User Guide Version 1.0: Temperature Predictor at La Guardia Airport

Summary

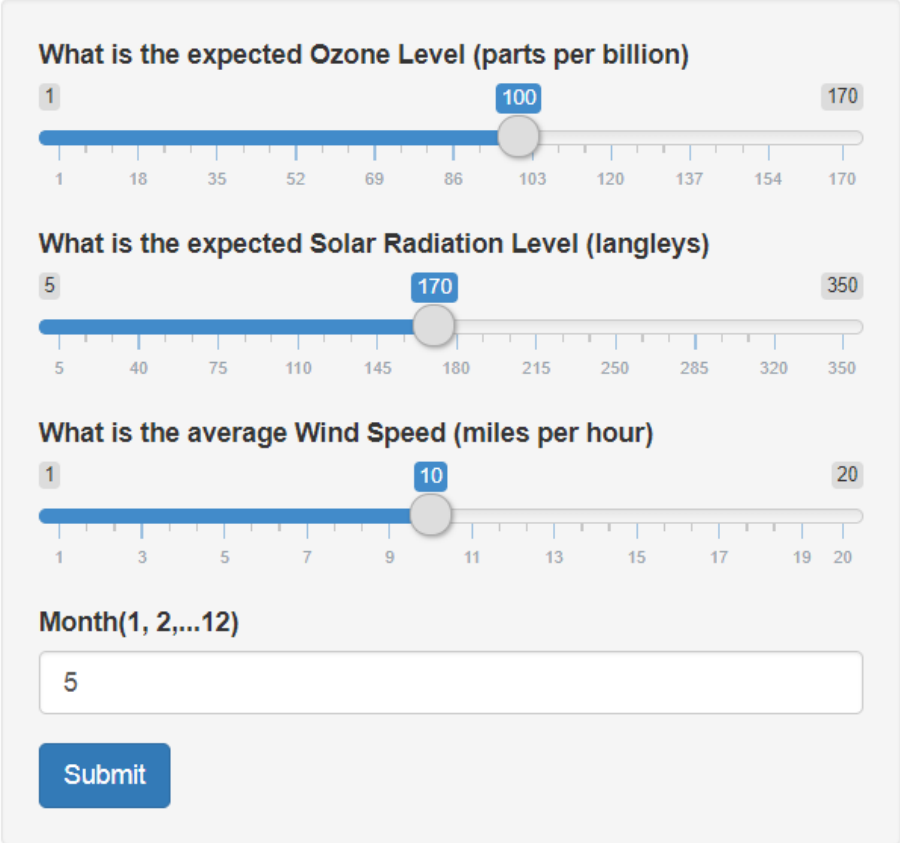
This application is a temperature predictor for NYC La Guardia Airport. Basically by using historic data measurements over some variables described below, the application is taking advantage of linear prediction algorithms to forecast the temperature at such airport. To predict the temperature, daily readings of the following air quality variables, have been used, having a time stamp for any combination of them:

- Ozone: Mean ozone in parts per billion from 1300 to 1500 hours at Roosevelt Island
- Solar Radiation: Solar radiation in Langleys in the frequency band 4000–7700 Angstroms from 0800 to 1200 hours at Central Park
- Wind: Average wind speed in miles per hour at 0700 and 1000 hours at LaGuardia Airport
- Temp: Maximum daily temperature in degrees Fahrenheit at La Guardia Airport.
- Month: Month of the year when the measure was taken

User Interface

The application is hosted in the following website: https://billarin.shinyapps.io/Data_Products/

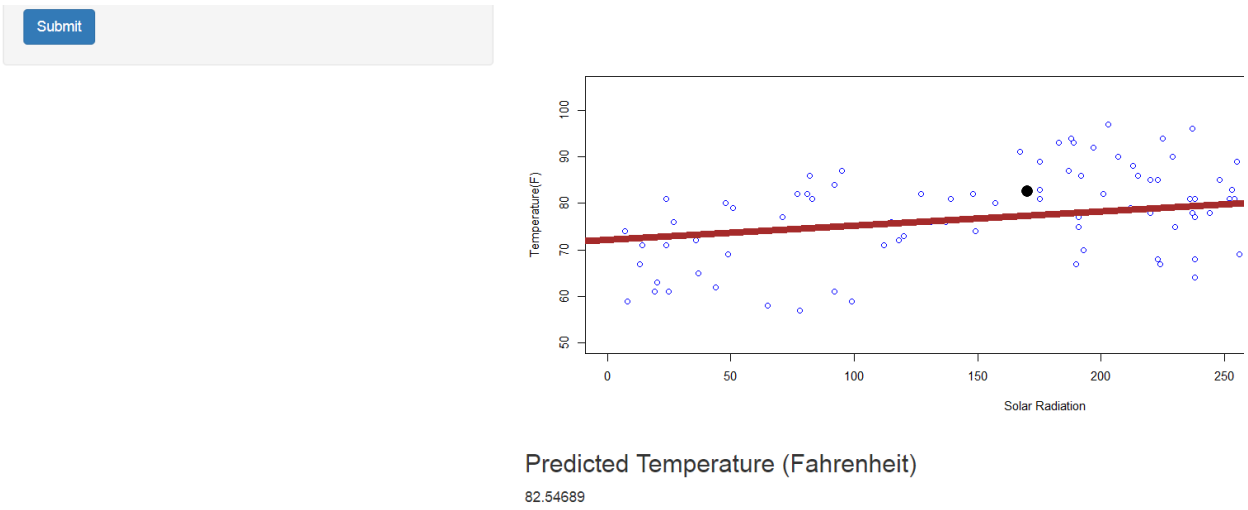
Once in the website, please move the sliders along (ie. see picture below with the user interface) to pick the values of the temperature predictor variables (ie. Ozone, Solar Radiation, Wind and Month).



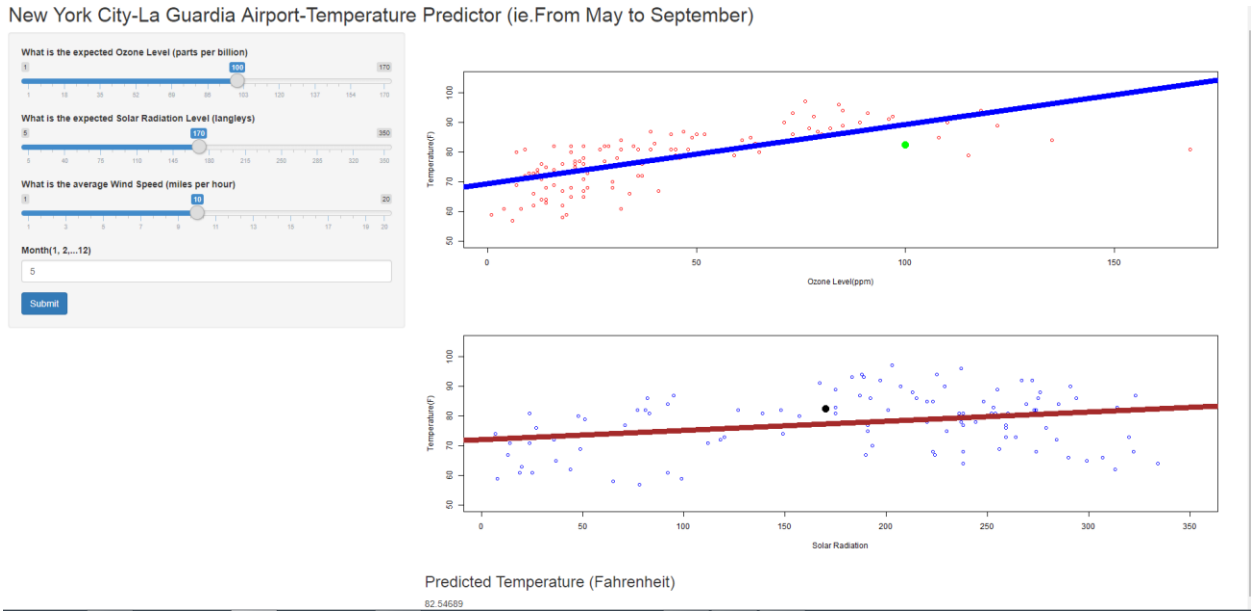
For the month selection used the following key:

- May (5), June (6), July (7), August (8), September (9)

Once the sliders are placed on the desired values and the month has been selected, please click on the submit button (ie. on the upper left hand side below the sliders) for the temperature to be predicted/calculated at the bottom of the page as follows:



The user interface also includes two plots to display by using two spots (ie. green and black), how the calculated value relates to the temperature vs Solar Radiation and Temperature VS Ozone, after running simple regression algorithms for the both of them.



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