changedtemperature_my_birthday

July 30, 2021

[20]:
```
import csv
import matplotlib.pyplot as plt
import random
```

[6]:
```
data: [] = list()
highest_temperature: [] = list()
data = csv.reader(open('data/seoul.csv', 'rt', encoding ='UTF-8'))
```

[7]:
```
next(data)
```

[7]:
```
[' ', ' ', '  (℃)', '  (℃)', '  (℃)']
```

[8]:
```
ls = list(data)
```

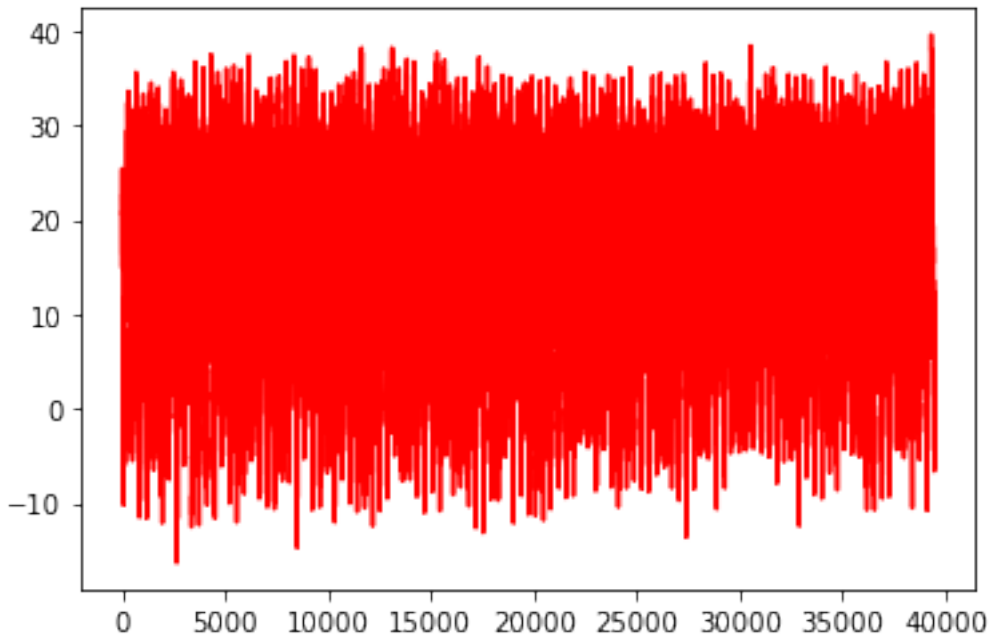
[18]:
```
#print([i[-1] for i in ls])
```

[11]:
```
highest_temperature=[]
[highest_temperature.append(float(i[-1])) for i in ls if i[-1] != '']
print(f'{len(highest_temperature)} ')
```

```
39463
```

[12]:
```
plt.plot(highest_temperature, 'r') #red
plt.figure(figsize=(20, 2))
```

[12]:
```
<Figure size 1440x144 with 0 Axes>
```



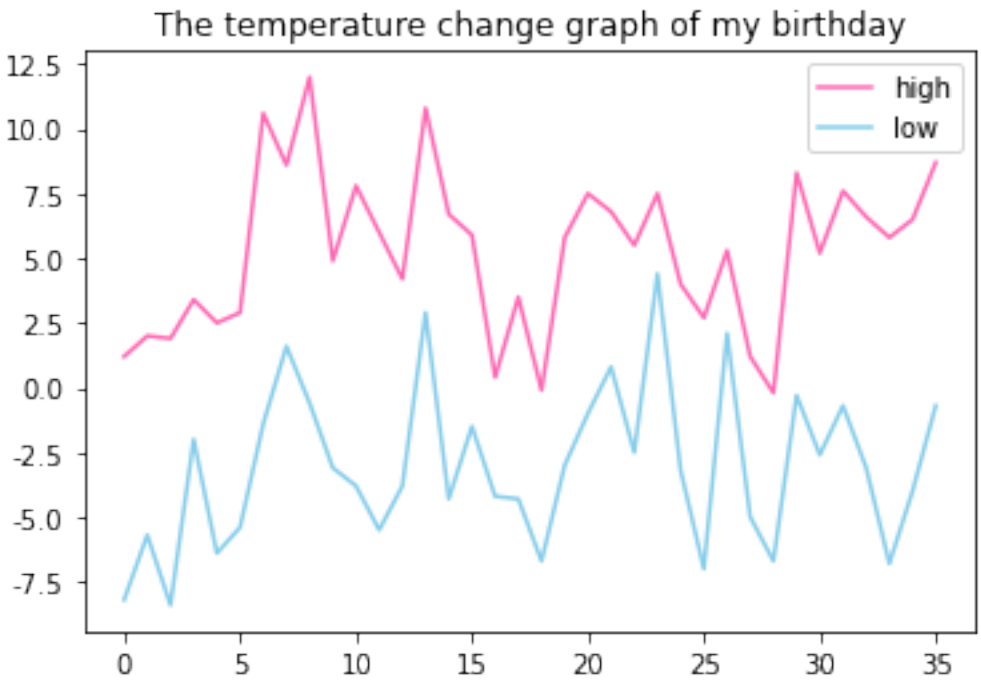

```
<Figure size 1440x144 with 0 Axes>
```

[13]:
```
high = [] #
low = [] #
```

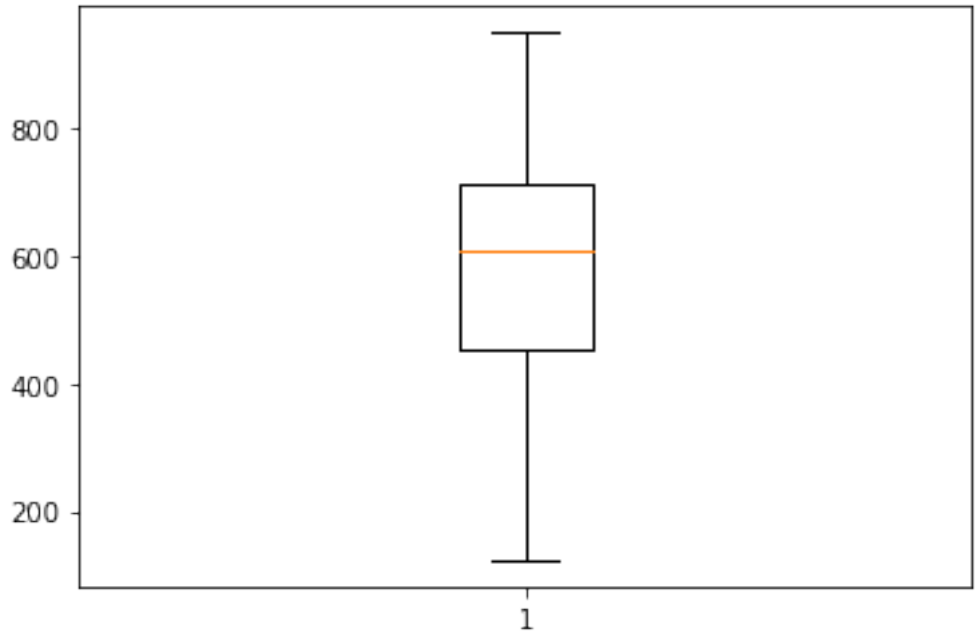
[14]:
```
for i in ls:
    if i[-1] != '' and i[-2] != "":
        if 1983 <= int(i[0].split('-')[0]):
            if i[0].split('-')[1] == "02" and i[0].split('-')[2] == '14':
                high.append(float(i[-1]))
                low.append(float(i[-2]))
```

[17]:
```
plt.rc('font', family="Malgun Gothic")
plt.rcParams['axes.unicode_minus']=False
plt.title('The temperature change graph of my birthday')
plt.plot(high, 'hotpink', label='high')
plt.plot(low, 'skyblue', label='low')
plt.legend()
```

