PROJECT: ANALYZING CRIME IN LOS ANGELES

Los Angeles, California 😎. The City of Angels. Tinseltown. The Entertainment Capital of the World!

Known for its warm weather, palm trees, sprawling coastline, and Hollywood, along with producing some of the most iconic films and songs. However, as with any highly populated city, it isn't always glamorous and there can be a large volume of crime. That's where you can help!

You have been asked to support the Los Angeles Police Department (LAPD) by analyzing crime data to identify patterns in criminal behavior. They plan to use your insights to allocate resources effectively to tackle various crimes in different areas.

The Data

They have provided you with a single dataset to use. A summary and preview are provided below.

It is a modified version of the original data, which is publicly available from Los Angeles Open Data.

crimes.csv

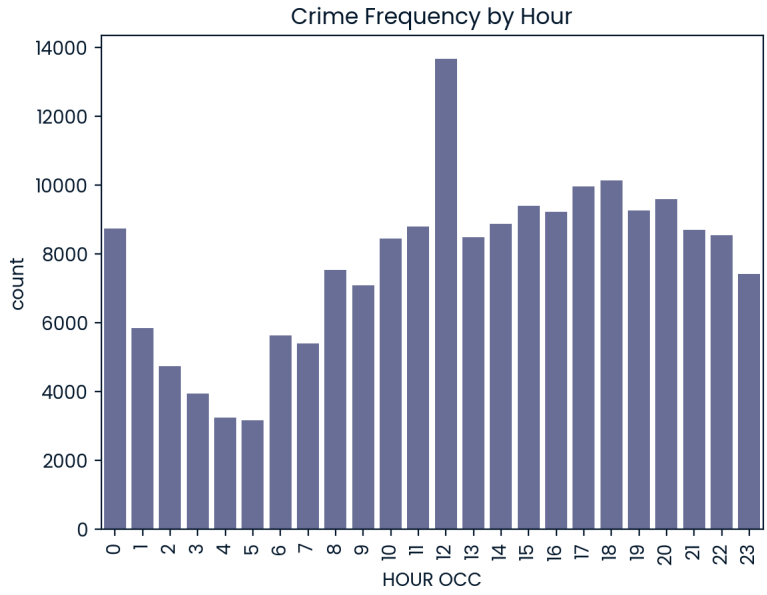
Column	Description
`'DR_NO'`	Division of Records Number: Official file number made up of a 2-digit year, area ID, and 5 digits.
`'Date Rptd'`	Date reported - MM/DD/YYYY.
`'DATE OCC'`	Date of occurrence - MM/DD/YYYY.
`'TIME OCC'`	In 24-hour military time.
`'AREA NAME'`	The 21 Geographic Areas or Patrol Divisions are also given a name designation that references a landmark or the surrounding community that it is responsible for. For example, the 77th Street Division is located at the intersection of South Broadway and 77th Street, serving neighborhoods in South Los Angeles.
`'Crm Cd Desc'`	Indicates the crime committed.
`'Vict Age'`	Victim's age in years.
`'Vict Sex'`	Victim's sex: `F` : Female, `M` : Male, `X` : Unknown.
`'Vict Descent'`	Victim's descent: • `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
`'Weapon Desc'`	Description of the weapon used (if applicable).
`'Status Desc'`	Crime status.
`'LOCATION'`	Street address of the crime.

```
# Re-run this cell
# Import required libraries
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
crimes = pd.read_csv("crimes.csv", dtype={"TIME OCC": str})
crimes.head()
```

i...	DR_NO	Date Rptd	DATE OC...	TIM...	AREA NAME	Crm Cd Desc
0	220314085	2022-07-22	2020-05-12	1110	Southwest	THEFT OF IDENTITY
1	222013040	2022-08-06	2020-06-04	1620	Olympic	THEFT OF IDENTITY
2	220614831	2022-08-18	2020-08-17	1200	Hollywood	THEFT OF IDENTITY
3	231207725	2023-02-27	2020-01-27	0635	77th Street	THEFT OF IDENTITY
4	220213256	2022-07-14	2020-07-14	0900	Rampart	THEFT OF IDENTITY

Rows: 5 Expand

```
# Start coding here
# Use as many cells as you need
crimes["HOUR OCC"] = crimes["TIME OCC"].str[:2].astype(int)

sns.countplot(data=crimes, x="HOUR OCC")
plt.xticks(rotation=90)
plt.title("Crime Frequency by Hour")
plt.show()

peak_crime_hour = crimes["HOUR OCC"].value_counts().idxmax()

night_hours = [22, 23, 0, 1, 2, 3]
night_crimes = crimes[crimes["HOUR OCC"].isin(night_hours)]

peak_night_crime_location = night_crimes["AREA NAME"].value_counts().idxmax()

age_bins = [0, 17, 25, 34, 44, 54, 64, np.inf]
age_labels = ["0-17", "18-25", "26-34", "35-44", "45-54", "55-64", "65+"]

crimes["Age Bracket"] = pd.cut(crimes["Vict Age"], bins=age_bins, labels=age_labels, right=True)
victim_ages = crimes["Age Bracket"].value_counts().sort_index()

print("peak_crime_hour:", peak_crime_hour)
print("peak_night_crime_location:", peak_night_crime_location)
print("victim_ages:\n", victim_ages)
```




```
peak_crime_hour: 12
peak_night_crime_location: Central
victim_ages:
 0-17      4528
18-25    28291
26-34    47470
35-44    42157
45-54    28353
55-64    20169
65+      14747
Name: Age Bracket, dtype: int64
```