

For homework 13, you will create a script that can parse NMEA messages. The script should determine the GPS location and the date it was visited as specified by the messages.

The file `my_travels.txt` contains NMEA messages for 5 different tourist locations around the world. Write a python script that will extract the address of the locations and the date the locations were visited from the messages, using the following method:

- Open the file for reading
- Read the messages (maybe line by line)
- Check if the message contains a date and/or coordinates
 - The message type indicates the type of information available
 - Any message type that contains the date can be used
 - Any message type that contains the location can be used
- Use the GeoPy library to determine the address of the location
 - Only the name of the location (tourist attraction) and its country should be printed
- Write (print) the date that the location was visited and the short address (in English)
 - Any date format can be used but it should have the day, month and year included (the sample output displays the different options available)
 - The location should take the format: *attraction name, country*
 - The address and date for a location should only be printed once. So if an NMEA message with the same address is seen 4 times, only the first (*or second...*) occurrence should result in the address being printed

Points

- Python script **[4 pts]**
- Correct locations **[1 pt]** – assigned even if the script doesn't work
- Correct dates **[1 pt]** – assigned even if the script doesn't work

Notes

1. There are only 5 locations – tourist attractions in different countries
2. Each location was visited on a different date
3. Use <https://gpsd.gitlab.io/gpsd/NMEA.html> to understand message structure
4. `.split(',')` will be very useful
5. Remember N and E represent positive coordinate values and S and W represent negative coordinate values
 - Example: 5130.82834,N,00005.89916,W in DD format is 51.513805,-0.098318

Sample Output

```
My World Travels
=====
Date: 04-09-2018
Visited: The Giza Pyramid Complex, Egypt

Date: 17-April-2016
Visited: Taj Mahal, India

Date: 10/07/2010
Visited: Kissing Students Fountain, Estonia

Date: 2015/August/19
Visited: Tallinn Airport, Estonia

Date: 2017-12-20
Visited: SkyWheel Helsinki, Finland
```

My output for the homework_test file

My World Travels

=====

Date: 06/02/2020

Visited: Ice Hotel, Sweden

Date: 06/07/2019

Visited: St Paul's Cathedral, United Kingdom

Date: 15/11/2021

Visited: The University of Sydney, Australia

Due Date: Check Moodle for date

Late Submission Deadline: Check Moodle for date (usually 1 week after due date)

Submission Files:

- Only the python script if it works correctly *or*
- The attempted python script and a file containing the dates and locations *or*
- A file containing the dates and locations

Location: Moodle Homework13 link