

Project 03: NYC 311 Service Request Analysis

You don't need to limit yourself to the number of rows/cells provided. You can add additional rows in each section to add more lines of code.

Happy coding!

In [21]: import pandas as pd import numpy as np #Import a 311 NYC service request nyc=pd.read_csv("C:\\Users\\LIFE\\Downloads\\311_Service_Requests_from_2010_to _Present.csv",low_memory=False) #Basic data exploratory analysis #Explore data nyc.head()

Out[21]:

Closed Date	Agency	Agency Name	Complaint Type	Descriptor	Location Type
01-01- 16 0:55	NYPD	New York City Police Department	Noise - Street/Sidewalk	Loud Music/Party	Street/Sidewalk
01-01- 16 1:26	NYPD	New York City Police Department	Blocked Driveway	No Access	Street/Sidewalk
01-01- 16 4:51	NYPD	New York City Police Department	Blocked Driveway	No Access	Street/Sidewalk
01-01- 16 7:43	NYPD	New York City Police Department	Illegal Parking	Commercial Overnight Parking	Street/Sidewalk
01-01- 16 3:24	NYPD	New York City Police Department	Illegal Parking	Blocked Sidewalk	Street/Sidewalk
	01-01- 16 0:55 01-01- 16 1:26 01-01- 16 4:51 01-01- 16 7:43	Date Agency 01-01- 16 0:55 NYPD 01-01- 16 1:26 NYPD 01-01- 16 4:51 NYPD 01-01- 16 7:43 NYPD	DateAgencyName01-01-16 0:55NYPDNew York City Police Department01-01-16 1:26NYPDNew York City Police Department01-01-16 4:51NYPDNew York City Police Department01-01-16 7:43NYPDNew York City Police Department01-01-16 7:43NYPDNew York City Police Department01-01-16 3:24NYPDNew York City Police Department	DateAgencyNameType01-01- 16 0:55NYPDNew York City Police DepartmentNoise - Street/Sidewalk01-01- 16 1:26NYPDNew York City Police DepartmentBlocked Driveway01-01- 16 4:51NYPDNew York City Police DepartmentBlocked Driveway01-01- 16 7:43NYPDNew York City Police DepartmentBlocked Driveway01-01- 16 3:24NYPDNew York City Police DepartmentIllegal Parking01-01- 16 3:24NYPDNew York City PoliceIllegal Parking	DateAgencyNameTypeDescriptor01-01- 16 0:55NYPDNew York City Police DepartmentNoise - Street/SidewalkLoud Music/Party01-01- 16 1:26NYPDNew York City Police DepartmentBlocked DrivewayNo Access01-01- 16 4:51NYPDNew York City Police DepartmentBlocked DrivewayNo Access01-01- 16 7:43NYPDNew York City Police DepartmentBlocked DrivewayNo Access01-01- 16 7:43NYPDNew York City Police DepartmentIllegal ParkingCommercial Overnight Parking01-01- 16 3:24NYPDNew York City PoliceIllegal ParkingBlocked Sidewalk

5 rows × 53 columns

In [19]: #Find Pattern nyc

Out[19]:

	Unique Key	Created Date	Closed Date	Agency	Agency Name	Complaint Type	Descriptor	
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	
1	32309934	12/31/2015 11:59:44 PM	01-01-16 1:26	NYPD	New York City Police Department	Blocked Driveway	No Access	
2	32309159	12/31/2015 11:59:29 PM	01-01-16 4:51	NYPD	New York City Police Department	Blocked Driveway	No Access	
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	
4	32306529	12/31/2015 11:56:58 PM	01-01-16 3:24	NYPD	New York City Police Department	Illegal Parking	Blocked Sidewalk	
5	32306554	12/31/2015 11:56:30 PM	01-01-16 1:50	NYPD	New York City Police Department	Illegal Parking	Posted Parking Sign Violation	
6	32306559	12/31/2015 11:55:32 PM	01-01-16 1:53	NYPD	New York City Police Department	Illegal Parking	Blocked Hydrant	
7	32307009	12/31/2015 11:54:05 PM	01-01-16 1:42	NYPD	New York City Police Department	Blocked Driveway	No Access	
8	32308581	12/31/2015 11:53:58 PM	01-01-16 8:27	NYPD	New York City Police Department	Illegal Parking	Posted Parking Sign Violation	
9	32308391	12/31/2015 11:53:58 PM	01-01-16 1:17	NYPD	New York City Police Department	Blocked Driveway	No Access	
10	32305071	12/31/2015 11:52:58 PM	01-01-16 7:41	NYPD	New York City Police Department	Blocked Driveway	No Access	
11	32306260	12/31/2015 11:50:57 PM	01-01-16 10:58	NYPD	New York City Police Department	Blocked Driveway	No Access	
12	32306612	12/31/2015 11:48:03 PM	01-01-16 2:17	NYPD	New York City Police Department	Noise - Street/Sidewalk	Loud Music/Party	
13	32305074	12/31/2015 11:47:58 PM	01-01-16 8:18	NYPD	New York City Police Department	Illegal Parking	Posted Parking Sign Violation	
14	32309424	12/31/2015 11:47:37 PM	01-01-16 10:17	NYPD	New York City Police Department	Derelict Vehicle	With License Plate	
15	32309853	12/31/2015 11:47:30 PM	01-01-16 15:20	NYPD	New York City Police Department	Blocked Driveway	Partial Access	

