**Project 3**

After learning about Data Science in depth, it is now time to implement the knowledge gained through this course in real-life scenarios. We will provide you with four scenarios where you need to implement data science solutions.

 Perform a service request data analysis of New York City 311 calls.

* Import a 311 NYC service request.
* Read or Convert the columns ‘Created Date’ and Closed Date’ to datetime datatype and create a new column ‘Request\_Closing\_Time’ as the time elapsed between request creation and request closing. (Hint: Explore the package/module datetime) in seconds
* Provide major insights/patterns that you can offer in a visual format (graphs or tables). At least 4 major conclusions that you can come up with after generic data mining.
* Order the complaint types based on the average ‘Request\_Closing\_Time’ grouping them for different locations.
* Perform statistical test for the following:

Please note: For the below statements you need to state the Null and Alternate and then provide a statistical test to accept or reject the Null Hypothesis along with the corresponding ‘p value’.

* + Whether the average response time across complaint types are similar or not (overall)
  + Is the Complaint Type and location related?

Good Luck!