

In [26]:

```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt

import warnings
warnings.filterwarnings('ignore')
```

In [27]:

```
nyc = pd.read_csv("311_Service_Requests_from_2010_to_Present.csv")
```

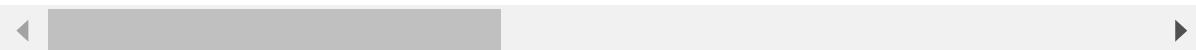
In [28]:

```
nyc.head()
```

Out[28]:

| | Unique Key | Created Date | Closed Date | Agency | Agency Name | Complaint Type | Descriptor | Location Typ |
|---|------------|------------------------|---------------|--------|---------------------------------|-------------------------|------------------------------|----------------|
| 0 | 32310363 | 12/31/2015 11:59:45 PM | 01-01-16 0:55 | NYPD | New York City Police Department | Noise - Street/Sidewalk | Loud Music/Party | Street/Sidewal |
| 1 | 32309934 | 12/31/2015 11:59:44 PM | 01-01-16 1:26 | NYPD | New York City Police Department | Blocked Driveway | No Access | Street/Sidewal |
| 2 | 32309159 | 12/31/2015 11:59:29 PM | 01-01-16 4:51 | NYPD | New York City Police Department | Blocked Driveway | No Access | Street/Sidewal |
| 3 | 32305098 | 12/31/2015 11:57:46 PM | 01-01-16 7:43 | NYPD | New York City Police Department | Illegal Parking | Commercial Overnight Parking | Street/Sidewal |
| 4 | 32306529 | 12/31/2015 11:56:58 PM | 01-01-16 3:24 | NYPD | New York City Police Department | Illegal Parking | Blocked Sidewalk | Street/Sidewal |

5 rows × 53 columns



In [29]:

```
nyc.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 300698 entries, 0 to 300697
Data columns (total 53 columns):
 #   Column                                Non-Null Count  Dtype
---  -
 0   Unique Key                           300698 non-null int64
 1   Created Date                          300698 non-null object
 2   Closed Date                           298534 non-null object
 3   Agency                               300698 non-null object
 4   Agency Name                           300698 non-null object
 5   Complaint Type                        300698 non-null object
 6   Descriptor                            294784 non-null object
 7   Location Type                         300567 non-null object
 8   Incident Zip                          298083 non-null float64
 9   Incident Address                      256288 non-null object
10   Street Name                           256288 non-null object
11   Cross Street 1                        251419 non-null object
12   Cross Street 2                        250919 non-null object
13   Intersection Street 1                 43858 non-null object
```

In [30]:

```
nyc.shape
```

Out[30]:

```
(300698, 53)
```

In [31]:

```
nyc['Created Date'] = pd.to_datetime(nyc['Created Date'])
```

In [32]:

nyc.info()

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 300698 entries, 0 to 300697
Data columns (total 53 columns):
#   Column                                Non-Null Count  Dtype
---  -
0   Unique Key                          300698 non-null int64
1   Created Date                        300698 non-null datetime64[ns]
2   Closed Date                         298534 non-null object
3   Agency                             300698 non-null object
4   Agency Name                        300698 non-null object
5   Complaint Type                     300698 non-null object
6   Descriptor                         294784 non-null object
7   Location Type                      300567 non-null object
8   Incident Zip                       298083 non-null float64
9   Incident Address                   256288 non-null object
10  Street Name                        256288 non-null object
11  Cross Street 1                     251419 non-null object
12  Cross Street 2                     250919 non-null object
13  Intersection Street 1              43858 non-null object
14  Intersection Street 2              43362 non-null object
15  Address Type                       297883 non-null object
16  City                               298084 non-null object
17  Landmark                           349 non-null object
18  Facility Type                      298527 non-null object
19  Status                             300698 non-null object
20  Due Date                           300695 non-null object
21  Resolution Description              300698 non-null object
22  Resolution Action Updated Date      298511 non-null object
23  Community Board                    300698 non-null object
24  Borough                            300698 non-null object
25  X Coordinate (State Plane)          297158 non-null float64
26  Y Coordinate (State Plane)          297158 non-null float64
27  Park Facility Name                  300698 non-null object
28  Park Borough                       300698 non-null object
29  School Name                         300698 non-null object
30  School Number                      300698 non-null object
31  School Region                      300697 non-null object
32  School Code                        300697 non-null object
33  School Phone Number                300698 non-null object
34  School Address                     300698 non-null object
35  School City                        300698 non-null object
36  School State                       300698 non-null object
37  School Zip                         300697 non-null object
38  School Not Found                   300698 non-null object
39  School or Citywide Complaint        0 non-null float64
40  Vehicle Type                       0 non-null float64
41  Taxi Company Borough               0 non-null float64
42  Taxi Pick Up Location               0 non-null float64
43  Bridge Highway Name                 243 non-null object
44  Bridge Highway Direction            243 non-null object
45  Road Ramp                           213 non-null object
46  Bridge Highway Segment              213 non-null object
47  Garage Lot Name                     0 non-null float64
48  Ferry Direction                     1 non-null object
49  Ferry Terminal Name                 2 non-null object
50  Latitude                           297158 non-null float64
```

In [33]:

