

Task 2

Resources

- <https://www.weather.gov/documentation/services-web-api>
- <https://api.weather.gov/points/42.2813,-71.355>
- <https://api.weather.gov/gridpoints/BOX/62,85/forecast/hourly>

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Get weather from web service

```
jason = webread("https://api.weather.gov/gridpoints/BOX/62,85/forecast/hourly");  
% pol = jason.geometry.coordinates; geosscatter(pol(:, :, 1), pol(:, :, 2))
```

Build Timetable

```
T = struct2table(jason.properties.periods);  
time = datetime(T.startTime, "InputFormat", "uuuu-MM-dd'T'HH:mm:sssZZZZZ", "TimeZone", "America/New_York");  
temperature = T.temperature;  
TT = timetable(time, temperature)
```

TT = 156x1 timetable

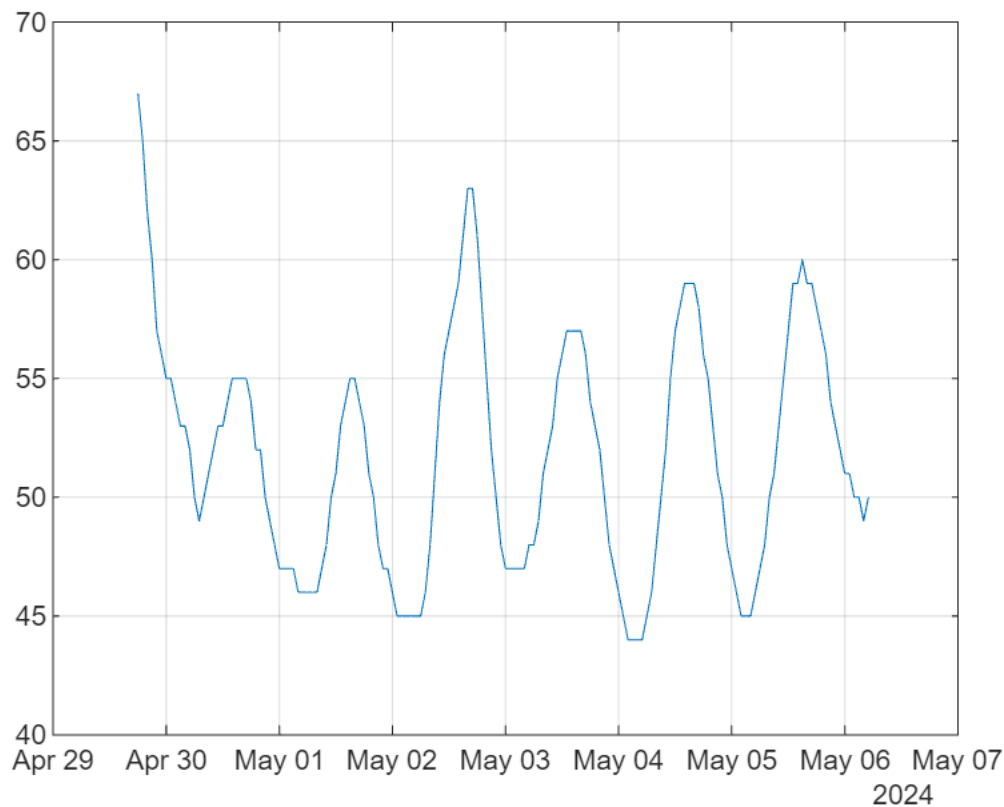
	time	temperature
1	29-Apr-2024 18:00:00	67
2	29-Apr-2024 19:00:00	65
3	29-Apr-2024 20:00:00	62
4	29-Apr-2024 21:00:00	60
5	29-Apr-2024 22:00:00	57
6	29-Apr-2024 23:00:00	56
7	30-Apr-2024 00:00:00	55
8	30-Apr-2024 01:00:00	55
9	30-Apr-2024 02:00:00	54
10	30-Apr-2024 03:00:00	53
11	30-Apr-2024 04:00:00	53
12	30-Apr-2024 05:00:00	52

	time	temperature
13	30-Apr-2024 06:00:00	50
14	30-Apr-2024 07:00:00	49

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Plot data over time

```
plot(TT.time,TT.temperature)
grid on
```



Export data

```
writetimetable(TT, 'Data/natick.csv')
```

Create reports

```
export('Tasks/task2.mlx', 'Reports/task2.md');
export('Tasks/task2.mlx', 'Reports/task2.ipynb');
export('Tasks/task2.mlx', 'Reports/task2.docx');
export('Tasks/task2.mlx', 'Reports/task2.pdf');
export('Tasks/task2.mlx', 'Reports/task2.html');
```