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Github Repository: Project2_Gamage_Jain_Jangle

Dataset: [Crime in Los Angeles](): Crime data from 2010 through September 2017
- Supplementary taxonomy: MO_Codes.csv

Dataset Structure:
98518 rows x 26 columns

Column Name	Example Value	Column Description
DR Number	1208575	Division of Records Number - Official file number made up of a 2 digit year, area ID, and 5 digits
Date Reported	03/14/2013	MM/DD/YYYY
Date Occurred	03/11/2013	MM/DD/YYYY
Time Occurred	1800.0	In 24 hour military time
Area ID	12.0	The LAPD has 21 Community Police Stations referred to as Geographic Areas within the department. These Geographic Areas are sequentially numbered from 1-21
Area Name	77th Street	The 21 Geographic Areas or Patrol Divisions are also given a name designation that references a landmark or the surrounding community that it is responsible for. For example, 77th Street Division is located at the intersection of South Broadway and 77th Street, serving neighborhoods in South Los Angeles
Reporting District	1241.0	A four-digit code that represents a sub-area within a Geographic Area. All crime records reference the "RD" that it occurred in for statistical comparisons
Crime Code	626.0	Indicates the crime committed
Crime Code Description	INTIMATE PARTNER - SIMPLE ASSAULT	Defines the Crime Code above
MO Codes	100	Modus Operandi - Activities associated with the suspect in commission of the crime. Defined in MO_Codes.csv
Victim Age	30.0	Two character numeric
Victim Sex	F	F - Female, M - Male, X - Unknown
Victim Descent	W	Descent Code: A - Other Asian, B - Black, C - Chinese, D - Cambodian, F - Filipino, G - Guamanian, H - Hispanic/Latin/Mexican, I - American Indian/Alaskan Native, J - Japanese, K - Korean, L - Laotian, O - Other, P - Pacific Islander, S - Samoan, U - Hawaiian, V - Vietnamese, W - White, X - Unknown, Z - Asian Indian

Premise Code	502.0	The type of structure, vehicle, or location where the crime took place
Premise Description	MULTI-UNIT DWELLING (APARTMENT, DUPLEX, ETC)	Defines the Premise Code above.
Weapon Used Code	400.0	The type of weapon used in the crime
Weapon Description	STRONG-ARM (HANDS, FIST, FEET OR BODILY FORCE)	Defines the Weapon Used Code above
Status Code	AO	Status of the case. (IC is the default)
Status Description	Adult Other	Defines the Status Code above
Crime Code 1	510.0	Indicates the crime committed. Crime Code 1 is the primary and most serious one. Crime Code 2, 3, and 4 are respectively less serious offenses. Lower crime class numbers are more serious
Crime Code 2	626.0	May contain a code for an additional crime, less serious than Crime Code 1
Crime Code 3	626.0	May contain a code for an additional crime, less serious than Crime Code 1
Crime Code 4	626.0	May contain a code for an additional crime, less serious than Crime Code 1
Address	6300 BRYNHURST AV	Street address of crime incident rounded to the nearest hundred block to maintain anonymity
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Location	(33.9829, -118.3338)	Latitude, Longitude of crime location

Variables of exploration:
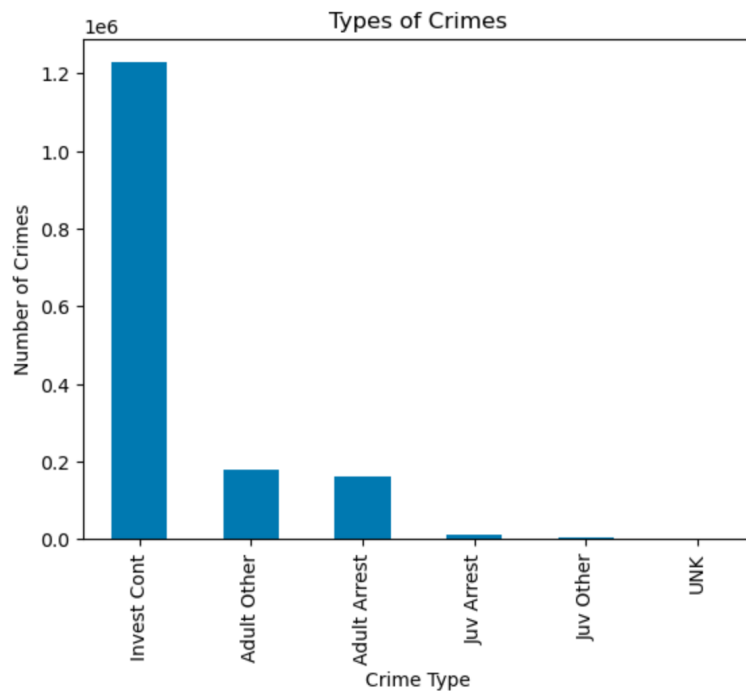
We will be using:

- Weapon Description
- Crime Code Description
- MO Codes
- Date Occurred
- Time Occurred
- Status Description
- Area Name
- Premise Description
- Victim Descent
- Victim Age
- Victim Sex
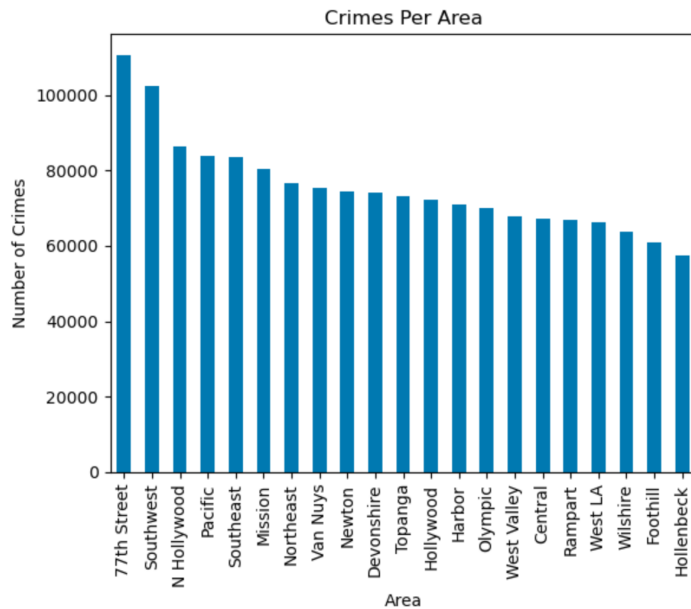
Initial exploration plots/figures/tables:

We are going to be looking at the variables above. In our initial exploration, we will first build bar graphs and histograms to look at the most common values visually. We will also look at sample values and make any data adjustments as needed. For example, we will need to convert the date values from strings to timestamps so we can pull month and year information.

Data Cleaning:
- Convert date values from strings to timestamps
- Map the MO Codes to the actual values with the MO_Codes taxonomy csv

Plan for the final report/questions to be answered:

- <u>Types of Crimes</u>
  - What is the most common weapon used for each type of crime committed?
  - Are some MO codes more common in specific areas of LA?
  - What areas have the most crimes and what types of crime are more common in certain areas?
- <u>Timing of Crime</u>
  - Are there certain days of the week or time of the day with more crime occuring?
  - In which month or year were most crimes reported/committed?
  - Are certain crimes more common in certain times of day?
  - Are certain types of crimes more likely to be ongoing?
- <u>Victims</u>
  - Is a specific age or gender targeted more?
  - Is a specific ethnic group targeted more in a specific area of LA?
- <u>Perpetrators</u>
  - How many crimes were done by adults vs juveniles in different premises?