User Guide

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This is a program visualizing information of vehicle collisions in New York over the past year (Nov. 2015 till Oct. 2016).

We found out that weather is also an essential factor regarding collision rates. Therefore, along with the collision data set, we analyzed the daily weather for the past year.

First, download the folder **llq205** we posted on Github, in which all the datasets and codes required to run the program are located. You would also need to download the latest version of the python Bokeh library by running the following code in your console: `pip install bokeh`

To run the program, change your directory to the downloaded folder, and input the following code in your console: `python finalproject.py`

The user may have the option to choose from 4 different modules:

1. The overall collisions distribution in a year
2. Collision vs. Weather comparison in daily/monthly basis
3. Collisions info by location: input a zipcode within the NYC area
4. Summary of the correlation between vehicle collisions and rainfall/snowfall

By receiving inputs, plots and texts will be printed accordingly. For the program to work continuously, you would need to close all pop-ups to continue. Follow the prompt and enjoy our program!

Note:

Sometimes Google Map in the Bokeh server does not work as expected, try another time or ignore this feature and continue on!

Along with the execution codes, there is a python file named "Date_cleaning.py" with our data cleaning process included.

To run unit tests, run the following code in your console:
`python -m unittest -v test.py`

We obtain our collisions dataset via NYC open data sets:
https://nycopendata.socrata.com/

And the weather data from National Weather Service website:
http://w2.weather.gov/climate/index.php?wfo=okx