User Acceptance Test Script: User Story 1

(Last updated 4-12-2021)

1. The user will begin by accessing the GitHub repository that contains all Weather Eyes project related files and ensuring the files are downloaded and accessible in a common directory. (Please refer to the Deployment document for a list of all programs that will need to be collected and available in the same folder).
2. The user will start the program by running PastWeatherInquiry.py
3. After running PastWeatherInquiry.py, a text-based user interface will print a greeting.
   1. (Note: Aspirationally, the program is being developed so that it will provide a default display of the current day’s predicted high temperature, predicted low temperature, the times at which the predicted high and low temperatures are expected to occur, chance of precipitation, and predicted total precipitation.)
4. Next, the user will be prompted to enter a previous date or a previous date interval to retrieve historic weather information for the specified date or interval. The prompt will ask the user to enter the date in the following format: 3-letter Mon/2-digit Day/4-digit Year, e.g. “Apr 07 2021”. Alternatively, they can enter an interval in the format of “Apr 07 2021 – April 10 2021”
5. The initial UI will be designed in a robust manner that recognizes when the user’s input does not match the input format requested by the interface prompt. If input does not meet the prompt’s expectations, the user will be prompted to re-enter the data.
6. After typing a single date and pressing enter, the a text printout of the following information will be provided:
   1. The officially recorded high temperature for the specified day’s 24 hour period from weather.gov.
   2. The officially recorded low temperature for the specified day’s 24 hour period from weather.gov.
   3. Total officially recorded rain precipitation for the 24 hours encompassed by the specified day from weather.gov.
   4. Total officially recorded snow precipitation for the 24 hours encompassed by the specified day from weather.gov.
      1. (Note: For a future flight, the output will be updated to include the times at which the daily high and low temperatures occurred.)
7. Alternatively, after entering a date range, the a text printout of the following information will be provided:
   1. The single, officially recorded high temperature across all days within the specified time interval from weather.gov.
   2. The single, officially recorded low temperature across all days within the specified time interval from weather.gov.
   3. Total officially recorded rain precipitation across the interval from weather.gov.
   4. Total officially recorded snow precipitation across the interval from weather.gov.
      1. (Note: For a future flight, the output will be updated to include the times at which the daily high and low temperatures occurred.)
      2. (Note: For a future flight, the output will be updated to include the option to request hourly intervals.)
8. After the requested information has been provided, the UI will provide the user with an opportunity to enter another previous date or interval to retrieve the related weather information, or give the user the option to exit the program.
9. As an example of a single date entry, if a user enters Apr 01 2021, they will receive the following output:

For the date of Apr 01 2021

High Temperature: 39  
Low Temperature: 24  
Rainfall: 0.09 in.  
Snowfall: 0.8 in.

1. As an example of an interval entry, if a user enters Apr 01 2021 – Apr 02 2021, they will receive the following output:

For the interval of ['Apr', '01', '2021'] to ['Apr', '02', '2021']

The high across these days is: 40  
The low across these days is: 20  
The total rainfall across these days is: 0.09 in.  
The total snowfall across these days is: 0.8 in.

1. The data from the examples provided above can be verified by going to: <https://forecast.weather.gov/product.php?site=NWS&issuedby=PIT&product=CF6>
2. The program will continue to loop indefinitely until the user enters ‘exit’ to close the program.