1-introduction

March 8, 2023

1 What is pandas-python? Introduction and Installation

Pandas is python module that makes data science easy and effective

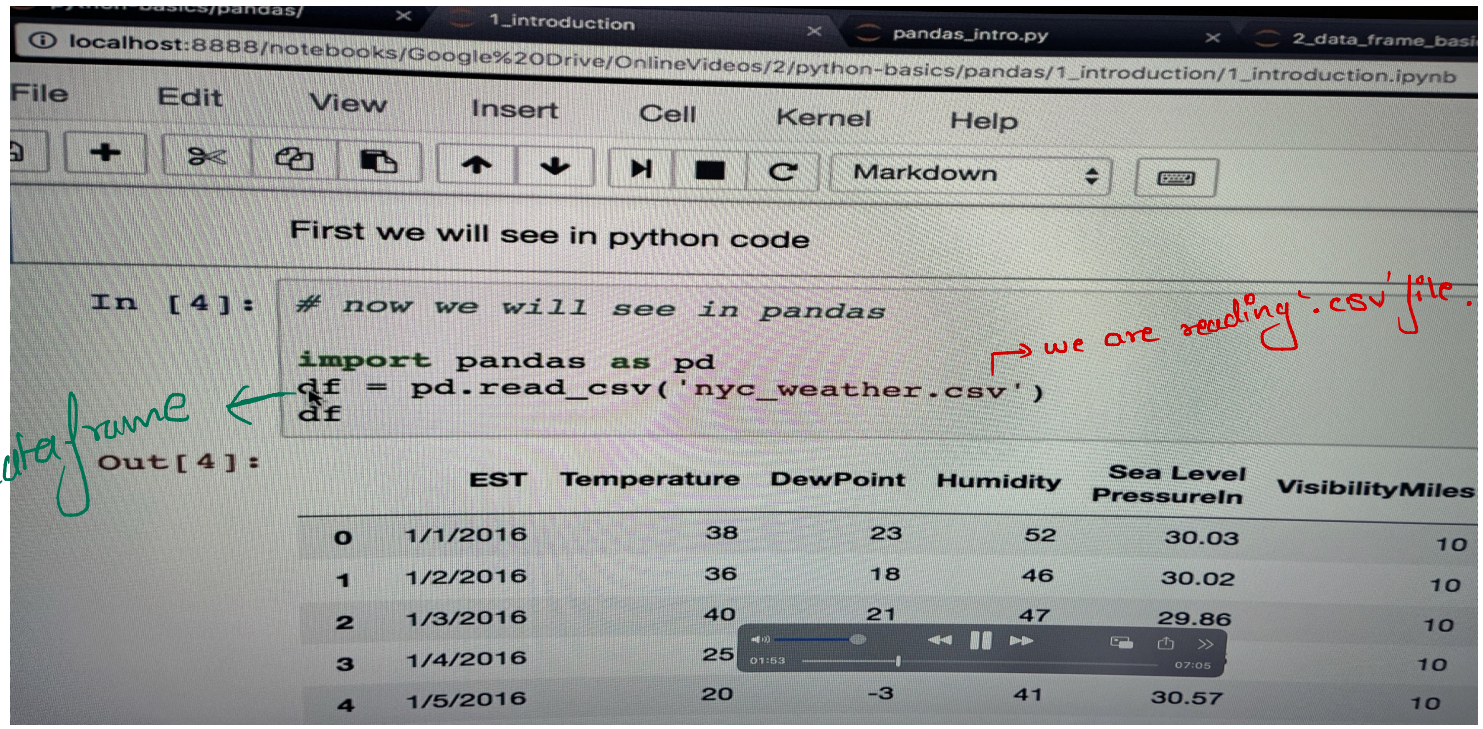
Weather dataset

Questions?

