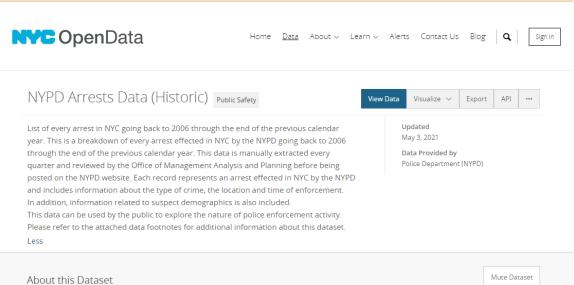
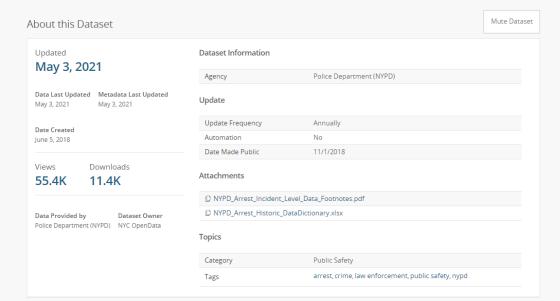
NYC Arrests

- NYPD Arrests Historical & YTD Data
- Assignment:
 - Data model
 - Data preparation
 - Data integration
 - BI

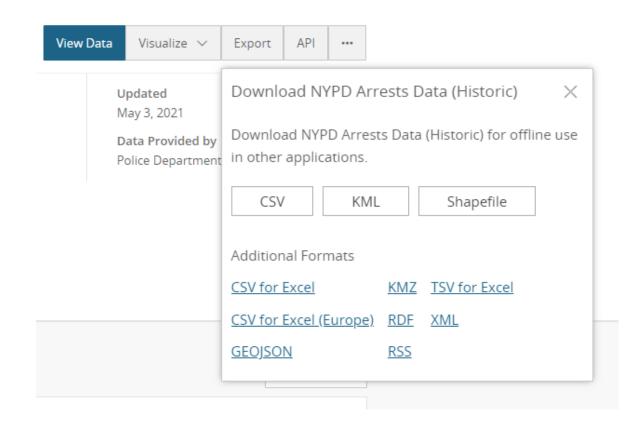




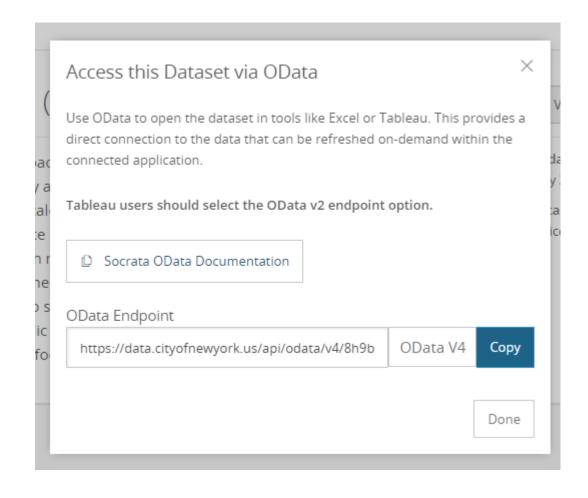


What's in th	is Dataset?					
Rows 5.15M	Columns 19	Each row is a Arrest in NY	C by NYPD			
Columns in	this Dataset					
Column Name			Description	Туре		
ARREST_KEY			Randomly generated persistent ID for each arrest	Plain Text	T	~
ARREST_DATE			Exact date of arrest for the reported event	Date & Time	苗	~
PD_CD			Three digit internal classification code (more granular than	Number	#	~
PD_DESC			Description of internal classification corresponding with PD	Plain Text	T	~
KY_CD			Three digit internal classification code (more general categ	Number	#	~
OFNS_DESC			Description of internal classification corresponding with KY	Plain Text	T	~
LAW_CODE			Law code charges corresponding to the NYS Penal Law, VT	Plain Text	T	~
LAW_CAT_CD			Level of offense: felony, misdemeanor, violation	Plain Text	T	~
ARREST_BORO			Borough of arrest. B(Bronx), S(Staten Island), K(Brooklyn),	Plain Text	Т	~
ARREST_PRECI	NCT		Precinct where the arrest occurred	Number	#	~
JURISDICTION	CODE		Jurisdiction responsible for arrest. Jurisdiction codes 0(Patr	Number	#	~
AGE_GROUP			Perpetrator's age within a category	Plain Text	T	~
PERP_SEX			Perpetrator's sex description	Plain Text	Т	~
PERP_RACE			Perpetrator's race description	Plain Text	T	~
X_COORD_CD			Midblock X-coordinate for New York State Plane Coordinat	Plain Text	T	~
Y_COORD_CD			Midblock Y-coordinate for New York State Plane Coordinat	Plain Text	T	~
Latitude			Latitude coordinate for Global Coordinate System, WGS 19	Number	#	~
Longitude			Longitude coordinate for Global Coordinate System, WGS 1	Number	#	~
Lon_Lat			Georeferenced Point Column based on Longitude and Latit	Point	8	~