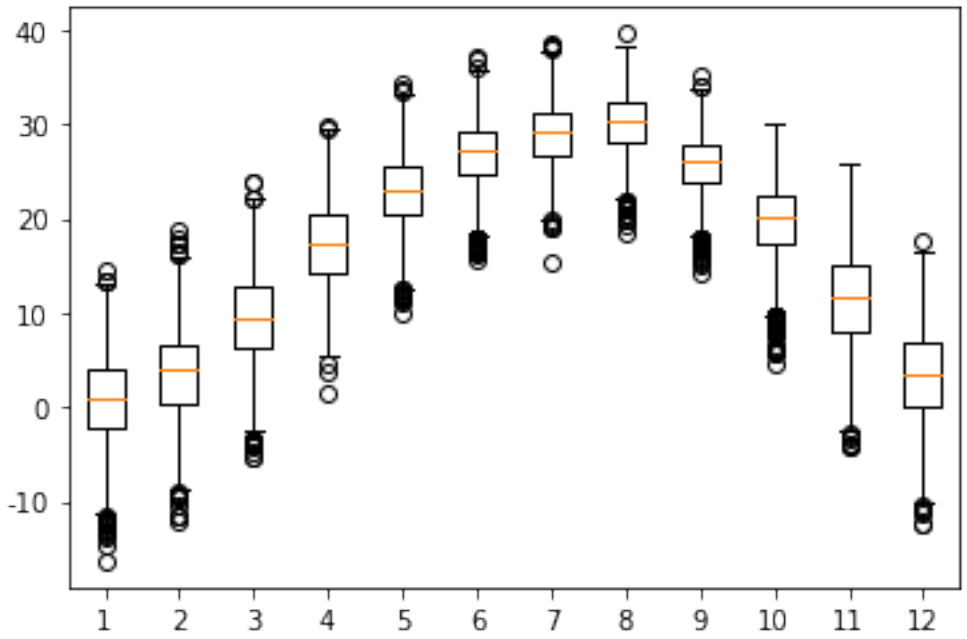
[17]:
```
<matplotlib.legend.Legend at 0x7fdfc29484f0>
```



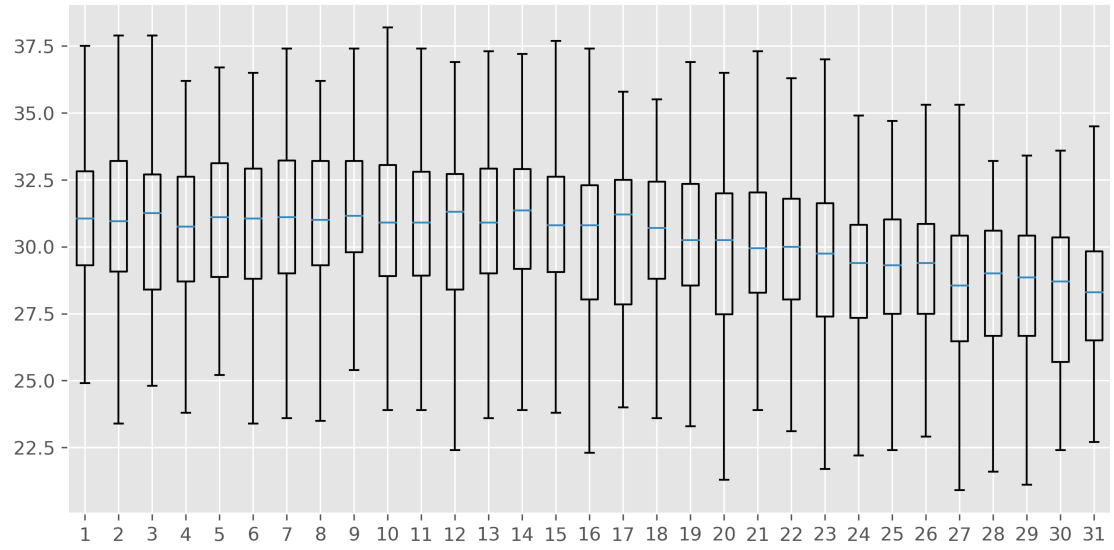
[21]:
```
arr = []
[arr.append(random.randint(1, 1000))for i in range(13)]
plt.boxplot(arr)
plt.show()
```



[22]:
```
month = [[], [], [], [], [], [], [], [], [], [], [], []]
# for i in arr:
#     if i[-1] != '':
#         month[int(i[0].split('-')[1])-1].append(float(i[-1]))
[month[int(i[0].split('-')[1]) - 1].append(float(i[-1])) for i in ls if i[-1] !
 ↪= '']
plt.boxplot(month)
plt.show()
```



[23]:
```
day = []
[day.append([]) for i in range(31)]
[day[int(i[0].split('-')[2]) -1].append(float(i[-1]))
     for i in ls
        if i[-1] != ''
            if i[0].split('-')[1] == '08']
plt.style.use('ggplot') # Graph Style
plt.figure(figsize=(10, 5), dpi=300) # Graph Size
plt.boxplot(day, showfliers=False) # Omit Outlier
plt.show()
```


37.5
35.0
32.5
30.0
27.5
25.0
22.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

[ ]: