Syntax Problem #14

Objectives

1. Read in remote data, use units with data
2. Practice use array slicing Python syntax
3. Use MetPy to compute new values
4. Use the datetime to work with dates/times

Due by the end of class.

Problem

1. Write a Python program that reads in upperair data from the University of Wyoming archive using the Siphon module for Dodge City, KS on 6 May 2007 at 00 UTC. Attach units to the data in order to calculate the potential temperature and virtual potential temperature of the sounding data. Print to standard output the Pressure, Temperature, Dewpoint, Potential Temperature, and Virtual Potential Temperature.

Notes:

- Double check to make sure you have the correct output and conversion for temperature.
- Make sure documentation (e.g., comment block and comments throughout code) is present in your source code
- Make output informative so that anyone running your program understand what is being produced without seeing the assignment.
- Siphon has great functionality to read a handful of remote datasets. Be sure to look over the documentation available at https://unidata.github.io/siphon/latest/index.html, specifically the functionality to get remote data from the Wyoming sounding archive, https://unidata.github.io/siphon/latest/examples/upperair/Wyoming_Request.html#sphx-glr-examples-upperair-wyoming-request-py
- Name the program **syntax14_<username>.py** and place a copy in `/archive/courses/met330/syntax_problems`