing our base currency ("USD") and an object with three keys ("GBP", "CAD", and "EUR") with corresponding exchange rate values.

Sample Request & Response:

Request: https://openexchangerates.org/api/latest.json?base=USD&symbols=GBP,CAD,EUR Response: {

"base": "USD",

"rates": {

"GBP": 0.81239,

"CAD": 1.42161,

"EUR": 0.88449

}

}

In conclusion, Open Exchange Rates offers a robust REST API service which can easily be integrated into any application or website providing up-to-date USD exchange rates against all major world currencies as well as pricing in cryptocurrencies such as BTC, ETH & LTC among others at no cost. Its comprehensive suite of integrations makes it extremely simple for developers to add currency conversion features into their applications without having to write a single line of code!