

Your challenge for today is to delve deep into the work of foreign exchange (FX) to provide a Ruby library for obtaining FX rates. That and a handy web interface to demo the functionality of the library.

Interface

Here's how a client would expect to use the library where GBP is the base currency and USD is the counter currency:

```
ExchangeRate.at(Date.today, 'GBP', 'USD')
```

Data Source

During development, the data source of FX rates will be the 90-day European Central Bank (ECB) feed:

<http://www.ecb.europa.eu/stats/eurofxref/eurofxref-hist-90d.xml>

It's likely we'll use an alternative provider in production.

Data Storage

We don't want to be beholden to the ECB website in order for our library to work, so the data should be pre-fetched and stored locally. You can assume we'll be doing this once a day using cron for now.

When requesting a rate, the library should load it from the store, not from the feed.

Web App

To demonstrate the library, we're going to hook it up to a Ruby-based web app that demonstrates converting between the available currencies for a given date, defaulting to today.

Here's how it might look:

A Web Page

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http://

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FX-u-like

Date:

20/10/2011

Amount:

100

From:

From CCY

▼

To:

To CCY

▼

Convert