



CRIME DATA ANALYSIS USING PYTHON & MYSQL

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OBJECTIVE

TO ANALYZE CRIME PATTERNS OVER
TIME, IDENTIFY HOTSPOTS, AND
UNCOVER MEANINGFUL INSIGHTS
FOR POLICY AND PREVENTION



TOOLS & TECH STACK

- Python (Pandas, Matplotlib/Seaborn)
- PyMySQL (For DB Connection)
- MySQL (For Storing / Querying Data)

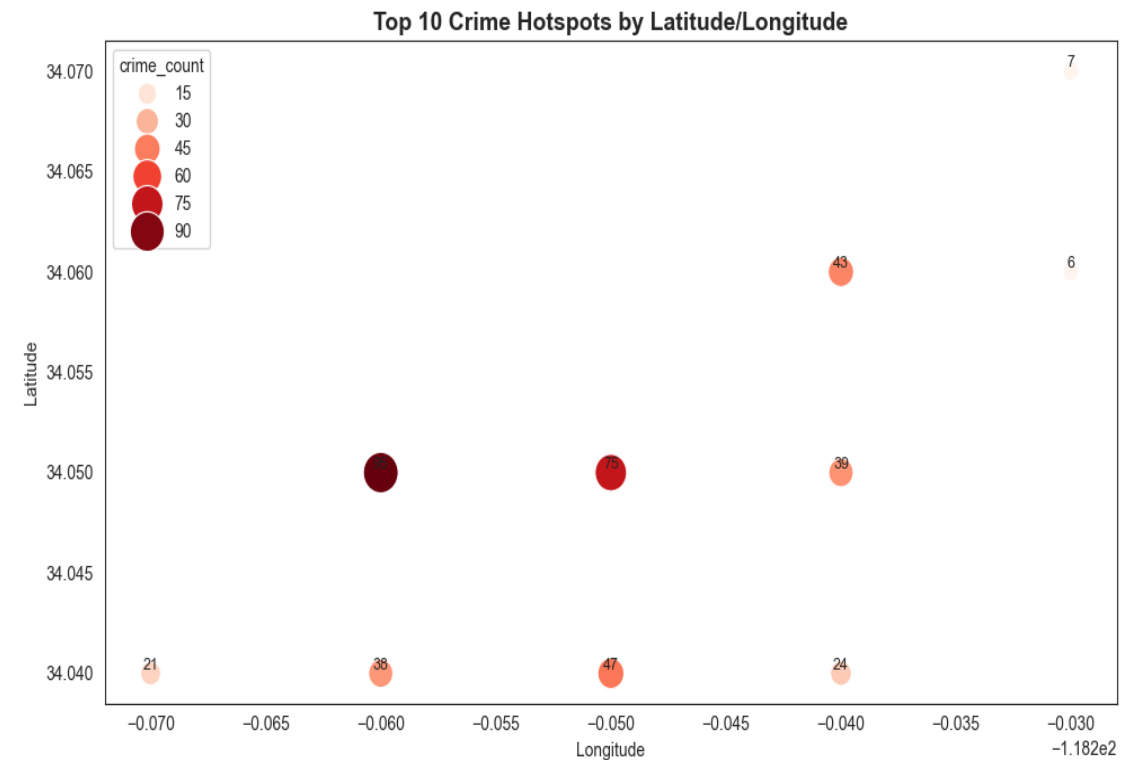
DATASET OVERVIEW

DATASET INFO

#	Column	Non-Null Count	Dtype
0	DR_NO	499 non-null	int64
1	Date_Rptd	499 non-null	Object
2	DATE_OCC	499 non-null	object
3	AREA_NAME	499 non-null	object
4	Crm_Cd	499 non-null	Int64
5	Crm_Cd_Desc	499 non-null	object
6	Vict_Age	499 non-null	int64
7	Vict_Sex	499 non-null	object
8	Premis_Desc	499 non-null	object
9	Status	499 non-null	object
10	Location	499 non-null	object
11	LAT	499 non-null	float64
12	LON	499 non-null	float64

TOP 10 CRIME HOTSPOT BY LATITUDE AND LONGITUDE

	lat_group	lon_group	crime_count
0	34.05	-118.26	95
1	34.05	-118.25	75
2	34.04	-118.25	47
3	34.06	-118.24	43
4	34.05	-118.24	39
5	34.04	-118.26	38
6	34.04	-118.24	24
7	34.04	-118.27	21
8	34.07	-118.23	7
9	34.06	-118.23	6

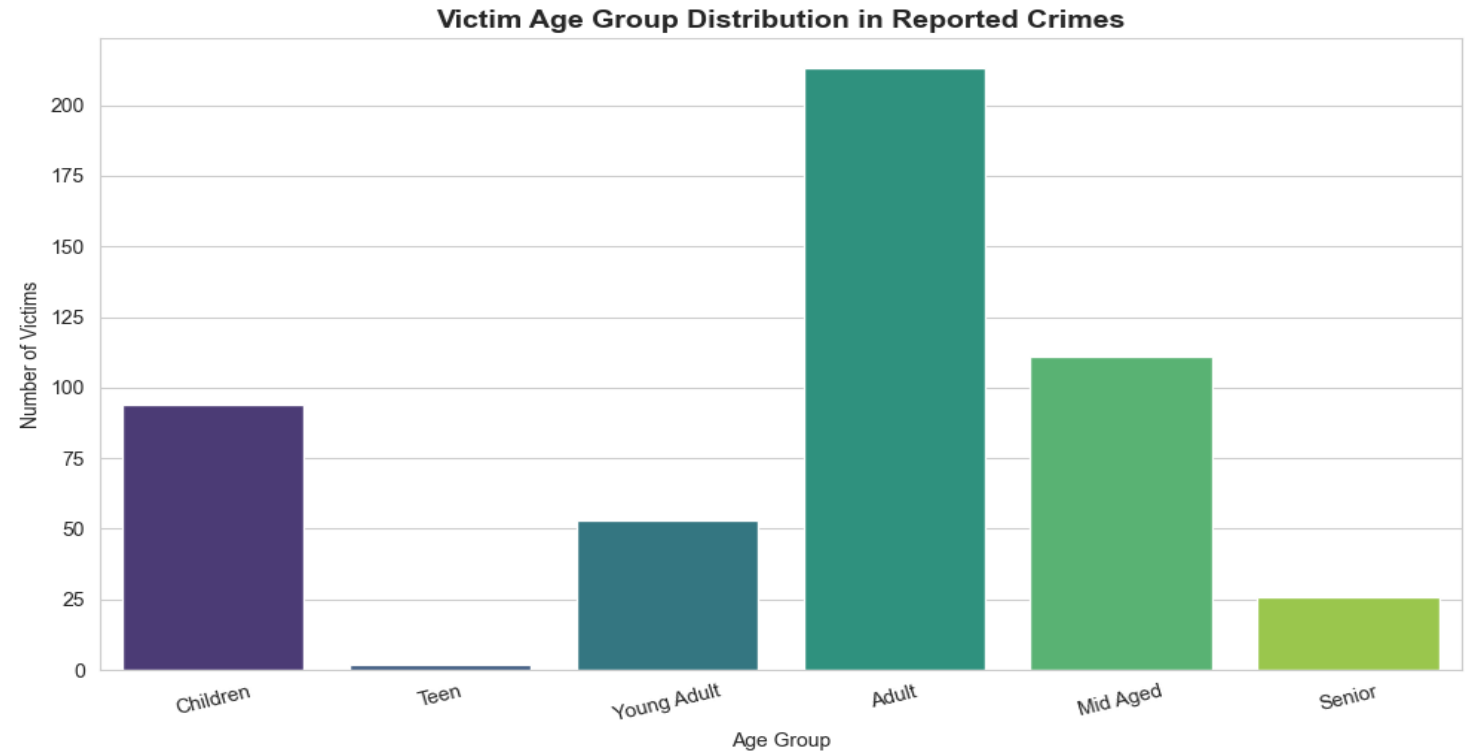


AGE GROUP DISTRIBUTION

Insight:

Most Common Victim: Adult

	age_group	Total_Count
0	Adult	213
1	Mid Aged	111
2	Children	94
3	Young Adult	53
4	Senior	26
5	Teen	2

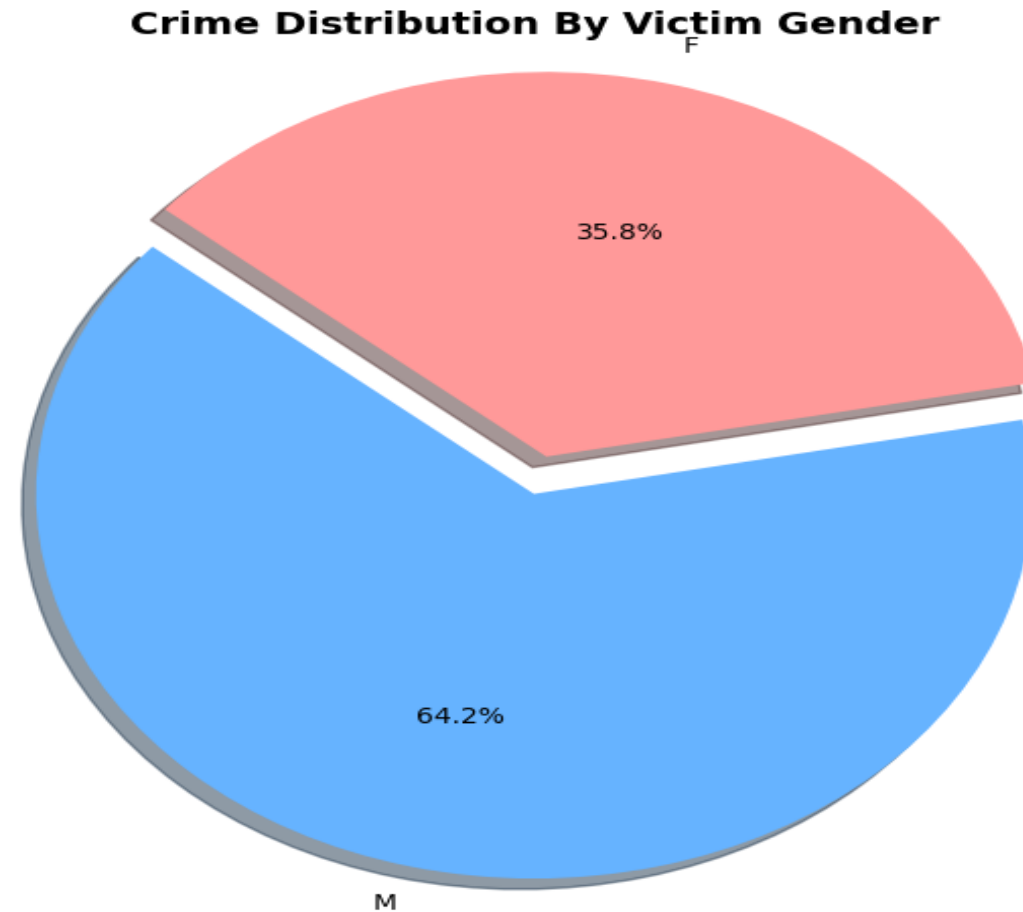


GENDER-WISE DISTRIBUTION OF VICTIMS

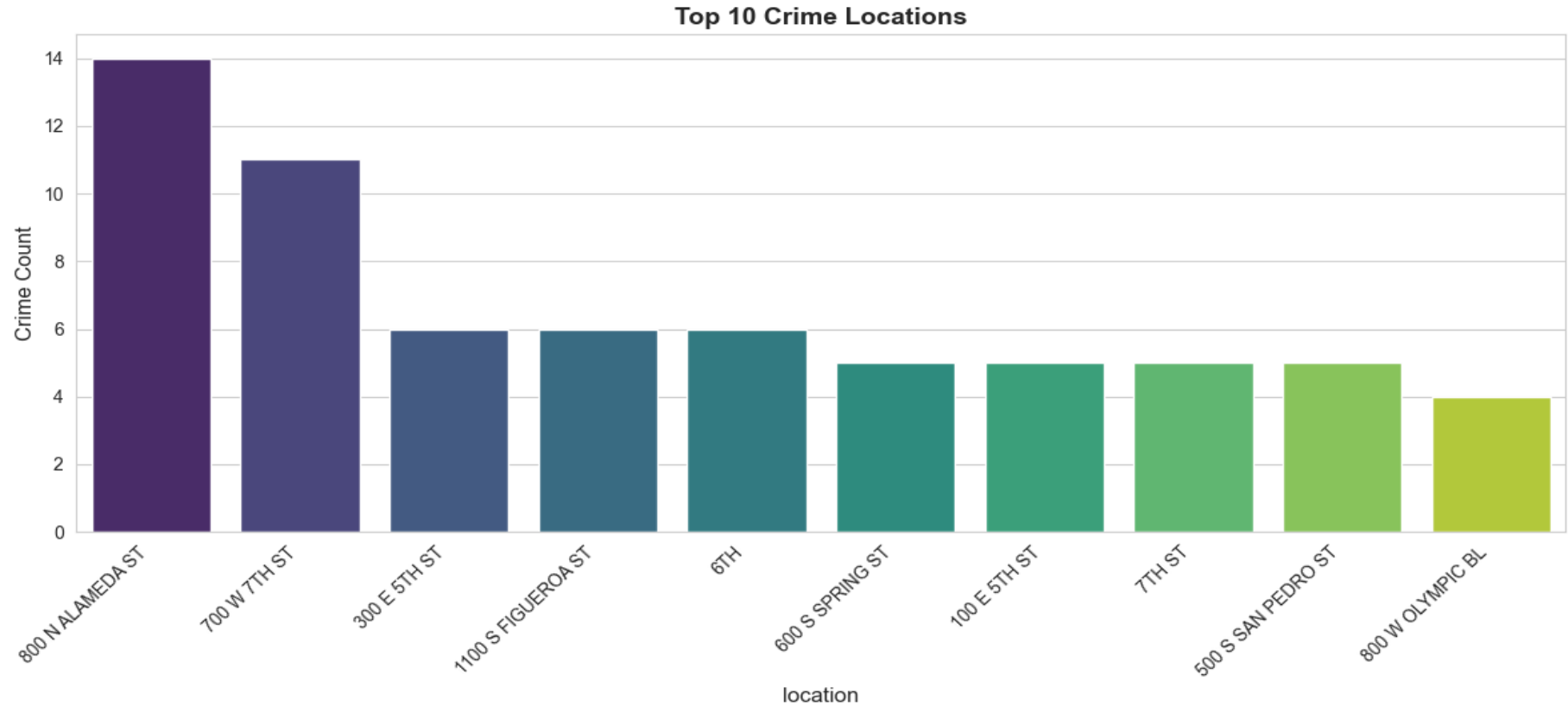
Insight:

64.2% of victims were male

Vict_Sex	Gender_Count
0	M 278
1	F 155



LOCATION WISE CRIME HOTSPOT

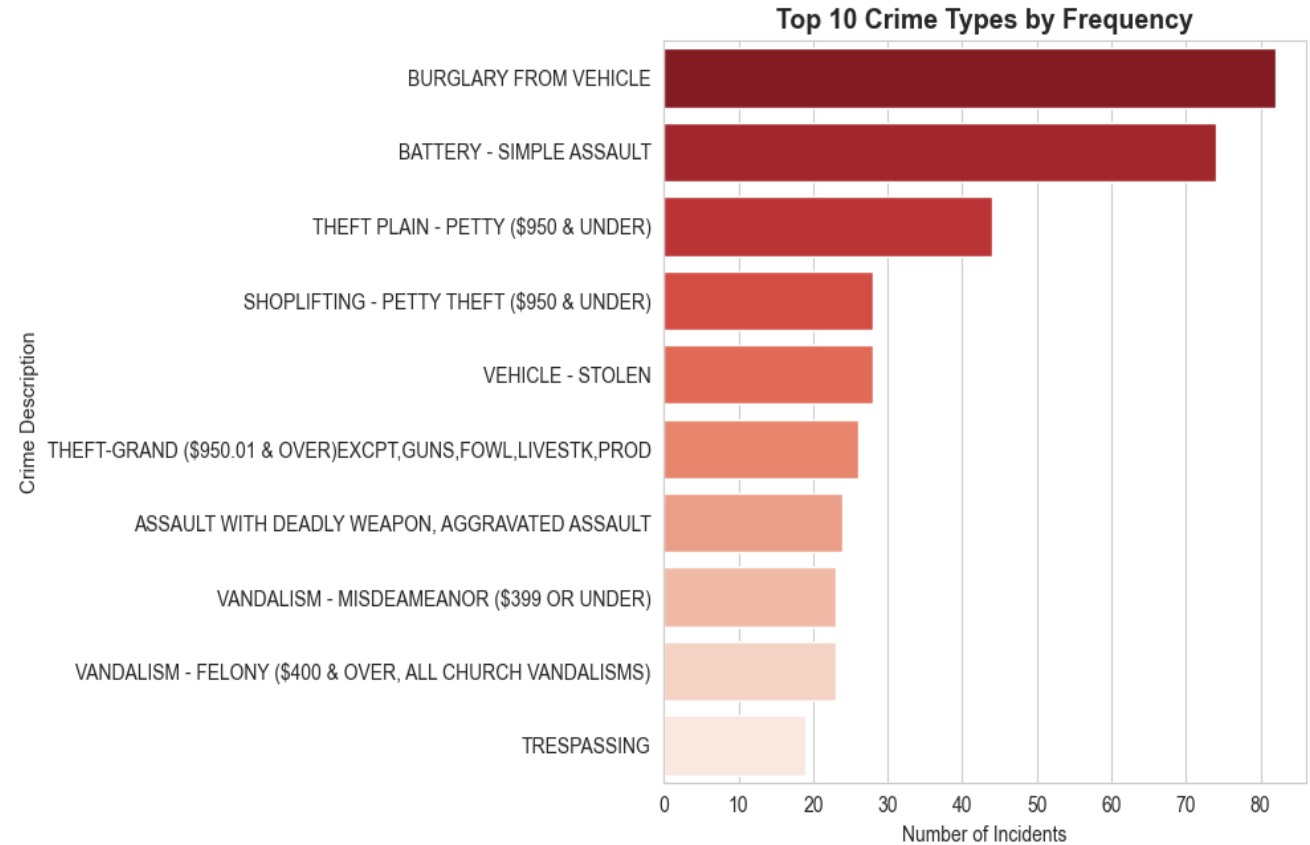


	Location	crime_count
0	800 N ALAMEDA ST	14
1	700 W 7TH ST	11
2	300 E 5TH ST	6
3	1100 S FIGUEROA ST	6
4	6TH	6
5	600 S SPRING ST	5
6	100 E 5TH ST	5
7	7TH ST	5
8	500 S SAN PEDRO ST	5
9	800 W OLYMPIC BL	4

ANALYSIS BY CRIME CODE DESCRIPTION

Insight: Most common crime:
BURGLARY FROM VEHICLE

	Crm_Cd	Crm_Cd_Desc	crime_count
0	330	BURGLARY FROM VEHICLE	82
1	624	BATTERY - SIMPLE ASSAULT	74
2	440	THEFT PLAIN - PETTY (\$950 & UNDER)	44
3	442	SHOPLIFTING - PETTY THEFT (\$950 & UNDER)	28
4	510	VEHICLE - STOLEN	28
5	341	THEFT-GRAND (\$950.01 & OVER)EXCPT,GUNS,FOWL,LI...	26
6	230	ASSAULT WITH DEADLY WEAPON, AGGRAVATED ASSAULT	24
7	745	VANDALISM - MISDEAMEANOR (\$399 OR UNDER)	23
8	740	VANDALISM - FELONY (\$400 & OVER, ALL CHURCH VA...	23
9	888	TRESPASSING	19



RECOMMENDATIONS

- Focus patrolling in high crime zones
- Analyze trends before festive seasons
- Use predictive modeling for resource allocation
- At high crime zone install more CCTV Camera





CONCLUSION

THIS ANALYSIS REVEALS CLEAR PATTERNS IN VICTIM DEMOGRAPHICS, CRIME TYPES, AND GEOGRAPHIC HOTSPOTS. MALES AND ADULTS ARE THE MOST FREQUENT VICTIMS, WITH "BURGLARY FROM VEHICLE" BEING THE TOP CRIME REPORTED. DATA-DRIVEN INSIGHTS LIKE THESE CAN GUIDE SMARTER LAW ENFORCEMENT STRATEGIES, TARGETED RESOURCE ALLOCATION, AND IMPROVED PUBLIC SAFETY PLANNING.





THANK YOU

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