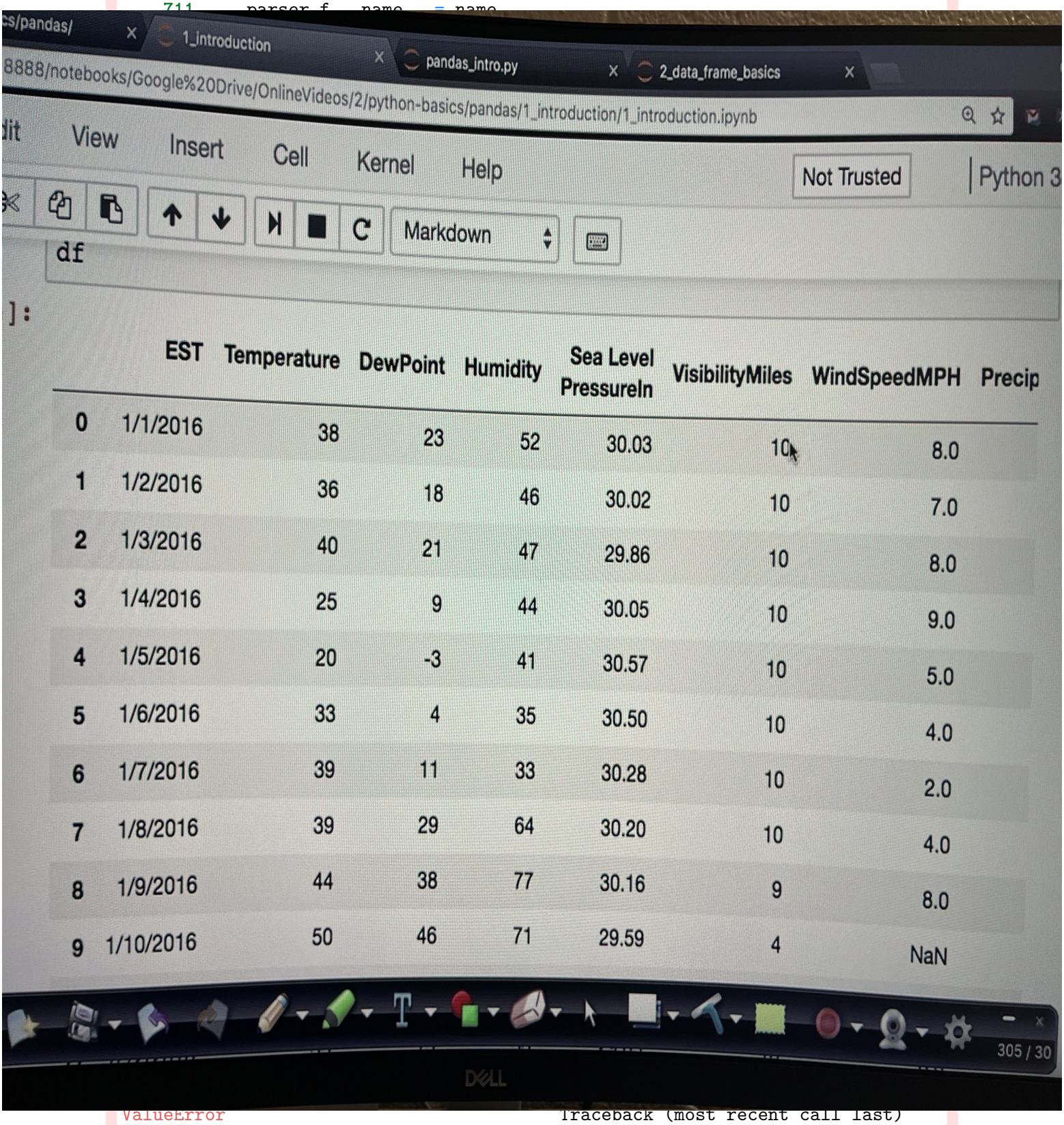
1. What was the maximum temparature in new york in the month of january?
2. On which days did it rains?
3. What was the average speed of wind during the month?

First we will see in python code

```
[ ]: # now we will see in pandas
import pandas as pd
df = pd.read_csv("https://drive.google.com/file/d/
  ↪1KxwFsL6IF7OD_XN28kjxl0-amnELIhZ8/view?usp=sharing")
df
```



```
710
711        parser.f    name    = name
```



	EST	Temperature	DewPoint	Humidity	Sea Level PressureIn	VisibilityMiles	WindSpeedMPH	Precip
0	1/1/2016	38	23	52	30.03	10	8.0	
1	1/2/2016	36	18	46	30.02	10	7.0	
2	1/3/2016	40	21	47	29.86	10	8.0	
3	1/4/2016	25	9	44	30.05	10	9.0	
4	1/5/2016	20	-3	41	30.57	10	5.0	
5	1/6/2016	33	4	35	30.50	10	4.0	
6	1/7/2016	39	11	33	30.28	10	2.0	
7	1/8/2016	39	29	64	30.20	10	4.0	
8	1/9/2016	44	38	77	30.16	9	8.0	
9	1/10/2016	50	46	71	29.59	4	NaN	


```
ValueError                                Traceback (most recent call last)
<ipython-input-6-f83e04cff7df> in <module>()
```

```
      1 from google.colab import drive
----> 2 drive.mount('https://drive.google.com/file/d/
 ↪1KxwFsL6IF7OD_XN28kjxl0-amnELIhZ8/view?usp=sharing')

/usr/local/lib/python3.6/dist-packages/google/colab/drive.py in␣
 ↪mount(mountpoint, force_remount)
    128       # Prompt appearing here means something went wrong with the drive␣
 ↪binary.
    129       d.terminate(force=True)
--> 130       raise ValueError('mount failed')
    131     elif case == 2:
    132       # Not already authorized, so do the authorization dance.

ValueError: mount failed
```

[ ]:
```
#get the maximum temparature
df['Temperature'].max()
```

[ ]: 50

[ ]:
```
#to know which day it rains
df['EST'][df['Events'] == 'Rain']
```

boolean expression. 'If it's true then print'.

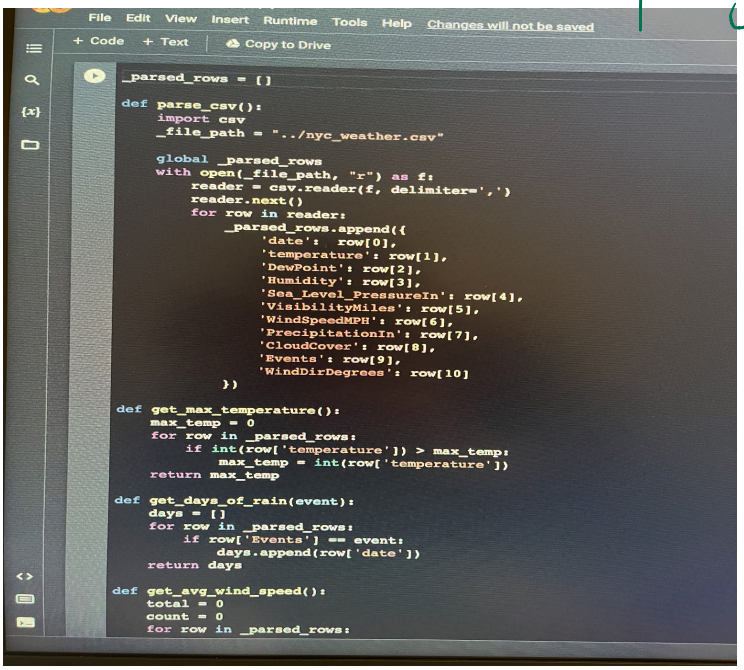
[ ]:
```
8      1/9/2016
9     1/10/2016
15    1/16/2016
26    1/27/2016
Name: EST, dtype: object
```

[ ]:
```
#3. average wind speed
df['WindSpeedMPH'].mean()
```

[ ]: 6.8928571428571432

2 Installation

pip3 install pandas



if you don't have panda then you will have to write that much of code.

OR

you can use numpy.