
forex-python Documentation

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Free Foreign exchange rates, bitcoin prices and currency conversion.

CHAPTER 1

Features:

- List all currency rates.
- BitCoin price for all currencies.
- Converting amount to BitCoins.
- Get historical rates for any day since 1999.
- Conversion rate for one currency(ex; USD to INR).
- Convert amount from one currency to other.(‘USD 10\$’ to INR)
- Currency Symbols
- Currency names

Contents:

1.1 Installation

The recommended way to install the Debug Toolbar is via pip:

```
$ pip install forex-python
```

Install from development branch:

```
$ pip install git+https://github.com/MicroPyramid/forex-python.git
```

Note: forex-python uses [requests](#) to make API calls.

1.2 Usage Examples:

1.2.1 Currency Rates

1. list all latest currency rates for “USD”::

```
>>> from forex_python.converter import CurrencyRates
>>> c = CurrencyRates()
>>> c.get_rates('USD') # you can directly call get_rates('USD')
{'IDR': 13625.0, 'BGN': 1.7433, 'ILS': 3.8794, 'GBP': 0.68641, 'DKK': 6.
↳ 6289, 'CAD': 1.3106, 'JPY': 110.36, 'HUF': 282.36, 'RON': 4.0162, 'MYR
↳ ': 4.081, 'SEK': 8.3419, 'SGD': 1.3815, 'HKD': 7.7673, 'AUD': 1.3833, u
↳ 'CHF': 0.99144, 'KRW': 1187.3, 'CNY': 6.5475, 'TRY': 2.9839, 'HRK': 6.
↳ 6731, 'NZD': 1.4777, 'THB': 35.73, 'EUR': 0.89135, 'NOK': 8.3212, 'RUB
↳ ': 66.774, 'INR': 67.473, 'MXN': 18.41, 'CZK': 24.089, 'BRL': 3.5473, u
↳ 'PLN': 3.94, 'PHP': 46.775, 'ZAR': 15.747}
```

2. List all Currency rates for “USD” on 2012-09-05::

```
>>> date_obj
datetime.datetime(2014, 5, 23, 18, 36, 28, 151012)
>>> c.get_rates('USD', date_obj) # same as get_rates('USD', date_obj)
{'IDR': 11612.0, 'BGN': 1.4349, 'ILS': 3.4861, 'GBP': 0.5938, 'DKK': 5.
↳ 4762, 'CAD': 1.0901, 'JPY': 101.92, 'HUF': 222.66, 'RON': 3.2359, 'MYR
↳ ': 3.2101, 'EUR': 0.73368, 'SEK': 6.6471, 'SGD': 1.2527, 'HKD': 7.7519,
↳ 'AUD': 1.0845, 'CHF': 0.89582, 'KRW': 1024.9, 'CNY': 6.2377, 'TRY': 2.
↳ 0888, 'HRK': 5.5751, 'NZD': 1.1707, 'THB': 32.6, 'LTL': 2.5332, 'NOK':
↳ 5.9652, 'RUB': 34.122, 'INR': 58.509, 'MXN': 12.893, 'CZK': 20.131, u
↳ 'BRL': 2.2178, 'PLN': 3.0544, 'PHP': 43.721, 'ZAR': 10.356}
```

3. Get conversion rate from USD to INR::

```
>>> c.get_rate('USD', 'INR') # same as get_rate('USD', 'INR')
67.473 # return type float
```

4. Get conversion rate from USD to INR on 2014-05-23::

```
>>> date_obj
datetime.datetime(2014, 5, 23, 18, 36, 28, 151012)
>>> c.get_rate('USD', 'INR', date_obj) # get_rate('USD', 'INR', date_obj)
58.509
```

5. Convert amount from USD to INR::

```
>>> c.convert('USD', 'INR', 10) # convert('USD', 'INR', 10)
674.73
```

6. Convert amount from USD to INR based on 2014-05-23 exchange rates::

```
>>> date_obj
datetime.datetime(2014, 5, 23, 18, 36, 28, 151012)
>>> c.convert('USD', 'INR', 10, date_obj)
585.09
```

7. Force use of Decimal::


```
>>> from forex_python.converter import CurrencyRates
>>> c = CurrencyRates(force_decimal=True)
>>> c.convert('USD', 'INR', Decimal('10.45'))
Decimal('705.09')
>>> c.convert('USD', 'INR', 10)
DecimalFloatMismatchError: convert requires amount parameter is of type_
↳Decimal when use_decimal=True
```

8. Detect use of Decimal::

```
>>> from forex_python.converter import CurrencyRates
>>> c = CurrencyRates()
>>> c.convert('USD', 'INR', Decimal('10.45'))
Decimal('705.09')
>>> c.convert('USD', 'INR', 10)
674.73
```

1.2.2 Bitcoin Prices:

1. Get latest price of one Bitcoin::

```
>>> from forex_python.bitcoin import BtcConverter
>>> b = BtcConverter() # add "force_decimal=True" parameter to get Decimal_
↳rates
>>> b.get_latest_price('EUR') # you can directly call get_latest_price('EUR
↳')
476.5225 # return type float
```

2. Get price of Bitcoin based on previous date::

```
>>> date_obj
datetime.datetime(2016, 5, 18, 19, 39, 36, 815417)
>>> b.get_previous_price('USD', date_obj) # get_previous_price('USD', date_
↳obj)
453.378
```

3. Convert Amount to bitcoins::

```
>>> b.convert_to_btc(5000, 'USD') # convert_to_btc(5000, 'USD')
9.36345369116708
```

4. Convert Amount to bitcoins based on previous date prices::

```
>>> date_obj
datetime.datetime(2016, 5, 18, 19, 39, 36, 815417)
>>> b.convert_to_btc_on(5000, 'USD', date_obj) # convert_to_btc_on(5000,
↳'USD', date_obj)
11.028325150316071
```

5. Convert Bitcoins to valid currency amount based on latest price::

```
>>> b.convert_btc_to_cur(1.25, 'USD') # convert_btc_to_cur(1.25, 'USD')
668.1012499999999
```

6. Convert Bitcoins to valid currency amount based on previous date price::

```
>>> date_obj
datetime.datetime(2016, 5, 18, 19, 39, 36, 815417)
>>> b.convert_btc_to_cur_on(1.25, 'EUR', date_obj)
504.23625000000004
```

7. Get list of prices list for given date range::

```
>>> start_date
datetime.datetime(2016, 5, 18, 19, 39, 36, 815417)
>>> end_date
datetime.datetime(2016, 5, 23, 19, 39, 36, 815417)
>>> b.get_previous_price_list('INR', start_date, end_date) # get_previous_
↪price_list('INR', start_date, end_date)
{'u'2016-05-19': 29371.7579, u'2016-05-18': 30402.3169, u'2016-05-22': 29586.
↪3631, u'2016-05-23': 29925.3272, u'2016-05-20': 29864.0256, u'2016-05-21':
↪29884.7449}
```

8. Force use of Decimal::

```
>>> from forex_python.bitcoin import BtcConverter
>>> b = BtcConverter(force_decimal=True)
>>> b.get_latest_price('EUR') # you can directly call get_latest_price('EUR
↪')
Decimal('942.245000000000004547') # return type Decimal
```

9. Get Bitcoin symbol::

```
>>> print(b.get_symbol()) # get_btc_symbol()
B
```

1.2.3 Currency Symbols & Codes

1. Get Currency symbol Using currency code::

```
>>> from forex_python.converter import CurrencyCodes
>>> c = CurrencyCodes()
>>> c.get_symbol('GBP')
u'\xa3'
>>> print c.get_symbol('GBP')
£
>>> print c.get_symbol('EUR')
€
```

2. Get Currency Name using currency code::

```
>>> c.get_currency_name('EUR')
u'European Euro'
>>> c.get_currency_name('INR')
u'Indian rupee'
```

1.3 currency source

1.3.1 <https://ratesapi.io>

<https://ratesapi.io> is a free API for current and historical foreign exchange rates published by European Central Bank. The rates are updated daily 3PM CET.

1.3.2 List of Supported Currency codes.

Updated On 2018-05-08

|EUR - Euro Member Countries **|**IDR - Indonesia Rupiah **|**BGN - Bulgaria Lev **|**ILS - Israel Shekel **|**GBP - United Kingdom Pound **|**DKK - Denmark Krone **|**CAD - Canada Dollar **|**JPY - Japan Yen **|**HUF - Hungary Forint **|**RON - Romania New Leu **|**MYR - Malaysia Ringgit **|**SEK - Sweden Krona **|**SGD - Singapore Dollar **|**HKD - Hong Kong Dollar **|**AUD - Australia Dollar **|**CHF - Switzerland Franc **|**KRW - Korea (South) Won **|**CNY - China Yuan Renminbi **|**TRY - Turkey Lira **|**HRK - Croatia Kuna **|**NZD - New Zealand Dollar **|**THB - Thailand Baht **|**USD - United States Dollar **|**NOK - Norway Krone **|**RUB - Russia Ruble **|**INR - India Rupee **|**MXN - Mexico Peso **|**CZK - Czech Republic Koruna **|**BRL - Brazil Real **|**PLN - Poland Zloty **|**PHP - Philippines Peso **|**ZAR - South Africa Rand

1.3.3 Bitcoin Prices:

Bitcoin prices calculated every minute from CoinDesk API.