	Unique Key	Created Date	Closed Date	Agency	Agency Name	Complaint Type	Descriptor	
16	32305538	12/31/2015 11:47:02 PM	01-01-16 4:39	NYPD	New York City Police Department	Blocked Driveway	No Access	
17	32310273	12/31/2015 11:44:52 PM	01-01-16 0:36	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	Clut
18	32306617	12/31/2015 11:40:59 PM	01-01-16 2:37	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	Clut
19	32308195	12/31/2015 11:40:55 PM	01-01-16 0:28	NYPD	New York City Police Department	Noise - Street/Sidewalk	Loud Music/Party	
20	32310127	12/31/2015 11:40:43 PM	01-01-16 4:12	NYPD	New York City Police Department	Illegal Parking	Unauthorized Bus Layover	
21	32307994	12/31/2015 11:38:51 PM	01-01-16 9:11	NYPD	New York City Police Department	Illegal Parking	Posted Parking Sign Violation	
22	32307233	12/31/2015 11:34:18 PM	01-01-16 0:50	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	SI
23	32308765	12/31/2015 11:32:46 PM	01-01-16 0:25	NYPD	New York City Police Department	Illegal Parking	Double Parked Blocking Vehicle	
24	32308423	12/31/2015 11:31:40 PM	01-03-16 16:22	NYPD	New York City Police Department	Blocked Driveway	No Access	
25	32308426	12/31/2015 11:30:28 PM	01-01-16 2:47	NYPD	New York City Police Department	Blocked Driveway	No Access	
26	32305916	12/31/2015 11:26:41 PM	12/31/2015 11:53:31 PM	NYPD	New York City Police Department	Noise - House of Worship	Loud Music/Party	Н
27	32308379	12/31/2015 11:26:35 PM	01-01-16 5:07	NYPD	New York City Police Department	Blocked Driveway	No Access	
28	32309402	12/31/2015 11:25:56 PM	01-01-16 1:12	NYPD	New York City Police Department	Illegal Parking	Posted Parking Sign Violation	
29	32308850	12/31/2015 11:25:01 PM	01-01-16 1:55	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	Clut
300668	30282107	03/29/2015 01:03:20 AM	03/29/2015 03:40:19 AM	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	Clut
300669	30283741	03/29/2015 01:02:05 AM	03/29/2015 05:26:38 AM	NYPD	New York City Police Department	Noise - Street/Sidewalk	Loud Music/Party	

	Unique Key	Created Date	Closed Date	Agency	Agency Name	Complaint Type	Descriptor	
300670	30284125	03/29/2015 01:01:25 AM	03/29/2015 09:26:52 AM	NYPD	New York City Police Department	Illegal Parking	Blocked Hydrant	
300671	30283901	03/29/2015 12:58:08 AM	03/29/2015 04:44:02 AM	NYPD	New York City Police Department	Illegal Parking	Blocked Hydrant	
300672	30282374	03/29/2015 12:57:27 AM	03/29/2015 04:39:53 PM	NYPD	New York City Police Department	Blocked Driveway	No Access	
300673	30280817	03/29/2015 12:57:25 AM	03/29/2015 02:25:31 AM	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	Clut
300674	30283364	03/29/2015 12:57:19 AM	03/29/2015 03:17:59 AM	NYPD	New York City Police Department	Noise - Street/Sidewalk	Loud Music/Party	
300675	30280353	03/29/2015 12:56:22 AM	03/29/2015 01:57:52 AM	NYPD	New York City Police Department	Noise - Street/Sidewalk	Loud Music/Party	
300676	30280974	03/29/2015 12:55:56 AM	03/29/2015 08:08:27 AM	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	S1
300677	30280622	03/29/2015 12:55:33 AM	03/29/2015 07:12:39 AM	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	Clut
300678	30282979	03/29/2015 12:50:12 AM	03/29/2015 07:06:29 AM	NYPD	New York City Police Department	Noise - Vehicle	Car/Truck Music	
300679	30281254	03/29/2015 12:49:51 AM	03/29/2015 02:02:21 AM	NYPD	New York City Police Department	Blocked Driveway	No Access	
300680	30281090	03/29/2015 12:49:27 AM	03/29/2015 04:25:53 AM	NYPD	New York City Police Department	Noise - Vehicle	Car/Truck Music	
300681	30283933	03/29/2015 12:48:23 AM	03/29/2015 03:42:33 AM	NYPD	New York City Police Department	Noise - Street/Sidewalk	Loud Music/Party	
300682	30283186	03/29/2015 12:46:26 AM	03/29/2015 07:12:20 AM	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	Clut
300683	30284534	03/29/2015 12:44:36 AM	03/29/2015 03:40:20 AM	NYPD	New York City Police Department	Noise - Street/Sidewalk	Loud Talking	
300684	30281081	03/29/2015 12:43:20 AM	03/29/2015 01:10:55 AM	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	SI
300685	30280506	03/29/2015 12:43:16 AM	03/29/2015 04:25:50 AM	NYPD	New York City Police Department	Noise - Vehicle	Car/Truck Music	
300686	30281145	03/29/2015 12:43:06 AM	03/29/2015 12:57:23 AM	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	St

	Unique Key	Created Date	Closed Date	Agency	Agency Name	Complaint Type	Descriptor	
300687	30282599	03/29/2015 12:42:48 AM	03/29/2015 02:57:41 AM	NYPD	New York City Police Department	Blocked Driveway	No Access	
300688	30280732	03/29/2015 12:37:15 AM	03/29/2015 01:02:39 AM	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	Clut
300689	30283432	03/29/2015 12:35:28 AM	03/29/2015 04:14:27 AM	NYPD	New York City Police Department	Noise - Street/Sidewalk	Loud Music/Party	
300690	30280538	03/29/2015 12:35:23 AM	03/29/2015 08:41:24 AM	NYPD	New York City Police Department	Illegal Parking	Commercial Overnight Parking	
300691	30279999	03/29/2015 12:35:04 AM	03/29/2015 02:52:28 AM	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	S1
300692	30281370	03/29/2015 12:34:32 AM	03/29/2015 01:13:01 AM	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	St
300693	30281872	03/29/2015 12:33:41 AM	NaN	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	Club
300694	30281230	03/29/2015 12:33:28 AM	03/29/2015 02:33:59 AM	NYPD	New York City Police Department	Blocked Driveway	Partial Access	
300695	30283424	03/29/2015 12:33:03 AM	03/29/2015 03:40:20 AM	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	Club
300696	30280004	03/29/2015 12:33:02 AM	03/29/2015 04:38:35 AM	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	Clut
300697	30281825	03/29/2015 12:33:01 AM	03/29/2015 04:41:50 AM	NYPD	New York City Police Department	Noise - Commercial	Loud Music/Party	S1
300698	rows × 53 o	columns						

In [22]: nyc.info()

<class 'pandas.core.frame.DataFrame'> RangeIndex: 300698 entries, 0 to 300697 Data columns (total 53 columns): Unique Key 300698 non-null int64 Created Date 300698 non-null object Closed Date 298534 non-null object 300698 non-null object Agency Agency Name 300698 non-null object Complaint Type 300698 non-null object Descriptor 294784 non-null object Location Type 300567 non-null object 298083 non-null float64 Incident Zip Incident Address 256288 non-null object Street Name 256288 non-null object Cross Street 1 251419 non-null object Cross Street 2 250919 non-null object 43858 non-null object Intersection Street 1 Intersection Street 2 43362 non-null object Address Type 297883 non-null object 298084 non-null object City Landmark 349 non-null object 298527 non-null object Facility Type 300698 non-null object Status 300695 non-null object Due Date 300698 non-null object Resolution Description Resolution Action Updated Date 298511 non-null object 300698 non-null object Community Board 300698 non-null object Borough X Coordinate (State Plane) 297158 non-null float64 Y Coordinate (State Plane) 297158 non-null float64 300698 non-null object Park Facility Name Park Borough 300698 non-null object 300698 non-null object School Name 300698 non-null object School Number 300697 non-null object School Region School Code 300697 non-null object School Phone Number 300698 non-null object School Address 300698 non-null object 300698 non-null object School City School State 300698 non-null object 300697 non-null object School Zip School Not Found 300698 non-null object School or Citywide Complaint 0 non-null float64 Vehicle Type 0 non-null float64 Taxi Company Borough 0 non-null float64 Taxi Pick Up Location 0 non-null float64 Bridge Highway Name 243 non-null object Bridge Highway Direction 243 non-null object Road Ramp 213 non-null object Bridge Highway Segment 213 non-null object Garage Lot Name 0 non-null float64 Ferry Direction 1 non-null object Ferry Terminal Name 2 non-null object Latitude 297158 non-null float64 297158 non-null float64 Longitude Location 297158 non-null object

dtypes: float64(10), int64(1), object(42)

memory usage: 121.6+ MB

In [4]: #droping all null columns to make it easy !
 nyc1=nyc.drop(["Garage Lot Name","Taxi Pick Up Location","Taxi Company Boroug
 h","Vehicle Type","School or Citywide Complaint"],axis=1)
 nyc1.head()

Out[4]:

	Unique Key	Created Date	Closed Date	Agency	Agency Name	Complaint Type	Descriptor	Location Type
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/Sidewalk
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/Sidewalk
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/Sidewalk
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/Sidewalk
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/Sidewalk

5 rows × 48 columns

In [5]: nyc1.describe()

Out[5]:

	Unique Key	Incident Zip	X Coordinate (State Plane)	Y Coordinate (State Plane)	Latitude	Longitude
count	3.006980e+05	298083.000000	2.971580e+05	297158.000000	297158.000000	297158.000000
mean	3.130054e+07	10848.888645	1.004854e+06	203754.534416	40.725885	-73.925630
sto	5.738547e+05	583.182081	2.175338e+04	29880.183529	0.082012	0.078454
min	3.027948e+07	83.000000	9.133570e+05	121219.000000	40.499135	-74.254937
25%	3.080118e+07	10310.000000	9.919752e+05	183343.000000	40.669796	-73.972142
50%	3.130436e+07	11208.000000	1.003158e+06	201110.500000	40.718661	-73.931781
75%	3.178446e+07	11238.000000	1.018372e+06	224125.250000	40.781840	-73.876805
max	3.231065e+07	11697.000000	1.067173e+06	271876.000000	40.912869	-73.700760
4						•

In [6]: nyc1.index.values

Out[6]: array([0, 1, 2, ..., 300695, 300696, 300697], dtype=int64)

In [8]: nyc1.info

				.,.				
Out[8]:		method DataF		f	Uniq	que Key	Create	d Date
		Date Agency						
	0	32310363	12/31/2015			01-01-16		NYPD
	1	32309934				01-01-16		NYPD
	2	32309159	12/31/2015			01-01-16		NYPD
	3	32305098	12/31/2015			01-01-16		NYPD
	4	32306529	12/31/2015			01-01-16		NYPD
	5	32306554	12/31/2015			01-01-16		NYPD
	6	32306559	12/31/2015			01-01-16		NYPD
	7	32307009	12/31/2015			01-01-16		NYPD
	8	32308581	12/31/2015			01-01-16		NYPD
	9	32308391	12/31/2015			01-01-16		NYPD
	10	32305071	12/31/2015			01-01-16		NYPD
	11	32306260	12/31/2015			01-01-16		NYPD
	12	32306612	12/31/2015			01-01-16		NYPD
	13	32305074	12/31/2015			01-01-16		NYPD
	14	32309424	12/31/2015			01-01-16		NYPD
	15	32309853	12/31/2015			01-01-16		NYPD
	16	32305538	12/31/2015			01-01-16		NYPD
	17	32310273	12/31/2015			01-01-16		NYPD
	18	32306617	12/31/2015			01-01-16		NYPD
	19	32308195	12/31/2015			01-01-16		NYPD
	20	32310127	12/31/2015			01-01-16		NYPD
	21	32307994	12/31/2015			01-01-16		NYPD
	22	32307233	12/31/2015			01-01-16		NYPD
	23	32308765	12/31/2015			01-01-16		NYPD
	24	32308423	12/31/2015			01-03-16		NYPD
	25	32308426	12/31/2015			01-01-16		NYPD
	26	32305916	12/31/2015			12/31/2015 11:53:		NYPD
	27	32308379	12/31/2015			01-01-16		NYPD
	28	32309402	12/31/2015			01-01-16		NYPD
	29	32308850	12/31/2015	11:25:01	PM	01-01-16	1:55	NYPD
	• • •	•••			• • •		• • •	• • •
	300668	30282107				03/29/2015 03:40:		NYPD
	300669	30283741				03/29/2015 05:26:		NYPD
	300670	30284125	03/29/2015			03/29/2015 09:26:		NYPD
	300671	30283901	03/29/2015			03/29/2015 04:44:		NYPD
	300672	30282374	03/29/2015			03/29/2015 04:39:		NYPD
	300673	30280817	03/29/2015			03/29/2015 02:25:		NYPD
	300674	30283364	03/29/2015			03/29/2015 03:17:		NYPD
	300675	30280353	03/29/2015			03/29/2015 01:57:		NYPD
	300676	30280974	03/29/2015			03/29/2015 08:08:		NYPD
	300677	30280622	03/29/2015			03/29/2015 07:12:		NYPD
	300678	30282979	03/29/2015			03/29/2015 07:06:		NYPD
	300679	30281254	03/29/2015			03/29/2015 02:02:		NYPD
	300680	30281090	03/29/2015			03/29/2015 04:25:		NYPD
	300681	30283933	03/29/2015			03/29/2015 03:42:		NYPD
	300682	30283186	03/29/2015			03/29/2015 07:12:		NYPD
	300683	30284534	03/29/2015			03/29/2015 03:40:		NYPD
	300684	30281081	03/29/2015			03/29/2015 01:10:		NYPD
	300685	30280506	03/29/2015			03/29/2015 04:25:		NYPD
	300686	30281145	03/29/2015			03/29/2015 12:57:		NYPD
	300687	30282599	03/29/2015			03/29/2015 02:57:		NYPD
	300688	30280732	03/29/2015			03/29/2015 01:02:		NYPD
	300689	30283432	03/29/2015			03/29/2015 04:14:		NYPD
	300690	30280538	03/29/2015			03/29/2015 08:41:		NYPD
	300691	30279999	03/29/2015	12:35:04	Αľ	03/29/2015 02:52:	∠ŏ Al ^v l	NYPD

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03/29/2015 01:13:01 AM
300692
          30281370
                    03/29/2015 12:34:32 AM
300693
          30281872
                    03/29/2015 12:33:41 AM
                                                                 NaN
300694
          30281230
                    03/29/2015 12:33:28 AM
                                             03/29/2015 02:33:59 AM
300695
          30283424
                    03/29/2015 12:33:03 AM
                                             03/29/2015 03:40:20 AM
300696
          30280004
                    03/29/2015 12:33:02 AM
                                             03/29/2015 04:38:35 AM
                    03/29/2015 12:33:01 AM
                                             03/29/2015 04:41:50 AM
300697
          30281825
                             Agency Name
                                                     Complaint Type
0
        New York City Police Department
                                           Noise - Street/Sidewalk
1
        New York City Police Department
                                                  Blocked Driveway
2
        New York City Police Department
                                                  Blocked Driveway
3
        New York City Police Department
                                                   Illegal Parking
4
        New York City Police Department
                                                   Illegal Parking
5
        New York City Police Department
                                                   Illegal Parking
6
        New York City Police Department
                                                   Illegal Parking
7
        New York City Police Department
                                                  Blocked Driveway
8
        New York City Police Department
                                                   Illegal Parking
9
        New York City Police Department
                                                  Blocked Driveway
10
        New York City Police Department
                                                  Blocked Driveway
        New York City Police Department
11
                                                  Blocked Driveway
12
        New York City Police Department
                                           Noise - Street/Sidewalk
13
        New York City Police Department
                                                   Illegal Parking
14
                                                  Derelict Vehicle
        New York City Police Department
15
        New York City Police Department
                                                  Blocked Driveway
16
        New York City Police Department
                                                  Blocked Driveway
17
        New York City Police Department
                                                Noise - Commercial
18
        New York City Police Department
                                                Noise - Commercial
19
        New York City Police Department
                                           Noise - Street/Sidewalk
20
        New York City Police Department
                                                   Illegal Parking
21
        New York City Police Department
                                                   Illegal Parking
22
        New York City Police Department
                                                Noise - Commercial
23
        New York City Police Department
                                                   Illegal Parking
24
        New York City Police Department
                                                  Blocked Driveway
25
        New York City Police Department
                                                  Blocked Driveway
26
        New York City Police Department
                                          Noise - House of Worship
27
        New York City Police Department
                                                  Blocked Driveway
28
        New York City Police Department
                                                   Illegal Parking
29
        New York City Police Department
                                                Noise - Commercial
300668
        New York City Police Department
                                                Noise - Commercial
300669
        New York City Police Department
                                           Noise - Street/Sidewalk
300670
        New York City Police Department
                                                   Illegal Parking
300671
        New York City Police Department
                                                   Illegal Parking
300672
        New York City Police Department
                                                  Blocked Driveway
300673
        New York City Police Department
                                                Noise - Commercial
300674
        New York City Police Department
                                           Noise - Street/Sidewalk
300675
        New York City Police Department
                                           Noise - Street/Sidewalk
300676
        New York City Police Department
                                                Noise - Commercial
        New York City Police Department
300677
                                                Noise - Commercial
300678
        New York City Police Department
                                                   Noise - Vehicle
300679
        New York City Police Department
                                                  Blocked Driveway
300680
        New York City Police Department
                                                   Noise - Vehicle
300681
        New York City Police Department
                                           Noise - Street/Sidewalk
300682
        New York City Police Department
                                                Noise - Commercial
        New York City Police Department
                                           Noise - Street/Sidewalk
300683
300684
        New York City Police Department
                                                Noise - Commercial
300685
        New York City Police Department
                                                   Noise - Vehicle
```

NYPD

NYPD

NYPD

NYPD

NYPD

NYPD

	i ioje	ot 5
300686	New York City Police Department	Noise - Commercial
300687	New York City Police Department	Blocked Driveway
300688	New York City Police Department	Noise - Commercial
300689	New York City Police Department	Noise - Street/Sidewalk
300690	New York City Police Department	Illegal Parking
300691	New York City Police Department	Noise - Commercial
300692	New York City Police Department	Noise - Commercial
300693	New York City Police Department	Noise - Commercial
300694	New York City Police Department	Blocked Driveway
300695	New York City Police Department	Noise - Commercial
300696	New York City Police Department	Noise - Commercial
300697	New York City Police Department	Noise - Commercial
	Descriptor	Location Type Incident Zip
0	Loud Music/Party	Street/Sidewalk 10034.0
1	No Access	Street/Sidewalk 11105.0
2	No Access	Street/Sidewalk 10458.0
3	Commercial Overnight Parking	Street/Sidewalk 10461.0
4	Blocked Sidewalk	Street/Sidewalk 11373.0
5	Posted Parking Sign Violation	Street/Sidewalk 11215.0
6	Blocked Hydrant	Street/Sidewalk 10032.0
7	No Access	Street/Sidewalk 10457.0
8	Posted Parking Sign Violation	Street/Sidewalk 11415.0
9	No Access	Street/Sidewalk 11219.0
10	No Access	Street/Sidewalk 11372.0
11	No Access	Street/Sidewalk 10453.0
12	Loud Music/Party	Street/Sidewalk 10461.0
13	Posted Parking Sign Violation	Street/Sidewalk 11208.0
14	With License Plate	Street/Sidewalk 11379.0
15	Partial Access	Street/Sidewalk 11374.0
16	No Access	Street/Sidewalk 11412.0
17	Loud Music/Party	Club/Bar/Restaurant 11217.0
18	Loud Music/Party	Club/Bar/Restaurant 11234.0
19	Loud Music/Party	Street/Sidewalk 10026.0
20	Unauthorized Bus Layover	Street/Sidewalk 10456.0
21	Posted Parking Sign Violation	Street/Sidewalk 11379.0
22	Loud Music/Party	Store/Commercial 11234.0
23	Double Parked Blocking Vehicle	Street/Sidewalk 10030.0
24	No Access	Street/Sidewalk 10467.0
25	No Access	Street/Sidewalk 11432.0
26	Loud Music/Party	House of Worship 10031.0
27	No Access	Street/Sidewalk 11419.0
28	Posted Parking Sign Violation	Street/Sidewalk 10024.0
29	Loud Music/Party	Club/Bar/Restaurant 11201.0
• • •	•••	•••
300668	Loud Music/Party	Club/Bar/Restaurant 11216.0
300669	Loud Music/Party	Street/Sidewalk 10031.0
300670	Blocked Hydrant	Street/Sidewalk 11354.0
300671	Blocked Hydrant	Street/Sidewalk 10019.0
300672	No Access	Street/Sidewalk 11208.0
300673	Loud Music/Party	Club/Bar/Restaurant 11203.0
300674	Loud Music/Party	Street/Sidewalk 10025.0
300675	Loud Music/Party	Street/Sidewalk 10031.0
300676	Loud Music/Party	Store/Commercial 11377.0
300677	Loud Music/Party	Club/Bar/Restaurant 11237.0
300678	Car/Truck Music	Street/Sidewalk 11206.0
300679	No Access	Street/Sidewalk 11385.0

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	'	ı ıojc	201.0	
300680	Car/Truck Mus:	ic	Street/Sidewalk	10028.0
300681	Loud Music/Part	ty	Street/Sidewalk	11238.0
300682	Loud Music/Part	ty	Club/Bar/Restaurant	11249.0
300683	Loud Talki	ng	Street/Sidewalk	11238.0
300684	Loud Music/Par	ty	Store/Commercial	10002.0
300685	Car/Truck Mus:	ic	Street/Sidewalk	10028.0
300686	Loud Music/Par	ty	Store/Commercial	10014.0
300687	No Acces	SS	Street/Sidewalk	11385.0
300688	Loud Music/Part	ty	Club/Bar/Restaurant	10014.0
300689	Loud Music/Part	ty	Street/Sidewalk	11233.0
300690	Commercial Overnight Parki	-	Street/Sidewalk	10466.0
300691	Loud Music/Par	_	Store/Commercial	10034.0
300692	Loud Music/Part	-	Store/Commercial	10002.0
300693	Loud Music/Part	-	Club/Bar/Restaurant	NaN
300694	Partial Acces	-	Street/Sidewalk	11418.0
300695	Loud Music/Part	tv		11206.0
300696	Loud Music/Par	-		10461.0
300697	Loud Music/Par	-	Store/Commercial	10036.0
		-,		
	Incident Address		School Not Found Bridge	Highway Name
\	includite madi ess .	••	Jeneol Nee Tound D. luge	niag name
ò	71 VERMILYEA AVENUE .		N	NaN
1	07 07 00 01/51/15		N	NaN
2	2007 1/41 5117715 41/51115	• •	N	NaN
3		• •	N	NaN
4		• •	N	NaN
5		• •	N	NaN
6		• •	N	NaN
7		• •	N	NaN
8		• •	N	NaN
9		• •	N	NaN
10	24 06 72 670557	• •	N	NaN
11		• •	N	NaN
12		• •	N	NaN
13	38 COX PLACE .	• •	N	NaN
14	62-13 62 AVENUE .	• •	N	NaN
15	61-34 AUSTIN STREET .	• •	N	NaN
16	192-05 LINDEN BOULEVARD .	• •	N	NaN
17	622 DEGRAW STREET .	• •	N	NaN
18	2192 FLATBUSH AVENUE .	• •	N	NaN
19	264 WEST 118 STREET .	• •	N	NaN
20	1417 WEBSTER AVENUE .	• •	N	NaN
21	78-42 METROPOLITAN AVENUE .	• •	N	NaN
22	3622 QUENTIN ROAD .	• •	N	NaN
23	133 WEST 134 STREET .	• •	N	NaN
24	3025 WALLACE AVENUE .	• •	N	NaN
25	175-18 90 AVENUE .	• •	N	NaN
26	452 WEST 147 STREET .	• •	N	NaN
27	103-28 118 STREET .	• •	N	NaN
28	131 WEST 86 STREET .	• •	N	NaN
		• •		
29	216 DUFFIELD STREET .	• •	N	NaN
200669		• •	• • • Ni	· · ·
300668	305 HALSEY STREET .	• •	N	NaN
300669	NaN .	• •	N	NaN
300670	33-16 143 STREET .	• •	N	NaN
300671	446 WEST 49 STREET .	• •	N	NaN
300672	326 MCKINLEY AVENUE .	• •	N	NaN

196 EAST 51 STREET NaN 300673 N 300674 220 WEST 107 STREET N NaN 300675 501 WEST 139 STREET N NaN **50 STREET** NaN 300676 N 302 IRVING AVENUE NaN 300677 N 29 LOCUST STREET NaN 300678 Ν 1912 GROVE STREET 300679 N NaN 300680 420 EAST 86 STREET N NaN 300681 799 DEAN STREET N NaN 300682 98A SOUTH 4 STREET N NaN **801 DEAN STREET** NaN 300683 N 300684 9 STANTON STREET Ν NaN 415 EAST 86 STREET 300685 N NaN 300686 185 CHRISTOPHER STREET N NaN 300687 77-03 79 PLACE N NaN 300688 22 9 AVENUE Ν NaN 300689 120 CHAUNCEY STREET N NaN 300690 NaN Ν NaN 97 SHERMAN AVENUE 300691 Ν NaN 300692 **81 HESTER STREET** N NaN 300693 CRESCENT AVENUE N NaN 300694 100-17 87 AVENUE Ν NaN 300695 162 THROOP AVENUE N NaN 300696 3151 EAST TREMONT AVENUE Ν NaN 300697 251 WEST 48 STREET Ν NaN

Bridge Highway Direction Road Ramp Bridge Highway Segment \

	DI TUBC	11±g11Wdy	DITCCCION	Roda Ramp	DI TUBC	11±g11way	Jegmene	
0			NaN	NaN			NaN	
1			NaN	NaN			NaN	
2			NaN	NaN			NaN	
3			NaN	NaN			NaN	
4			NaN	NaN			NaN	
5			NaN	NaN			NaN	
6			NaN	NaN			NaN	
7			NaN	NaN			NaN	
8			NaN	NaN			NaN	
9			NaN	NaN			NaN	
10			NaN	NaN			NaN	
11			NaN	NaN			NaN	
12			NaN	NaN			NaN	
13			NaN	NaN			NaN	
14			NaN	NaN			NaN	
15			NaN	NaN			NaN	
16			NaN	NaN			NaN	
17			NaN	NaN			NaN	
18			NaN	NaN			NaN	
19			NaN	NaN			NaN	
20			NaN	NaN			NaN	
21			NaN	NaN			NaN	
22			NaN	NaN			NaN	
23			NaN	NaN			NaN	
24			NaN	NaN			NaN	
25			NaN	NaN			NaN	
26			NaN	NaN			NaN	
27			NaN	NaN			NaN	
28			NaN	NaN			NaN	
29			NaN	NaN			NaN	

			oject o		
		NoN	···	· · ·	
300668		NaN	NaN	NaN	
300669		NaN	NaN	NaN	
300670		NaN	NaN	NaN	
300671		NaN	NaN	NaN	
300672		NaN	NaN	NaN	
300673		NaN	NaN	NaN	
300674		NaN	NaN	NaN	
300675		NaN	NaN	NaN	
300676		NaN	NaN	NaN	
300677		NaN	NaN	NaN	
300678		NaN	NaN	NaN	
300679		NaN	NaN	NaN	
300680		NaN	NaN	NaN	
300681		NaN	NaN	NaN	
300682		NaN	NaN	NaN	
300683		NaN	NaN	NaN	
300684		NaN	NaN	NaN	
300685		NaN	NaN	NaN	
300686		NaN	NaN	NaN	
300687		NaN	NaN	NaN	
300688		NaN	NaN	NaN	
300689		NaN	NaN	NaN	
300690		NaN	NaN	NaN	
300691		NaN	NaN	NaN	
300692		NaN	NaN	NaN	
300693		NaN	NaN	NaN	
300694		NaN	NaN	NaN	
300695 300696		NaN NaN	NaN NaN	NaN NaN	
300697		NaN	NaN	NaN	
300037		IVAIN	IVAIV	INAIN	
	Ferry Direction	Ferry Terminal	Name	Latitude Longitude	\
0	NaN	,	NaN	40.865682 -73.923501	
1	NaN		NaN		
2	NaN		NaN	40.870325 -73.888525	
3	NaN		NaN	40.835994 -73.828379	
4	NaN		NaN	40.733060 -73.874170	
5	NaN		NaN	40.660823 -73.992568	
6	NaN		NaN	40.840848 -73.937375	
7	NaN		NaN	40.837503 -73.902905	
8	NaN		NaN	40.704977 -73.832605	
9	NaN		NaN	40.623793 -73.999539	
10	NaN		NaN	40.752600 -73.893363	
11	NaN		NaN	40.851555 -73.919997	
12	NaN		NaN	40.845545 -73.833585	
13	NaN		NaN	40.687511 -73.874505	
14	NaN		NaN	40.714093 -73.899384	
15	NaN		NaN	40.729679 -73.870417	
16	NaN		NaN	40.692520 -73.759264	
17	NaN		NaN	40.679154 -73.983430	
18	NaN		NaN	40.616550 -73.930202	
19	NaN		NaN	40.805267 -73.953353	
20	NaN		NaN	40.836727 -73.907106	
21	NaN		NaN	40.713198 -73.874139	
22	NaN		NaN	40.614784 -73.936568	
23	NaN		NaN	40.814002 -73.942664	

		Project 3		
24	NaN	NaN	40.870063	-73.864322
25	NaN	NaN	40.709827	-73.786257
26	NaN	NaN	40.826102	-73.945663
27	NaN	NaN	40.687117	-73.825597
28	NaN	NaN		-73.973202
29	NaN	NaN	40.691599	-73.984379
 300668	··· NaN	··· NaN	10 682906	-73.940357
300669	NaN	NaN		-73.950379
300670	NaN	NaN		-73.826216
300671	NaN	NaN		-73.990766
300672	NaN	NaN		-73.863917
300673	NaN	NaN		-73.929979
300674	NaN	NaN		-73.965947
300675	NaN	NaN		-73.950631
300676	NaN	NaN		-73.914894
300677	NaN	NaN	40.698976	-73.914319
300678	NaN	NaN	40.699334	-73.937486
300679	NaN	NaN	40.706475	-73.907504
300680	NaN	NaN	40.776591	-73.948719
300681	NaN	NaN	40.679237	-73.963355
300682	NaN	NaN	40.712285	-73.964001
300683	NaN	NaN	40.679226	-73.963309
300684	NaN	NaN	40.722621	-73.992435
300685	NaN	NaN	40.776646	-73.948805
300686	NaN	NaN	40.732486	-74.009688
300687	NaN	NaN	40.706353	-73.871245
300688	NaN	NaN		-74.005781
300689	NaN	NaN		-73.929417
300690	NaN	NaN		-73.840809
300691	NaN	NaN		-73.925358
300692	NaN	NaN		-73.991378
300693	NaN	NaN	NaN	NaN
300694	NaN	NaN		-73.846087
300695	NaN			-73.944234
300696 300697	NaN NaN	NaN NaN		-73.834587 -73.985922
300037	ivaiv	Ivaiv	40.700383	-73.963922
		Loc	ation	
0	(40.86568153633767,	-73.9235009557	1744)	
1	(40.775945312321085,	-73.9150939389	8605)	
2	(40.870324522111424, -73.88852464418646)			
3	(40.83599404683083, -73.82837939584206)			
4	(40.733059618956815, -73.87416975810375)			
5	(40.66082272389114,		•	
6	(40.840847591440415,		-	
7	(40.83750262540012, -73.90290517326568)			
8	(40.704977164399935, -73.8326047502584)			
9	(40.623793065806524,		•	
10	(40.752599671969676, -73.8933632141368)			
11	(40.85155492779258, -73.91999651358469) (40.845545043640215, -73.83358471831198)			
12 13	(40.68751060232221,		•	
15 14	(40.71409341858147,		•	
15	(40.71409341838147,		-	
16	(40.69252034680599,		-	
17	(40.679154133157326,		-	
	(101011101110101010101		/	

```
18
         (40.61655032892211, -73.93020153359745)
19
          (40.80526715877265, -73.9533526205901)
20
         (40.83672658684552, -73.90710561784778)
        (40.713198496024376, -73.87413871579652)
21
22
         (40.61478362623815, -73.93656784825214)
        (40.814001537165495, -73.94266395083876)
23
24
         (40.87006255915965, -73.86432172842636)
25
         (40.70982729683097, -73.78625714739626)
26
           (40.826101709196, -73.94566339279595)
27
          (40.68711749970851, -73.8255967145633)
          (40.78693045941381, -73.9732015755585)
28
29
        (40.691599059545375, -73.98437881826075)
         (40.68290569745191, -73.94035735919954)
300668
300669
         (40.82144605015569, -73.95037859121894)
        (40.767869319511156, -73.82621558171721)
300670
         (40.76342452850363, -73.99076591082245)
300671
          (40.68106756068015, -73.8639166657132)
300672
         (40.65732675940293, -73.92997866259482)
300673
         (40.80140973782622, -73.96594656979163)
300674
300675
         (40.82156143682672, -73.95063141802162)
300676
         (40.74318114209432, -73.91489390486979)
        (40.698976356744375, -73.91431921502723)
300677
        (40.699334367421585, -73.93748637968389)
300678
300679
         (40.70647527382003, -73.90750353701854)
300680
        (40.776590982604596, -73.94871864443712)
300681
        (40.679237323783724, -73.96335543308066)
        (40.712284534374824, -73.96400097454304)
300682
300683
         (40.67922632975442, -73.96330856984594)
        (40.722621191327846, -73.99243470311887)
300684
300685
         (40.77664591586459, -73.94880525662063)
300686
         (40.73248568650513, -74.00968804444769)
          (40.70635259429073, -73.8712445609601)
300687
         (40.74036064515079, -74.00578103597579)
300688
          (40.6803990181202, -73.92941723335176)
300689
300690
         (40.90040252667784, -73.84080863767632)
300691
           (40.863805379005, -73.92535778152539)
         (40.71605290789855, -73.99137850370803)
300692
300693
          (40.69407728322387, -73.8460866160573)
300694
         (40.69959035300927, -73.94423377144169)
300695
300696
          (40.8377075854206, -73.83458731019586)
300697
         (40.76058322950115, -73.98592204392392)
[300698 rows x 48 columns]>
```

In [9]: # Display the complaint type and city together
nyc1.loc[:,['Complaint Type','City']]

Out[9]:

	Complaint Type	City
0	Noise - Street/Sidewalk	NEW YORK
1	Blocked Driveway	ASTORIA
2	Blocked Driveway	BRONX
3	Illegal Parking	BRONX
4	Illegal Parking	ELMHURST
5	Illegal Parking	BROOKLYN
6	Illegal Parking	NEW YORK
7	Blocked Driveway	BRONX
8	Illegal Parking	KEW GARDENS
9	Blocked Driveway	BROOKLYN
10	Blocked Driveway	JACKSON HEIGHTS
11	Blocked Driveway	BRONX
12	Noise - Street/Sidewalk	BRONX
13	Illegal Parking	BROOKLYN
14	Derelict Vehicle	MIDDLE VILLAGE
15	Blocked Driveway	REGO PARK
16	Blocked Driveway	SAINT ALBANS
17	Noise - Commercial	BROOKLYN
18	Noise - Commercial	BROOKLYN
19	Noise - Street/Sidewalk	NEW YORK
20	Illegal Parking	BRONX
21	Illegal Parking	MIDDLE VILLAGE
22	Noise - Commercial	BROOKLYN
23	Illegal Parking	NEW YORK
24	Blocked Driveway	BRONX
25	Blocked Driveway	JAMAICA
26	Noise - House of Worship	NEW YORK
27	Blocked Driveway	SOUTH RICHMOND HILL
28	Illegal Parking	NEW YORK
29	Noise - Commercial	BROOKLYN
300668	Noise - Commercial	BROOKLYN
300669	Noise - Street/Sidewalk	NEW YORK
300670	Illegal Parking	FLUSHING
300671	Illegal Parking	NEW YORK

	Complaint Type	City
300672	Blocked Driveway	BROOKLYN
300673	Noise - Commercial	BROOKLYN
300674	Noise - Street/Sidewalk	NEW YORK
300675	Noise - Street/Sidewalk	NEW YORK
300676	Noise - Commercial	WOODSIDE
300677	Noise - Commercial	BROOKLYN
300678	Noise - Vehicle	BROOKLYN
300679	Blocked Driveway	RIDGEWOOD
300680	Noise - Vehicle	NEW YORK
300681	Noise - Street/Sidewalk	BROOKLYN
300682	Noise - Commercial	BROOKLYN
300683	Noise - Street/Sidewalk	BROOKLYN
300684	Noise - Commercial	NEW YORK
300685	Noise - Vehicle	NEW YORK
300686	Noise - Commercial	NEW YORK
300687	Blocked Driveway	RIDGEWOOD
300688	Noise - Commercial	NEW YORK
300689	Noise - Street/Sidewalk	BROOKLYN
300690	Illegal Parking	BRONX
300691	Noise - Commercial	NEW YORK
300692	Noise - Commercial	NEW YORK
300693	Noise - Commercial	NaN
300694	Blocked Driveway	RICHMOND HILL
300695	Noise - Commercial	BROOKLYN
300696	Noise - Commercial	BRONX
300697	Noise - Commercial	NEW YORK

300698 rows × 2 columns

Ou+[10].	0	Noise Street/Sidevalle
Out[10]:	0 1	Noise - Street/Sidewalk
	2	Blocked Driveway Blocked Driveway
	3	Illegal Parking
	4	Illegal Parking
	5	Illegal Parking
	6	Illegal Parking
	7	Blocked Driveway
	8	Illegal Parking
	9	Blocked Driveway
	10	Blocked Driveway
	11	Blocked Driveway
	12	Noise - Street/Sidewalk
	13	Illegal Parking
	14	Derelict Vehicle
	15	Blocked Driveway
	16	Blocked Driveway
	17	Noise - Commercial
	18	Noise - Commercial
	19	Noise - Street/Sidewalk
	20	Illegal Parking
	21	Illegal Parking
	22	Noise - Commercial
	23	Illegal Parking
	24	Blocked Driveway
	25	Blocked Driveway
	26	Noise - House of Worship
	27	Blocked Driveway
	28	Illegal Parking
	29	Noise - Commercial
	300668	 Noise - Commercial
	300669	Noise - Street/Sidewalk
	300670	Illegal Parking
	300671	Illegal Parking
	300672	Blocked Driveway
	300673	Noise - Commercial
	300674	Noise - Street/Sidewalk
	300675	Noise - Street/Sidewalk
	300676	Noise - Commercial
	300677	Noise - Commercial
	300678	Noise - Vehicle
	300679	Blocked Driveway
	300680	Noise - Vehicle
	300681	Noise - Street/Sidewalk
	300682	Noise - Commercial
	300683	Noise - Street/Sidewalk
	300684	Noise - Commercial
	300685	Noise - Vehicle
	300686	Noise - Commercial
	300687	Blocked Driveway
	300688	Noise - Commercial
	300689	Noise - Street/Sidewalk
	300690	Illegal Parking
	300691	Noise - Commercial
	300692	Noise - Commercial
	300693	Noise - Commercial

```
300694
                            Blocked Driveway
         300695
                          Noise - Commercial
         300696
                          Noise - Commercial
                          Noise - Commercial
         300697
         Name: Complaint Type, Length: 300698, dtype: object
In [11]: major.unique()
Out[11]: array(['Noise - Street/Sidewalk', 'Blocked Driveway', 'Illegal Parking',
                 'Derelict Vehicle', 'Noise - Commercial',
                 'Noise - House of Worship', 'Posting Advertisement',
                 'Noise - Vehicle', 'Animal Abuse', 'Vending', 'Traffic',
                 'Drinking', 'Bike/Roller/Skate Chronic', 'Panhandling',
                 'Noise - Park', 'Homeless Encampment', 'Urinating in Public',
                 'Graffiti', 'Disorderly Youth', 'Illegal Fireworks',
                 'Ferry Complaint', 'Agency Issues', 'Squeegee', 'Animal in a Park'],
                dtype=object)
In [12]: major.nunique()
Out[12]: 24
In [13]:
         # major complaints are Blocked Driveway
         top=major.value_counts()
         top
Out[13]: 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
         Name: Complaint Type, dtype: int64
```

Noise - Park

```
In [14]:
         # Find the top 10 complaint types
          top.head(10)
Out[14]: 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
```

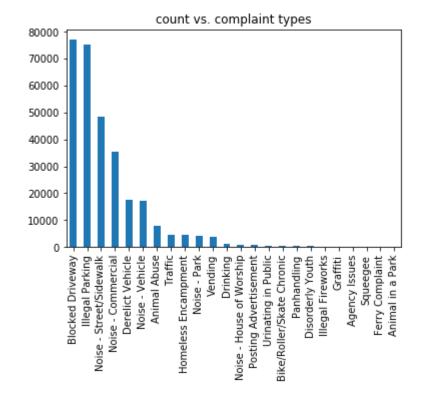
In [15]: # Plot a bar graph of count vs. complaint types
%matplotlib inline

4042

In [16]: | major.value_counts().plot(kind='bar',title='count vs. complaint types')

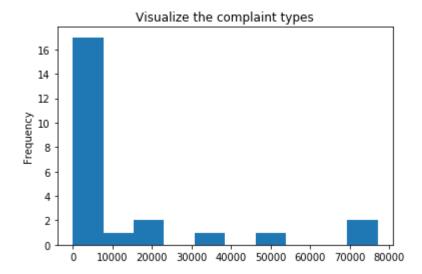
Out[16]: <matplotlib.axes._subplots.AxesSubplot at 0x11667860>

Name: Complaint Type, dtype: int64



```
In [17]: # Visualize the complaint types
top.plot(kind='hist',title='Visualize the complaint types')
```

Out[17]: <matplotlib.axes._subplots.AxesSubplot at 0x1178c908>



```
In [18]: # Display the major complaint types and their count
top.head(10).plot(kind='bar',title='The major complaint types and their count'
)
```

Out[18]: <matplotlib.axes._subplots.AxesSubplot at 0x118090f0>