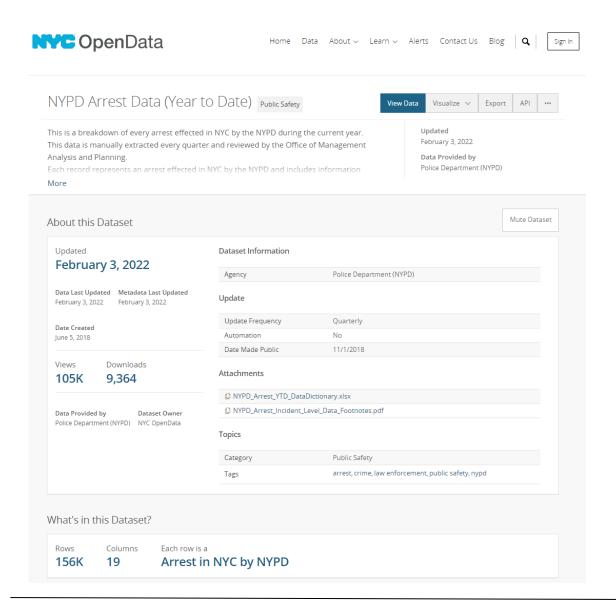


NYPD_Arrests_Data__Historic_.tsv



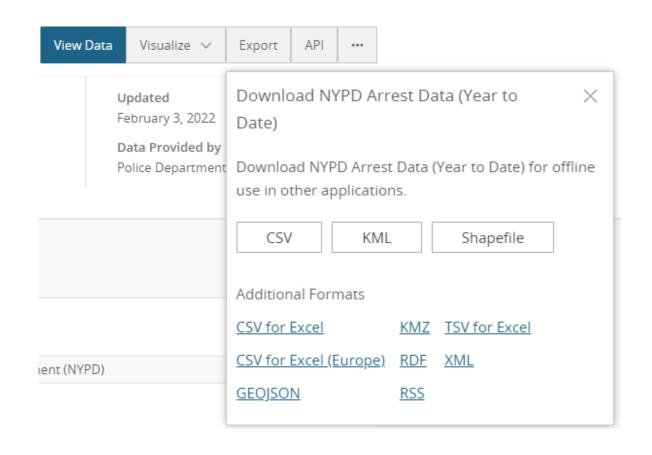
https://data.cityofnewyork.us/api/odata/v4/8h9b-rp9u

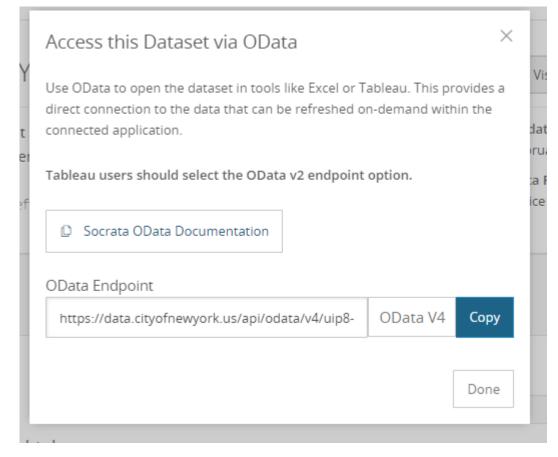




Rows 156K	Columns 19	Each row is a Arrest in NY	C by NYPD			
olumns i	n this Datas	et				
Column Nam	e		Description	Туре		
ARREST_KEY			Randomly generated persistent ID for each arrest	Plain Text	Т	
ARREST_DAT	E		Exact date of arrest for the reported event	Date & Time	田	
PD_CD			Three digit internal classification code (more granular than	Number	#	
PD_DESC			Description of internal classification corresponding with PD	Plain Text	Т	
KY_CD			Three digit internal classification code (more general categ	Number	#	
DFNS_DESC			Description of internal classification corresponding with KY	Plain Text	Т	
AW_CODE			Law code charges corresponding to the NYS Penal Law, VT	Plain Text	Т	
AW_CAT_CI)		Level of offense: felony, misdemeanor, violation	Plain Text	Т	
ARREST_BOR	RO		Borough of arrest. B(Bronx), S(Staten Island), K(Brooklyn),	Plain Text	Т	
ARREST_PRE	CINCT		Precinct where the arrest occurred	Number	#	
URISDICTIO	N_CODE		Jurisdiction responsible for arrest. Jurisdiction codes 0(Patr	Number	#	
AGE_GROUP			Perpetrator's age within a category	Plain Text	Т	
PERP_SEX			Perpetrator's sex description	Plain Text	Т	
PERP_RACE			Perpetrator's race description	Plain Text	Т	
C_COORD_CI	D		Midblock X-coordinate for New York State Plane Coordinat	Number	#	
_COORD_CI	D		Midblock Y-coordinate for New York State Plane Coordinat	Number	#	
atitude			Latitude coordinate for Global Coordinate System, WGS 19	Number	#	
ongitude.			Longitude coordinate for Global Coordinate System, WGS 1	Number	#	
New Georef	erenced Column			Point	Q.	







NYPD_Arrests_Data__Historic_.tsv

https://data.cityofnewyork.us/api/odata/v4/uip8-fykc



NYPD Arrests Data – YTD Dashboard



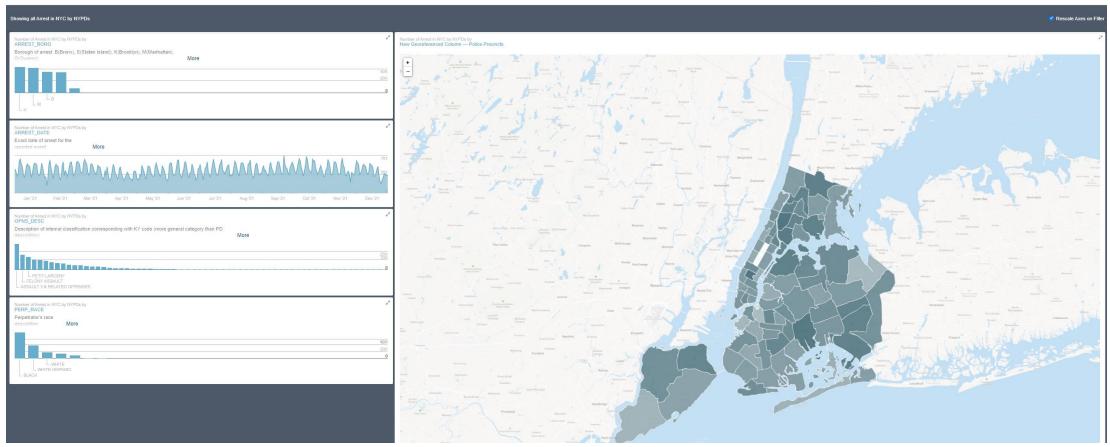
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NYPD YTD Arrests - Summary Dashboard

SOURCE DATASET NYPD Arrest Data (Year To Date)

The following visualizations summarize every arrest effected in NYC by the NYPD during the current year. This data is published quarterly. Each record represents an arrest effected in NYC by the NYPD and includes information about the type of crime, the location and time of enforcement. In addition, information related to suspect demographics is also included. This data can be used by the orbific to explore the nature of police enforcement activity. Show more

Export API





NYPD Arrests Data - Historical Dashboard



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NYPD YTD Arrests - Summary Dashboard

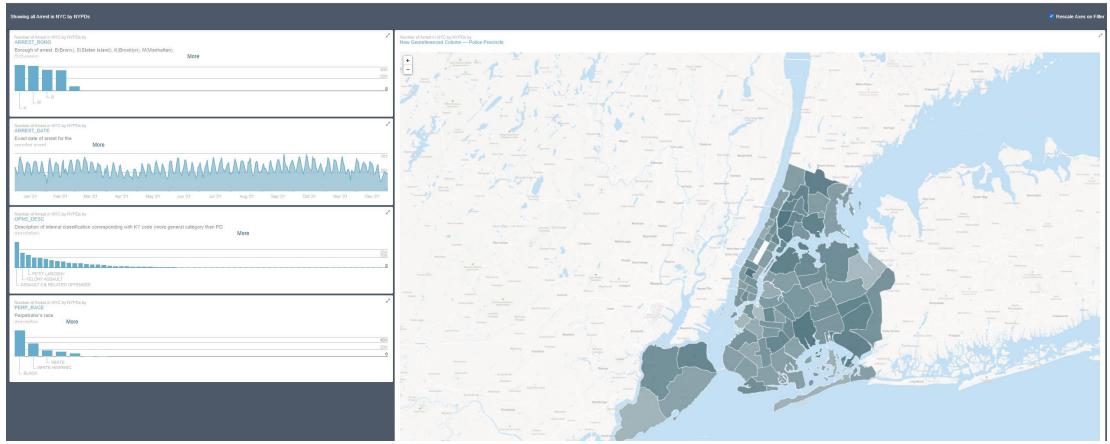
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Show more

Export API





NYPD Arrests Data Deliverables



Assignment: NYPD Arrests Data

Data Sources:

- NYPD_Arrests_Data__Historic_.tsv
- NYPD_Arrest_Data__Year_to_Date_.tsv

Target Databases

- For Talend: SQL Server, Azure SQL, MySQL, Azure Database for MySQL
- For Alteryx: PostgreSQL, Oracle, MySQL or Azure Database for MySQL if not used for Talend

BI (Develop all visualizations and dashboards in both tools

- Power BI
- Tableau



Data Dictionary

Column Name	Column Description
ARREST_KEY	Randomly generated persistent ID for each arrest
ARREST_DATE	Exact date of arrest for the reported event
PD_CD	Three digit internal classification code (more granular than Key Code)
PD_DESC	Description of internal classification corresponding with PD code (more granular than Offense Description)
KY_CD	Three digit internal classification code (more general category than PD code)
OFNS_DESC	Description of internal classification corresponding with KY code (more general category than PD description)
LAW_CODE	Law code charges corresponding to the NYS Penal Law, VTL and other various local laws
LAW_CAT_CD	Level of offense: felony, misdemeanor, violation
ARREST_BORO	Borough of arrest. B(Bronx), S(Staten Island), K(Brooklyn), M(Manhattan), Q(Queens)
ARREST_PRECINCT	Precinct where the arrest occurred
JURISDICTION_CODE	Jurisdiction responsible for arrest. Jurisdiction codes 0(Patrol), 1(Transit) and 2(Housing) represent NYPD whilst codes 3
AGE GROUP	and more represent non NYPD jurisdictions Perpetrator's age within a category
PERP_SEX	Perpetrator's sex description
PERP_RACE	Perpetrator's race description
X_COORD_CD	Midblock X-coordinate for New York State Plane Coordinate System, Long Island Zone, NAD 83, units feet (FIPS 3104)
Y_COORD_CD	Midblock Y-coordinate for New York State Plane Coordinate System, Long Island Zone, NAD 83, units feet (FIPS 3104)
Latitude	Latitude coordinate for Global Coordinate System, WGS 1984, decimal degrees (EPSG 4326)
Longitude	Longitude coordinate for Global Coordinate System, WGS 1984, decimal degrees (EPSG 4326)

Data Dictionary:

NYPD_Arrest_YTD_DataDictionary.xlsx NYPD_Arrest_Historic_DataDictionary.xlsx



Deliverables: NYPD Arrests Data

- Design & create Stage tables
- Load Stage tables
- Design & create Dimensional tables
- Load Dimensional Model
- Create BI dashboards
- Upload
 - Data Model picture & ER Studio file
 - Table row counts
 - Data integration workflows snapshots of completed workflows
 - Alteryx & Talend exports of above
 - BI dashboard snapshots
 - Upload Power BI & Tableau files



Deliverables: NYPD Arrests Data

BI Deliverables

- Map arrests on map
 - Total arrests, filtered by different attributes such as age_group, KY_Code, etc
- Provide trend charts # of arrests by date
 - Total arrests and filtered by different attributes such as age_group, KY_Code, etc.
- Provide comparisons and contribution visualizations for various attribues
 - Year
 - Age_Group
 - Arrest_Borough
 - KY_Code
 - Code
 - PERP_RACE

