

In [1]:

```
%matplotlib inline

from http.client import HTTPSConnection
from icalendar import Calendar
import pandas as pd
import matplotlib.pyplot as plt
```

In [2]:

```
with open('C:/Users/Tomson/Documents/ical_url.txt', 'r') as f:
    ical_url = f.read()

c = HTTPSConnection('calendar.google.com')
c.request('GET', ical_url)
c = c.getresponse()

(c.status, c.reason)
```

Out[2]:

```
(200, 'OK')
```

In [3]:

```
ical_raw = c.read()

ical_raw[:100]
```

Out[3]:

```
b'BEGIN:VCALENDAR\r\nPRODID:-//Google Inc//Google Calendar 70.9054//EN\r\nVE
RSION:2.0\r\nCALSCALE:GREGORIAN\r'
```

In [4]:

```

ical = Calendar.from_ical(ical_raw)

events = [e for e in ical.walk('vevent') if e['SUMMARY'].lower().startswith('weight')]
events = [dict(kg=float(e['SUMMARY'][7:-3]), time=e['DTSTART'].dt) for e in events]

df = pd.DataFrame(events).sort_values('time').reset_index(drop=True)
df = df.set_index('time')
df['target'] = df.iloc[0].kg + (df.index - df.index[0]).total_seconds() / 604800

df

```

Out[4]:

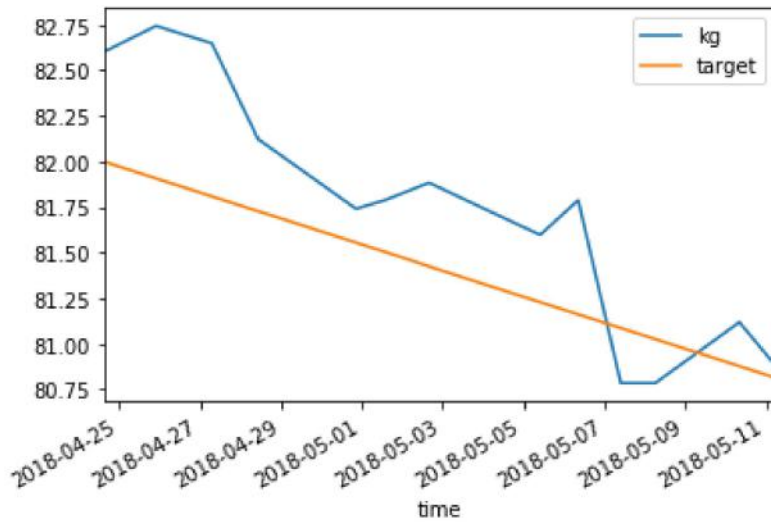
	kg	target
2018-04-24 14:50:17+00:00	82.6005	82.000000
2018-04-25 22:01:18+00:00	82.7439	81.907192
2018-04-27 07:06:38+00:00	82.6483	81.808713
2018-04-28 10:36:11+00:00	82.1225	81.726890
2018-04-30 20:36:29+00:00	81.7401	81.554256
2018-05-01 13:49:22+00:00	81.7879	81.503022
2018-05-02 15:59:58+00:00	81.8835	81.425115
2018-05-05 09:50:47+00:00	81.5967	81.229142
2018-05-06 08:29:10+00:00	81.7879	81.161762
2018-05-07 09:44:59+00:00	80.7841	81.086572
2018-05-08 06:15:52+00:00	80.7841	81.025517
2018-05-10 08:13:14+00:00	81.1187	80.876838
2018-05-11 05:43:51+00:00	80.8797	80.812819

In [5]:

```
df.plot.line()
```

Out[5]:

&lt;matplotlib.axes.\_subplots.AxesSubplot at 0x1da215a85c0&gt;



In [ ]: