1 monthday — Date without year

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This package provides the MonthDay value type for dealing dates without year. It is useful for dealing with birthdays, or anniversaries. Works on Python 2.6, 2.7, 3.2–3.5, PyPy, PyPy3.

```python
>>> from monthday import *
>>> aug_4 = MonthDay(8, 4)
>>> aug_4
monthday.MonthDay(8, 4)
>>> aug_4.date(1988)
datetime.date(1988, 8, 4)
>>> list(aug_4.dates(range(2013, 2016)))
[datetime.date(2013, 8, 4),
 datetime.date(2014, 8, 4),
 datetime.date(2015, 8, 4)]
>>> from datetime import date
>>> MonthDay.from_date(date(2015, 12, 25))
monthday.MonthDay(12, 25)
```

It’s available on PyPI:

$ pip install monthday

Written by Hong Minhee, and distributed under LGPLv3 or later. Find the source code from the GitHub repository.
class monthday.MonthDay(month, day)

Date without year. Useful for birthdays, or anniversaries.

Parameters

- **month** (*numbers.Integral*) – a month number, from 1 to 12
- **day** (*numbers.Integral*) – a day of the month, from 1 to 31 (or 30, or 29)

Raises **ValueError** if month or date is out of valid range

month
  (*numbers.Integral*) The month number, from 1 to 12.

day
  (*numbers.Integral*) The day of the month, from 1 to 31.

date(year)
  Get a date by combining the given year with it.

```python
>>> MonthDay(12, 25).date(2015)
datetime.date(2015, 12, 25)
```

It may raise **ValueError** if February 29 is tried to be combined with a non-leap year e.g.:

```python
>>> feb_29 = MonthDay(2, 29)
>>> feb_29.date(2012)
datetime.date(2012, 2, 29)
>>> feb_29.date(2013)
Traceback (most recent call last):
...
ValueError: since 2013 is not a leap year, monthday.MonthDay(2, 29) can't be combined with 2013
```

Parameters **year** (*numbers.Integral*) – a year to combine with

Returns a **datetime.date** with the given year

Return type **datetime.date**

Raises **ValueError** when year is not a leap year while it's MonthDay(2, 29)

dates(years, error_invalid_dates=True)
  Get dates by combining the given years with it.
>>> list(MonthDay(8, 4).dates(range(1988, 1992)))
[datetime.date(1988, 8, 4), datetime.date(1989, 8, 4),
 datetime.date(1990, 8, 4), datetime.date(1991, 8, 4)]

It may raise ValueError if there happen to be any invalid dates in the result, e.g. February 29 for non-leap years:

>>> feb_29 = MonthDay(2, 29)
>>> list(feb_29.dates(range(2011, 2017)))
Traceback (most recent call last):
...
ValueError: since 2010 is not a leap year,
monthday.MonthDay(2, 29) can't be combined with 2010

If you want to simply ignore these invalid dates in the result, set error_invalid_dates to False e.g.:

>>> list(feb_29.dates(range(2011, 2017), error_invalid_dates=False))
[datetime.date(2012, 2, 29), datetime.date(2016, 2, 29)]

But the result length might be shorter than the input years list.

If you want to match the length of the input and the result, set error_invalid_dates to None — it will replace invalid dates in the result with None values e.g.:

>>> list(feb_29.dates(range(2011, 2017), error_invalid_dates=None))
[None, datetime.date(2012, 2, 29), None, None, None, datetime.date(2016, 2, 29)]

Parameters

- **years** (Iterable) – years to combine with

- **error_invalid_dates** (bool, type(None)) – if set to True, raise ValueError for invalid dates. if set to False, just ignore invalid dates — the result length might be shorter than the input years list. if set to None, fill None values instead of invalid dates — the result length must be the same to the input year list. True by default

Returns datetime.date values with the given years' order

Return type Iterable

Raises

- **ValueError** – if error_invalid_dates is set to True and there happen to be any invalid dates in the result

- **TypeError** – if years is not iterable of integers

classmethod from_date(date)

Get only MonthDay from the given date.

Parameters **date** (datetime.date, datetime.datetime) – the date or date/time

Returns MonthDay without date's year

Return type MonthDay
2.1 Version 0.9.1

To be released.

2.2 Version 0.9.0

The first alpha version. Released on November 29, 2015.
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