```
nyc['Closed Date'] = pd.to_datetime(nyc['Closed Date'])
```

In [34]:

```
nyc['Request_Closing_Time'] = nyc['Closed Date'] - nyc['Created Date']
```

In [35]:

```
nyc.shape
```

Out[35]:

(300698, 54)

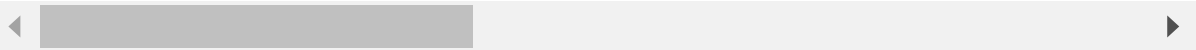
In [36]:

```
nyc.head(1)
```

Out[36]:

| | Unique Key | Created Date | Closed Date | Agency | Agency Name | Complaint Type | Descriptor | Location Type |
|---|------------|---------------------|---------------------|--------|---------------------------------|-------------------------|------------------|-----------------|
| 0 | 32310363 | 2015-12-31 23:59:45 | 2016-01-01 00:55:00 | NYPD | New York City Police Department | Noise - Street/Sidewalk | Loud Music/Party | Street/Sidewalk |

1 rows × 54 columns



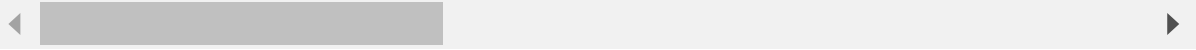
In [37]:

```
nyc['Request_Closing_Time_insec'] = nyc['Request_Closing_Time'].dt.seconds
nyc.head(1)
```

Out[37]:

| | Unique Key | Created Date | Closed Date | Agency | Agency Name | Complaint Type | Descriptor | Location Type |
|---|------------|---------------------|---------------------|--------|---------------------------------|-------------------------|------------------|-----------------|
| 0 | 32310363 | 2015-12-31 23:59:45 | 2016-01-01 00:55:00 | NYPD | New York City Police Department | Noise - Street/Sidewalk | Loud Music/Party | Street/Sidewalk |

1 rows × 55 columns



In [38]:

```
nyc = nyc.drop(labels=['School or Citywide Complaint', 'Vehicle Type', 'Taxi Company Borough'])
```

In [39]:

```
nyc.head(1)
```

Out[39]:

| | Unique Key | Created Date | Closed Date | Agency | Agency Name | Complaint Type | Descriptor | Location Type |
|---|------------|---------------------|---------------------|--------|---------------------------------|-------------------------|------------------|-----------------|
| 0 | 32310363 | 2015-12-31 23:59:45 | 2016-01-01 00:55:00 | NYPD | New York City Police Department | Noise - Street/Sidewalk | Loud Music/Party | Street/Sidewalk |

1 rows × 50 columns

In [40]:

```
nyc.describe().round()
```

Out[40]:

| | Unique Key | Incident Zip | X Coordinate (State Plane) | Y Coordinate (State Plane) | Latitude | Longitude | Request_Closing_Time |
|-------|------------|--------------|----------------------------|----------------------------|----------|-----------|--------------------------|
| count | 300698.0 | 298083.0 | 297158.0 | 297158.0 | 297158.0 | 297158.0 | 29850.0 |
| mean | 31300536.0 | 10849.0 | 1004854.0 | 203755.0 | 41.0 | -74.0 | 0 days 04:18:51.83278286 |
| std | 573855.0 | 583.0 | 21753.0 | 29880.0 | 0.0 | 0.0 | 0 days 06:05:22.14183385 |
| min | 30279480.0 | 83.0 | 913357.0 | 121219.0 | 40.0 | -74.0 | 0 days 00:01:00.000000 |
| 25% | 30801181.0 | 10310.0 | 991975.0 | 183343.0 | 41.0 | -74.0 | 0 days 01:16:00.000000 |
| 50% | 31304364.0 | 11208.0 | 1003158.0 | 201110.0 | 41.0 | -74.0 | 0 days 02:42:55.500000 |
| 75% | 31784465.0 | 11238.0 | 1018372.0 | 224125.0 | 41.0 | -74.0 | 0 days 05:21:00.000000 |
| max | 32310649.0 | 11697.0 | 1067173.0 | 271876.0 | 41.0 | -74.0 | 24 days 16:52:00.000000 |

In [41]:

```
insight1 = nyc[['Complaint Type' , 'Agency']].groupby('Complaint Type').count()  
insight1
```

Out[41]:

| Agency | |
|---------------------------|-------|
| Complaint Type | |
| Agency Issues | 6 |
| Animal Abuse | 7778 |
| Animal in a Park | 1 |
| Bike/Roller/Skate Chronic | 427 |
| Blocked Driveway | 77044 |
| Derelict Vehicle | 17718 |
| Disorderly Youth | 286 |
| Drinking | 1280 |
| Ferry Complaint | 2 |
| Graffiti | 113 |

In [43]:

```
insight1.rename(columns={'Agency': 'Entries'}, inplace=True)
insight1
```

Out[43]:

| | Entries |
|---------------------------|---------|
| Complaint Type | |
| Agency Issues | 6 |
| Animal Abuse | 7778 |
| Animal in a Park | 1 |
| Bike/Roller/Skate Chronic | 427 |
| Blocked Driveway | 77044 |
| Derelict Vehicle | 17718 |
| Disorderly Youth | 286 |
| Drinking | 1280 |
| Ferry Complaint | 2 |
| Graffiti | 113 |
| Homeless Encampment | 4416 |
| Illegal Fireworks | 168 |
| Illegal Parking | 75361 |
| Noise - Commercial | 35577 |
| Noise - House of Worship | 931 |
| Noise - Park | 4042 |
| Noise - Street/Sidewalk | 48612 |
| Noise - Vehicle | 17083 |
| Panhandling | 307 |
| Posting Advertisement | 650 |
| Squeegee | 4 |
| Traffic | 4498 |
| Urinating in Public | 592 |
| Vending | 3802 |

In [44]:

```
insight1.sort_values('Entries',inplace=True,ascending=False)  
insight1
```

Out[44]:

| Entries | |
|---------------------------|-------|
| Complaint Type | |
| Blocked Driveway | 77044 |
| Illegal Parking | 75361 |
| Noise - Street/Sidewalk | 48612 |
| Noise - Commercial | 35577 |
| Derelict Vehicle | 17718 |
| Noise - Vehicle | 17083 |
| Animal Abuse | 7778 |
| Traffic | 4498 |
| Homeless Encampment | 4416 |
| Noise - Park | 4042 |
| Vending | 3802 |
| Drinking | 1280 |
| Noise - House of Worship | 931 |
| Posting Advertisement | 650 |
| Urinating in Public | 592 |
| Bike/Roller/Skate Chronic | 427 |
| Panhandling | 307 |
| Disorderly Youth | 286 |
| Illegal Fireworks | 168 |
| Graffiti | 113 |
| Agency Issues | 6 |
| Squeegee | 4 |
| Ferry Complaint | 2 |
| Animal in a Park | 1 |

In [45]:

```
for x in ['Complaint Type', 'Location Type', 'Agency Name', 'City', 'Status']:
    print(x)
    print(nyc[x].value_counts().head(24))
```

```
Complaint Type
Blocked Driveway          77044
Illegal Parking           75361
Noise - Street/Sidewalk   48612
Noise - Commercial       35577
Derelict Vehicle         17718
Noise - Vehicle          17083
Animal Abuse             7778
Traffic                  4498
Homeless Encampment      4416
Noise - Park             4042
Vending                  3802
Drinking                 1280
Noise - House of Worship  931
Posting Advertisement     650
Urinating in Public       592
Bike/Roller/Skate Chronic 427
Panhandling              307
Disorderly Youth         286
Illegal Fireworks        168
Graffiti                113
Agency Issues            6
Squeegee                 4
Ferry Complaint          2
Animal in a Park         1
Name: Complaint Type, dtype: int64
Location Type
Street/Sidewalk          249299
Store/Commercial         20381
Club/Bar/Restaurant     17360
Residential Building/House 6960
Park/Playground         4773
House of Worship        929
Residential Building     227
Highway                 215
Parking Lot             117
House and Store          93
Vacant Lot              77
Commercial              62
Roadway Tunnel          35
Subway Station          34
Bridge                  2
Terminal                1
Ferry                   1
Park                    1
Name: Location Type, dtype: int64
Agency Name
New York City Police Department 300690
Internal Affairs Bureau         6
NYPD                           2
Name: Agency Name, dtype: int64
City
BROOKLYN          98307
NEW YORK          65994
```

| | |
|---------------------|-------|
| BRONX | 40702 |
| STATEN ISLAND | 12343 |
| JAMAICA | 7296 |
| ASTORIA | 6330 |
| FLUSHING | 5971 |
| RIDGEWOOD | 5163 |
| CORONA | 4295 |
| WOODSIDE | 3544 |
| SOUTH RICHMOND HILL | 2774 |
| OZONE PARK | 2755 |
| EAST ELMHURST | 2734 |
| ELMHURST | 2673 |
| WOODHAVEN | 2464 |
| MASPETH | 2462 |
| LONG ISLAND CITY | 2437 |
| SOUTH OZONE PARK | 2173 |
| RICHMOND HILL | 1904 |
| FRESH MEADOWS | 1899 |
| QUEENS VILLAGE | 1814 |
| MIDDLE VILLAGE | 1765 |
| JACKSON HEIGHTS | 1689 |
| FOREST HILLS | 1688 |

Name: City, dtype: int64

Status

| | |
|--------|--------|
| Closed | 298471 |
|--------|--------|

| | |
|------|------|
| Open | 1439 |
|------|------|

| | |
|----------|-----|
| Assigned | 786 |
|----------|-----|

| | |
|-------|---|
| Draft | 2 |
|-------|---|

Name: Status, dtype: int64

In [46]:

```
insight2 = nyc[['Location Type' , 'Agency']].groupby('Location Type').count()  
insight2.rename(columns={'Agency': 'Entries'},inplace=True)  
insight2.sort_values('Entries',inplace=True,ascending=False)  
insight2
```

Out[46]:

| | Entries |
|----------------------------|---------|
| Location Type | |
| Street/Sidewalk | 249299 |
| Store/Commercial | 20381 |
| Club/Bar/Restaurant | 17360 |
| Residential Building/House | 6960 |
| Park/Playground | 4773 |
| House of Worship | 929 |
| Residential Building | 227 |
| Highway | 215 |
| Parking Lot | 117 |
| House and Store | 93 |
| Vacant Lot | 77 |
| Commercial | 62 |
| Roadway Tunnel | 35 |
| Subway Station | 34 |
| Bridge | 2 |
| Park | 1 |
| Ferry | 1 |
| Terminal | 1 |

In [47]:

```
insight3 = nyc[['City' , 'Agency']].groupby('City').count()
insight3.rename(columns={'Agency': 'Entries'},inplace=True)
insight3.sort_values('Entries',inplace=True,ascending=False)
insight3
```

Out[47]:

| | Entries |
|---------------------|---------|
| City | |
| BROOKLYN | 98307 |
| NEW YORK | 65994 |
| BRONX | 40702 |
| STATEN ISLAND | 12343 |
| JAMAICA | 7296 |
| ASTORIA | 6330 |
| FLUSHING | 5971 |
| RIDGEWOOD | 5163 |
| CORONA | 4295 |
| WOODSIDE | 3544 |
| SOUTH RICHMOND HILL | 2774 |
| OZONE PARK | 2755 |
| EAST ELMHURST | 2734 |
| ELMHURST | 2673 |
| WOODHAVEN | 2464 |
| MASPETH | 2462 |
| LONG ISLAND CITY | 2437 |
| SOUTH OZONE PARK | 2173 |
| RICHMOND HILL | 1904 |
| FRESH MEADOWS | 1899 |
| QUEENS VILLAGE | 1814 |
| MIDDLE VILLAGE | 1765 |
| JACKSON HEIGHTS | 1689 |
| FOREST HILLS | 1688 |
| REGO PARK | 1486 |
| BAYSIDE | 1221 |
| COLLEGE POINT | 1220 |
| FAR ROCKAWAY | 1179 |
| WHITESTONE | 1098 |
| HOLLIS | 1012 |
| HOWARD BEACH | 931 |
| ROSEDALE | 922 |

| | Entries |
|---------------------|---------|
| City | |
| SPRINGFIELD GARDENS | 883 |
| SAINT ALBANS | 834 |
| KEW GARDENS | 771 |
| ROCKAWAY PARK | 745 |
| SUNNYSIDE | 723 |
| Astoria | 717 |
| LITTLE NECK | 559 |
| OAKLAND GARDENS | 551 |
| CAMBRIA HEIGHTS | 477 |
| BELLEROSE | 375 |
| GLEN OAKS | 306 |
| ARVERNE | 220 |
| FLORAL PARK | 152 |
| Long Island City | 134 |
| Woodside | 120 |
| NEW HYDE PARK | 98 |
| CENTRAL PARK | 97 |
| QUEENS | 32 |
| BREEZY POINT | 30 |
| East Elmhurst | 14 |
| Howard Beach | 1 |

In [48]:

```
insight4 = nyc[['Status' , 'Agency']].groupby('Status').count()
insight4.rename(columns={'Agency':'Entries'},inplace=True)
insight4.sort_values('Entries',inplace=True,ascending=False)
insight4
```

Out[48]:

| | Entries |
|----------|---------|
| Status | |
| Closed | 298471 |
| Open | 1439 |
| Assigned | 786 |
| Draft | 2 |

In [49]:

```
insight5 = nyc[['Complaint Type','Location Type','Status', 'Agency']].groupby(['Location Ty
insight5.rename(columns={'Agency': 'Entries'},inplace=True)
insight5.sort_values('Entries',inplace=True,ascending=False)
insight5
```

Out[49]:

| | | | Entries |
|----------------------------|-------------------------|--------|---------|
| Location Type | Complaint Type | Status | |
| Street/Sidewalk | Blocked Driveway | Closed | 76773 |
| | Illegal Parking | Closed | 74497 |
| | Noise - Street/Sidewalk | Closed | 48067 |
| Store/Commercial | Noise - Commercial | Closed | 18401 |
| Street/Sidewalk | Derelict Vehicle | Closed | 17485 |
| | Noise - Vehicle | Closed | 17030 |
| Club/Bar/Restaurant | Noise - Commercial | Closed | 16841 |
| Residential Building/House | Animal Abuse | Closed | 5081 |
| Street/Sidewalk | Traffic | Closed | 4276 |
| Park/Playground | Noise - Park | Closed | 4021 |

In [50]:

```
pd.set_option('display.max_rows',None)
insight5
```

Out[50]:

| | | | Entries |
|----------------------------|-------------------------|--------|---------|
| Location Type | Complaint Type | Status | |
| Street/Sidewalk | Blocked Driveway | Closed | 76773 |
| | Illegal Parking | Closed | 74497 |
| | Noise - Street/Sidewalk | Closed | 48067 |
| Store/Commercial | Noise - Commercial | Closed | 18401 |
| Street/Sidewalk | Derelict Vehicle | Closed | 17485 |
| | Noise - Vehicle | Closed | 17030 |
| Club/Bar/Restaurant | Noise - Commercial | Closed | 16841 |
| Residential Building/House | Animal Abuse | Closed | 5081 |
| Street/Sidewalk | Traffic | Closed | 4276 |
| Park/Playground | Noise - Park | Closed | 4021 |

In [51]:

```
location_grouping = nyc['Location Type'].value_counts()  
location_grouping
```

Out[51]:

| | |
|----------------------------|--------|
| Street/Sidewalk | 249299 |
| Store/Commercial | 20381 |
| Club/Bar/Restaurant | 17360 |
| Residential Building/House | 6960 |
| Park/Playground | 4773 |
| House of Worship | 929 |
| Residential Building | 227 |
| Highway | 215 |
| Parking Lot | 117 |
| House and Store | 93 |
| Vacant Lot | 77 |
| Commercial | 62 |
| Roadway Tunnel | 35 |
| Subway Station | 34 |
| Bridge | 2 |
| Terminal | 1 |
| Ferry | 1 |
| Park | 1 |

Name: Location Type, dtype: int64

In [52]:

```
location_grouping = nyc.groupby(['Location Type'])
Grouping = location_grouping['Complaint Type'].value_counts()
pd.set_option('display.max_rows',None)
Grouping
```

Out[52]:

| Location Type | Complaint Type | |
|----------------------------|---------------------------|-------|
| Bridge | Homeless Encampment | 2 |
| Club/Bar/Restaurant | Noise - Commercial | 16973 |
| | Drinking | 366 |
| | Urinating in Public | 21 |
| Commercial | Animal Abuse | 62 |
| Ferry | Ferry Complaint | 1 |
| Highway | Traffic | 186 |
| | Homeless Encampment | 15 |
| | Derelect Vehicle | 14 |
| House and Store | Animal Abuse | 93 |
| House of Worship | Noise - House of Worship | 929 |
| Park | Animal in a Park | 1 |
| Park/Playground | Noise - Park | 4041 |
| | Homeless Encampment | 353 |
| | Animal Abuse | 123 |
| | Vending | 106 |
| | Drinking | 98 |
| | Urinating in Public | 38 |
| | Illegal Fireworks | 8 |
| | Panhandling | 6 |
| Parking Lot | Animal Abuse | 110 |
| | Posting Advertisement | 7 |
| Residential Building | Animal Abuse | 227 |
| Residential Building/House | Animal Abuse | 5085 |
| | Homeless Encampment | 983 |
| | Drinking | 291 |
| | Vending | 201 |
| | Urinating in Public | 138 |
| | Disorderly Youth | 77 |
| | Graffiti | 56 |
| | Posting Advertisement | 54 |
| | Illegal Fireworks | 33 |
| | Bike/Roller/Skate Chronic | 26 |
| | Panhandling | 16 |
| Roadway Tunnel | Traffic | 29 |
| | Derelect Vehicle | 5 |
| | Homeless Encampment | 1 |
| Store/Commercial | Noise - Commercial | 18598 |
| | Animal Abuse | 522 |
| | Homeless Encampment | 512 |
| | Vending | 432 |
| | Drinking | 90 |
| | Urinating in Public | 66 |
| | Panhandling | 60 |
| | Bike/Roller/Skate Chronic | 53 |
| | Graffiti | 32 |
| | Disorderly Youth | 8 |
| | Posting Advertisement | 6 |
| | Illegal Fireworks | 2 |
| Street/Sidewalk | Blocked Driveway | 77007 |
| | Illegal Parking | 75326 |

| | | |
|------------------------------------|---------------------------|-------|
| | Noise - Street/Sidewalk | 48601 |
| | Derelict Vehicle | 17614 |
| | Noise - Vehicle | 17080 |
| | Traffic | 4278 |
| | Vending | 3061 |
| | Homeless Encampment | 2541 |
| | Animal Abuse | 1531 |
| | Posting Advertisement | 582 |
| | Drinking | 434 |
| | Bike/Roller/Skate Chronic | 348 |
| | Urinating in Public | 316 |
| | Panhandling | 225 |
| | Disorderly Youth | 201 |
| | Illegal Fireworks | 125 |
| | Graffiti | 25 |
| | Squeegee | 4 |
| Subway Station | Animal Abuse | 22 |
| | Urinating in Public | 12 |
| Terminal | Ferry Complaint | 1 |
| Vacant Lot | Derelict Vehicle | 77 |
| Name: Complaint Type, dtype: int64 | | |

In [53]:

```
Grouping.shape
```

Out[53]:

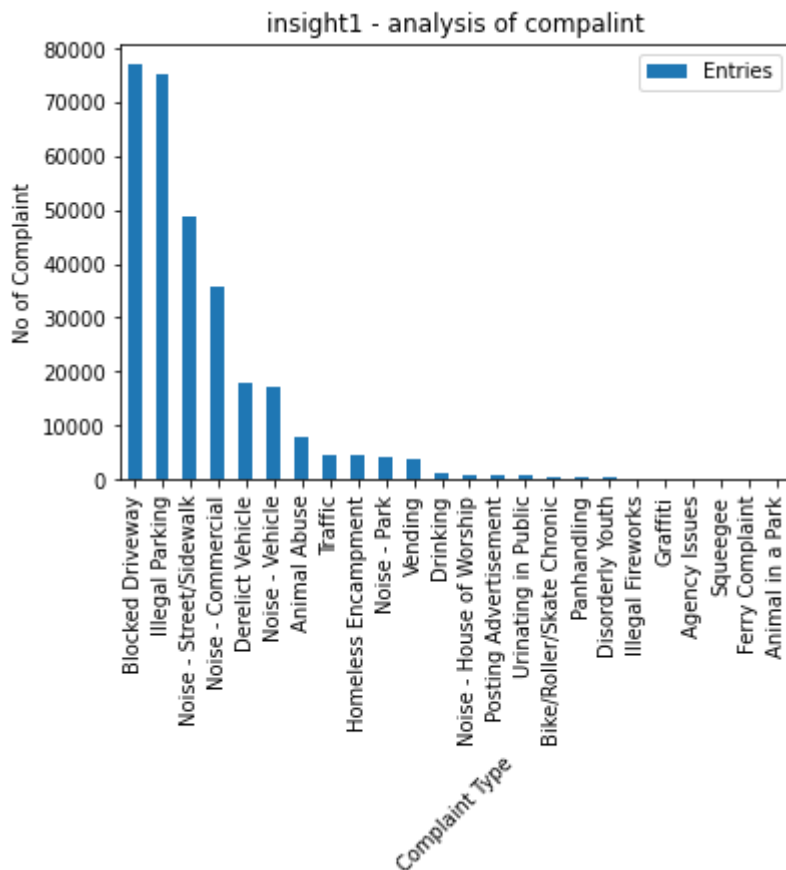
(71,)

In [65]:

```
insight1.plot(kind='bar')
plt.xlabel('Complaint Type', rotation=45)
plt.ylabel('No of Complaint', rotation=90)
plt.title('insight1 - analysis of compalint')
plt.show
```

Out[65]:

```
<function matplotlib.pyplot.show(close=None, block=None)>
```

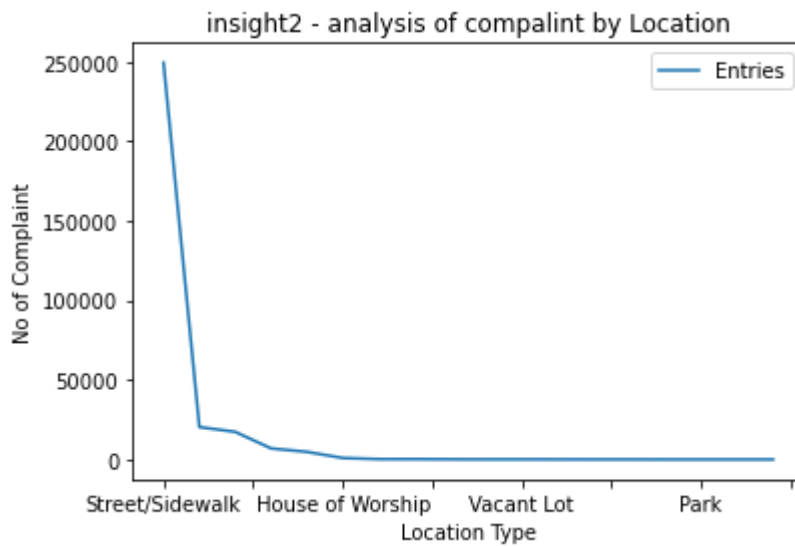


In [59]:

