ChangedTemperatureONMyBirthday

July 30, 2021

[92]:
```
import csv
import matplotlib.pyplot as plt
```

[93]:
```
'''
next()           .
function       header     .
consumer       data  header     .
row[ , ,  (℃),  (℃),  (℃)]     -1  .
data : [] = list()  list    data  list()          .
,                  .        .
data : [] = None
def save_highest_temperatures(self):
     data = list()
 ,                 .        .
data : [] = list()
'''
```

[93]:
```
'\nnext()           .\nfunction       header     .\nconsumer
data  header     .\nrow[ , ,  (℃),  (℃),  (℃)]     -1  .\ndata :
[] = list()  list    data  list()          .\n ,
   .        . \ndata : [] = None\ndef save_highest_temperatures(self):\n
data = list()\n  ,                 .        . \ndata : [] =
list()\n'
```

[94]:
```
data = csv.reader(open('../data/seoul.csv','rt', encoding='utf-8'))
```

[95]:
```
next(data)
```

[95]:
```
[' ', ' ', '  (℃)', '  (℃)', '  (℃)']
```

[96]:
```
ls = list(data)
```

[97]:
```
#print([i for i in ls])
```

[98]:
```
#print([i[-1] for i in ls]) #show_highest_temperature
```

[99]:
```
highest_temperatures = []
[highest_temperatures.append(float(i[-1]))for i in ls if i[-1]!='']
print(f' {len(highest_temperatures)}')
```

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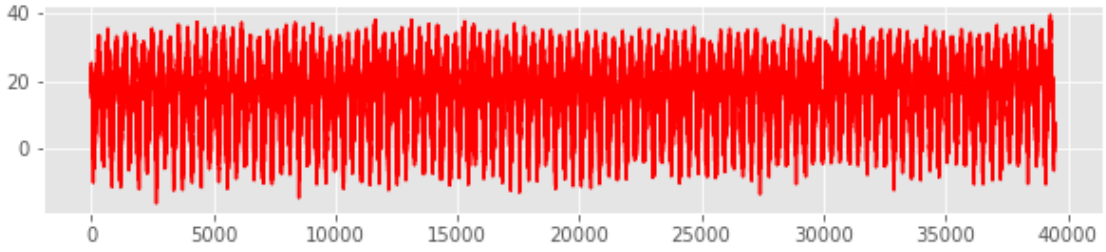
 39463
```

[100]:
```
plt.figure(figsize=(10,2))
plt.plot(highest_temperatures,'r')
```

[100]:
```
[<matplotlib.lines.Line2D at 0x7fb84d670670>]
```

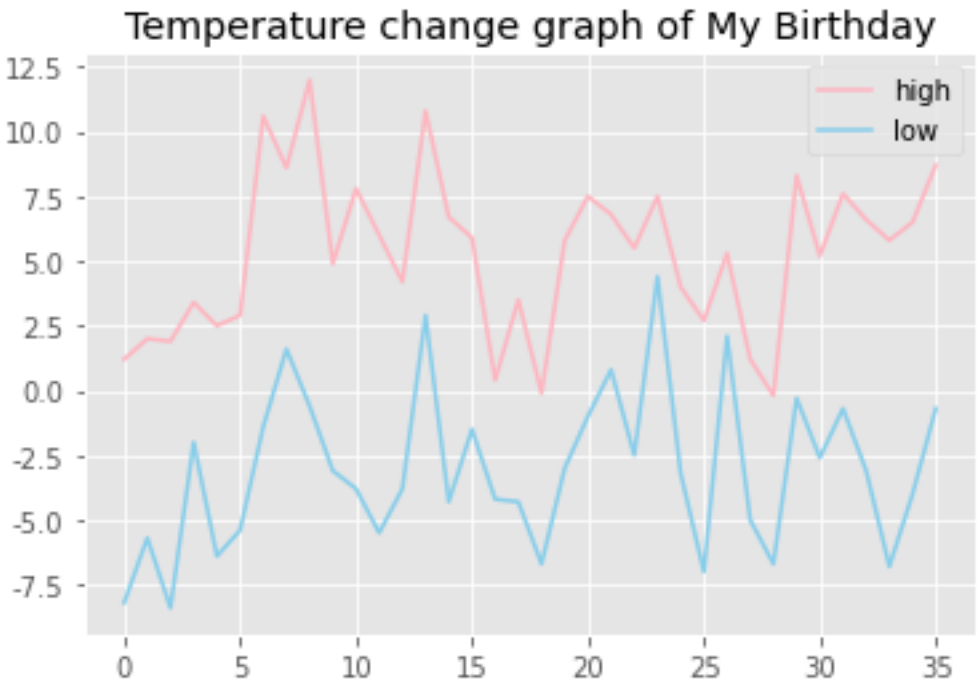


[101]:
```
high = [] # highest_temperature
low = [] # lowest_temperature
```

[102]:
```
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]))
```

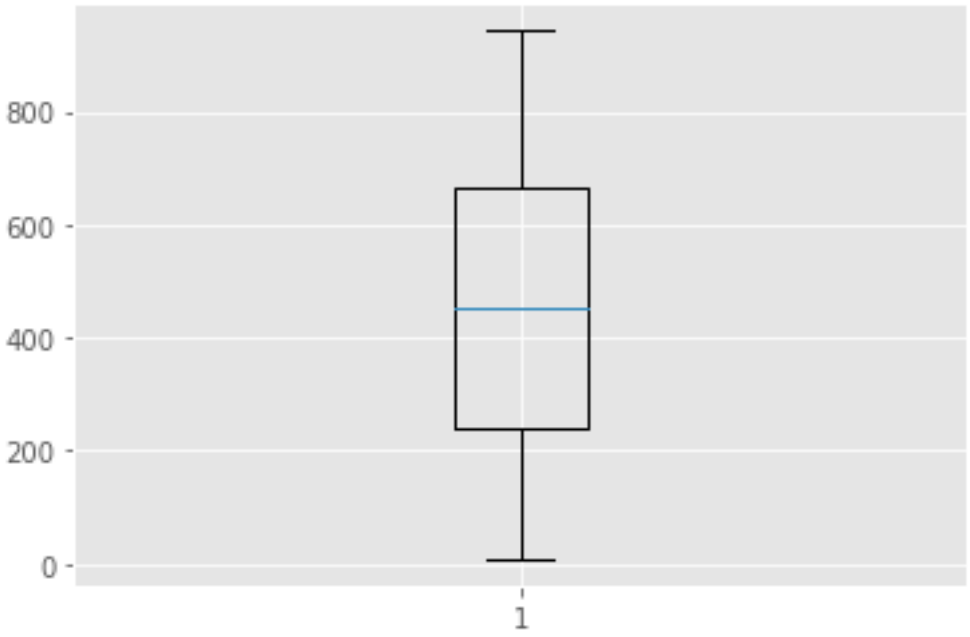
[109]:
```
plt.rcParams['axes.unicode_minus'] = False
plt.title('Temperature change graph of My Birthday')
plt.rcParams['font.family'] = 'Malgun Gothic'
plt.plot(high,'lightpink', label = 'high')
plt.plot(low, 'skyblue', label = 'low')
plt.legend()
```

[109]:
```
<matplotlib.legend.Legend at 0x7fb84c7523d0>
```

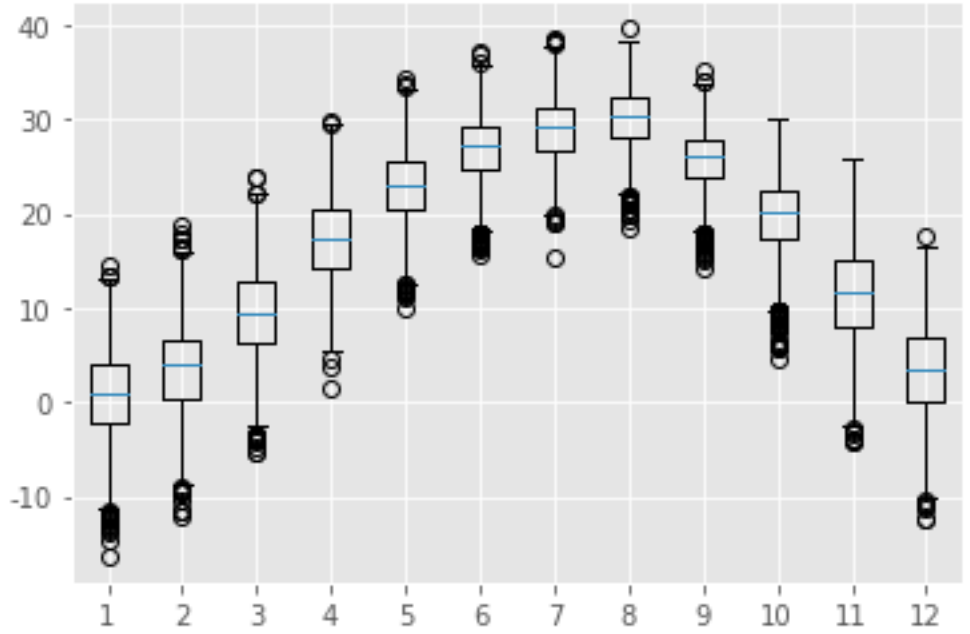


[110]:
```
import random
```

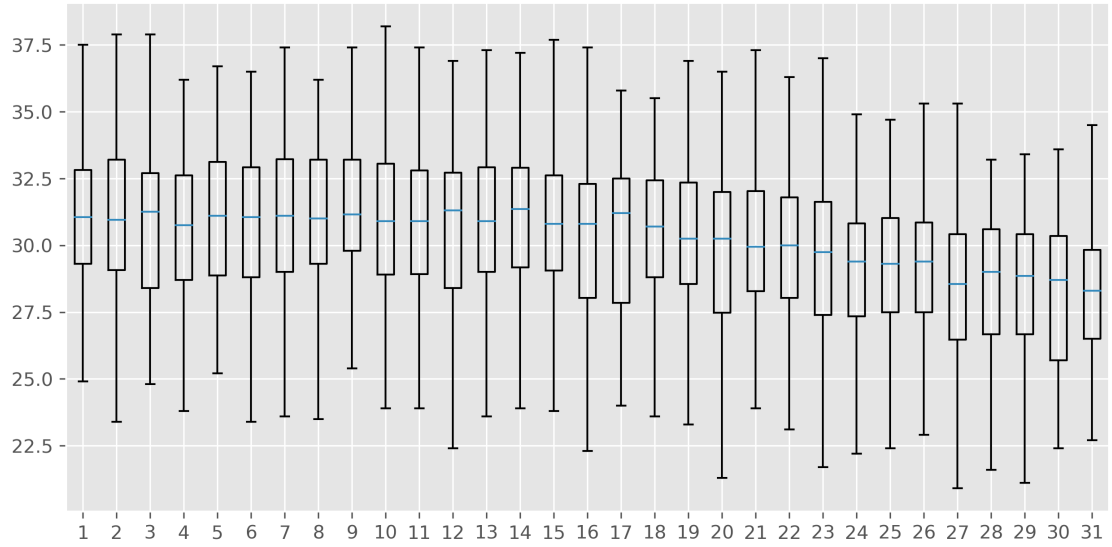
[111]:
```
arr = []
[arr.append(random.randint(1,1000))for i in range(13)]
plt.boxplot(arr)
plt.show()
```



[112]:
```
month=[]
[month.append([]) for i in range(12)]
[month[int(i[0].split('-')[1]) - 1].append(float(i[-1])) for i in ls if i[-1] !
 ↪='']
plt.boxplot(month)
plt.show()
```



[108]:
```
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')
plt.figure(figsize=(10,5), dpi=300)
plt.boxplot(day, showfliers=False)
plt.show()
```



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