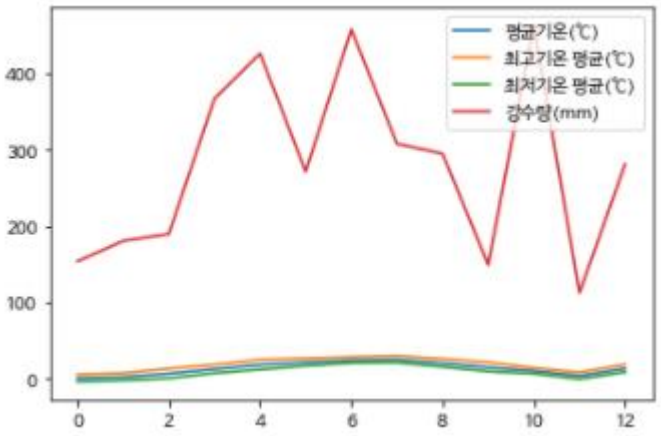
컴퓨터프로그래밍(12) 언론정보학부 광고홍보학과 20175074 손효지

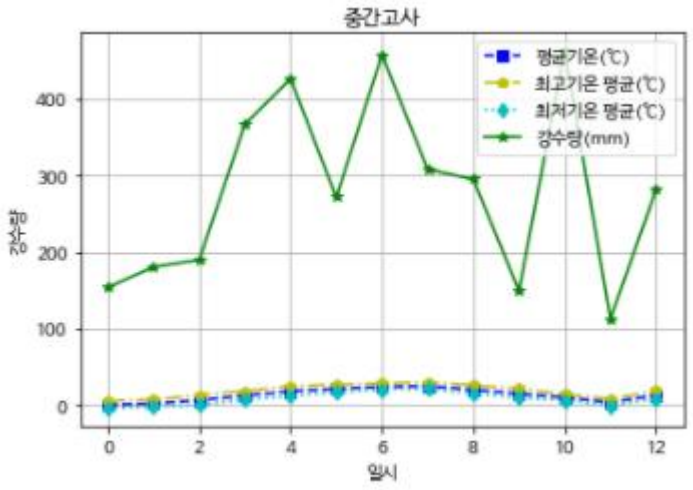
-데이터 전처리

	A	B	C	D	E
1	일시	평균기온(℃	최고기온 평	최저기온 평	강수량(mm)
2	2015-01	0.7	5.7	-3.7	154
3	2015-02	2.1	7.3	-2.4	180.7
4	2015-03	6.7	13.3	0.6	189.9
5	2015-04	12.6	18.4	7.3	367.2
6	2015-05	18.3	24.9	12.1	426.5
7	2015-06	21.4	26.7	16.9	271.5
8	2015-07	24.1	28.5	20.8	458
9	2015-08	25	30	21.2	308.2
10	2015-09	20.3	26	15.6	295.1
11	2015-10	14.9	21.5	9.6	149.5
12	2015-11	10.2	14.2	6.7	463.5
13	2015-12	3.7	8.3	-0.4	112.7
14	평균	13.3	18.7	8.7	281.4

-기본 그래프 캡쳐



-그래프 모양 꾸미기



-전체 코드 캡쳐

```
[12] !apt-get update -qq
     !apt-get install fonts-nanum* -qq
```

```
[13] import matplotlib.font_manager as fm
     fm._rebuild()
```

```
[14] import matplotlib.pyplot as plt
     plt.rc('font',family='NanumBarunGothic')
```

```
[15] from google.colab import files
     uploaded=files.upload()
```

파일 선택 rain.csv

- **rain.csv**(application/haansoftcsv) - 444 bytes, last modified: 2020. 10. 15. - 100% done

Saving rain.csv to rain (5).csv

```
[16] import pandas as pd
     df=pd.read_csv('rain.csv',encoding='949')
     df
```

	일시	평균기온(℃)	최고기온 평균(℃)	최저기온 평균(℃)	강수량(mm)
0	2015-01	0.7	5.7	-3.7	154.0
1	2015-02	2.1	7.3	-2.4	180.7
2	2015-03	6.7	13.3	0.6	189.9
3	2015-04	12.6	18.4	7.3	367.2
4	2015-05	18.3	24.9	12.1	426.5
5	2015-06	21.4	26.7	16.9	271.5
6	2015-07	24.1	28.5	20.8	458.0
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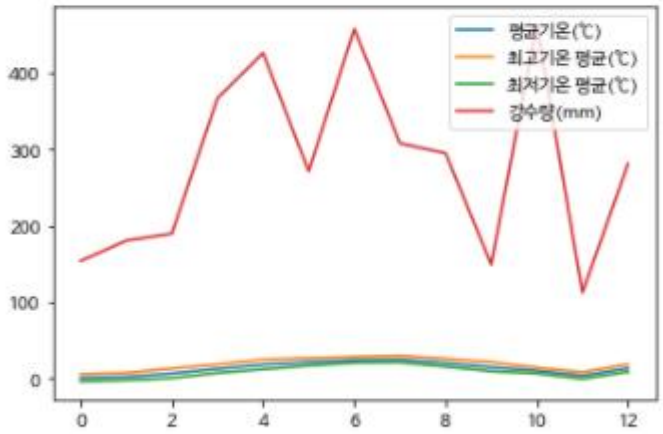
9	2015-10	14.9	21.5	9.6	149.5
10	2015-11	10.2	14.2	6.7	463.5
11	2015-12	3.7	8.3	-0.4	112.7
12	평균	13.3	18.7	8.7	281.4

```
[17] df.plot()
     plt.show()
```




```
[18] rain_plot=df.plot(grid=True, style=['b--s','y-.p','c:d','g-*'])
     rain_plot.set_xticks([0,2,4,6,8,10,12])
     rain_plot.set_xlabel('일시')
     rain_plot.set_ylabel('강수량')
     rain_plot.set_title('중간고사')

     plt.show()
```