```
insight2.plot(kind='line')
plt.xlabel('Location Type')
plt.ylabel('No of Complaint')
plt.title('insight2 - analysis of compalint by Location')
plt.show
```

Out[59]:

<function matplotlib.pyplot.show(close=None, block=None)>

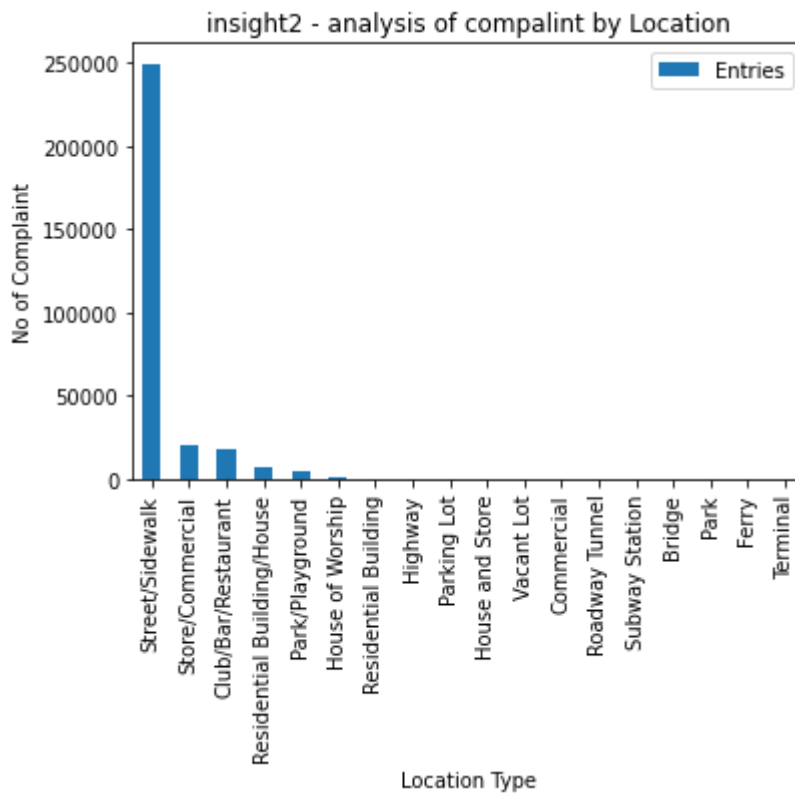


In [60]:

```
insight2.plot(kind='bar')
plt.xlabel('Location Type')
plt.ylabel('No of Complaint')
plt.title('insight2 - analysis of compalint by Location')
plt.show
```

Out[60]:

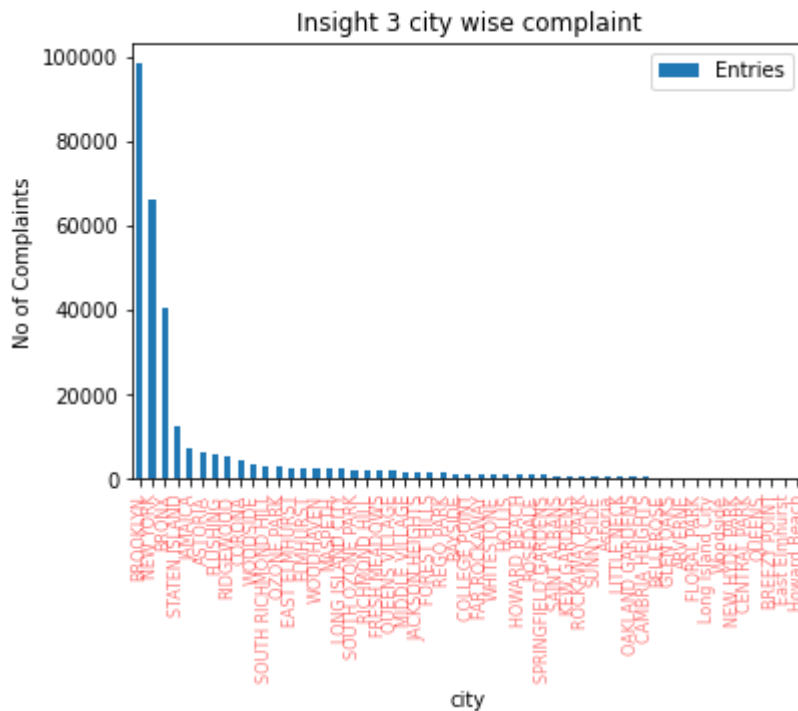
<function matplotlib.pyplot.show(close=None, block=None)>



In [80]:

```
fig = plt.figure(figsize = (100,50), dpi = 1080)
insight3.plot(kind='bar')
plt.xlabel('city')
plt.ylabel('No of Complaints')
plt.xticks(rotation = 90, color = 'red', size = 8, alpha = 0.5)
plt.title('Insight 3 city wise complaint')
plt.show()
```

<Figure size 108000x54000 with 0 Axes>



In []: