By the time you read this, a change in the weather will be near. At least so says the National Weather Service. As I write this project description, there is snow in Montana and the Logan, Utah area is forecast to have a chance of snow this weekend. Will it happen? How accurate is the forecast?

In Assignment 4, you collected weather observations and forecast data for a location of your choice. Using the location that you chose for Assignment 4, I want you to assess the accuracy of air temperature forecasts made by the National Weather Service:

The data you collected in Assignment 4 is a useful start, and the code you developed will be very helpful. But, you will need to collect new data to successfully complete this project. The more data you collect, the better - i.e., collecting more data and using it as evidence for your assessment will help your grade. Here are the specifics regarding the data that you are to collect and use:
A URL of the following form shall be used to collect actual observed conditions:
http://www.wrh.noaa.gov/mesowest/getobextXml.php?sid=KLGU&num=72 (Links to an external site.)Links to an external site.. NOTE: You may be able to change the "num" parameter to obtain data for a longer time period. I have observed quirky behavior in doing this, so don't count on it to work in a pinch, particularly at the last minute.
A URL of the following form shall be used to collect forecast data:
https://graphical.weather.gov/xml/sample_products/browser_interface/ndfdXMLclient.php?lat=41.78652&lon=-111.85187&product=time-series&temp=temp&maxt=maxt&mint=mint (Links to an external site.)Links to an external site.. NOTE: This URL has been modified to include temperature forecasts corresponding to hours of the day, in addition to the min and max temperatures for a given day.
In the examples above, I used the Logan airport as the location. You shall use the location you chose in Assignment 4.
Apply techniques and tools covered in this class to conduct and present your evaluation. In general, this means that you are not to use third-party packages. Of course, there are reasonable exceptions to this including matplotlib and libraries for processing XML that we have discussed. If unsure, ask. (I will say "no" to libraries such as Pandas). Specifically, this means that you are to write (original) Python scripts to conduct your analysis, and incorporate code that our author has developed, including that which we have expanded on in class.
Note that the NDFD forecast data, at the time it is published, covers time lags ranging from present to 7 days into the future. I would like you to attempt to assess forecasts for as many time lags as possible. You will need to organize your data relative to the time at which a forecast was made, the time covered by the forecast, and the subsequent, actual condition (air temperature) that occurred at that time. Organize you analysis by time lag. Example: forecasts for one hour from present, three hours from present, six hours from present, twelve hours from present, ..., 48 hours from present, etc.

The data is critical to your task. Plan and execute well.

In an organized fashion, please submit a single zip archive containing the following before the posted deadline:
A report presenting your findings: I.e, how accurate are the forecasts for your location?
A summary of your methodology.
Data collected and used for your evaluation.
Source code developed and used for your evaluation.
If any of this is unclear, ask me about it. Realize, though, that my willingness and ability to answer questions may diminish as we approach the due date.
You have four weeks to complete this task. Don't put it off too long ...