Crime Analysis Report for San Diego

Data Context

The data used in this project is sourced from the official database of the San Diego government and pertains to crimes recorded in the city over several years. This database includes various aspects such as crime categories, geographic locations, dates and times of occurrence, as well as details about neighborhoods and police service areas. The aim of this analysis is to gain a better understanding of crime distribution and to identify significant trends for security and prevention purposes.

Database scheme and design

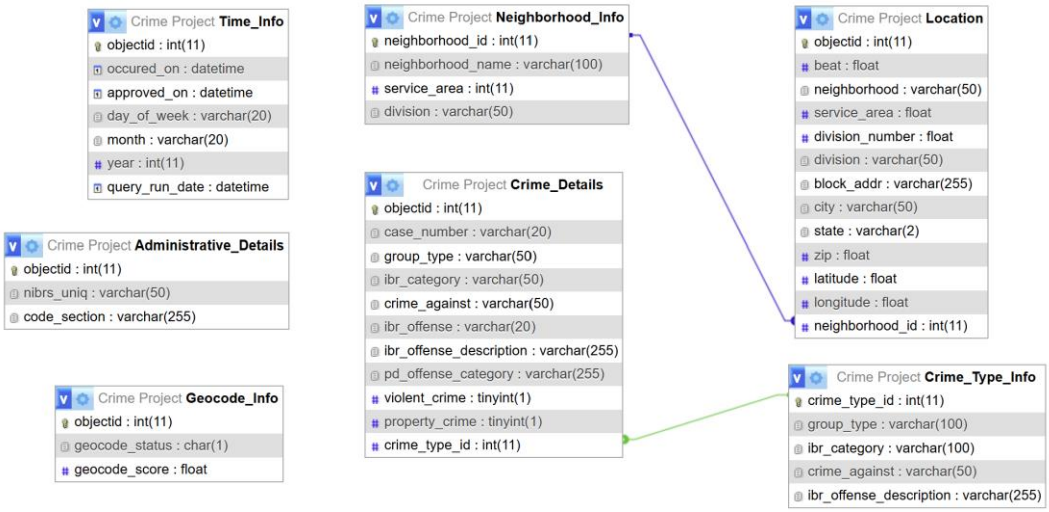
The database is structured into seven main tables to organize information coherently and enable multidimensional analyses of crimes in San Diego. Each table is connected through primary and foreign keys to ensure data integrity and facilitate complex joins.

The Administrative_Details table contains unique administrative information for each crime, such as the object identifier (objectid) serving as the primary key, the unique NIBRS identifier (nibrs_uniq), and the applicable legal code section (code_section). The objectid is used to establish a one-to-one relationship with the Crime_Details table. The Crime_Details table captures detailed information about each incident, including the police case number (case_number), group type (group_type), IBR category (ibr_category), crime target (crime_against), and whether the crime is violent (violent_crime) or against property (property_crime). It also includes the foreign key crime_type_id, linking it to the Crime_Type_Info table. This connection allows for centralized management of crime typology and categorization. The Crime_Type_Info table provides information on the classification of crimes, with columns such as group_type, ibr_category, crime_against, and ibr_offense_description. The crime_type_id serves as the primary key, allowing crimes in the Crime_Details table to be grouped for comparative analyses based on similar characteristics. The Geocode_Info table stores geocoding details for each crime, including the geocoding status (geocode_status) and the accuracy score (geocode_score). The objectid serves as a primary key, linking it to the Crime_Details table. These attributes enable spatial analysis and validation of crime location accuracy.

The Location table provides detailed geographic information about each crime, such as the patrol area (beat), neighborhood (neighborhood), service area (service_area), police division (division), and geographic coordinates (latitude and longitude). The neighborhood_id serves as a foreign key, linking this table to Neighborhood_Info, which provides additional context about neighborhoods. The Neighborhood_Info table includes specific information about neighborhoods, such as the neighborhood name (neighborhood_name) and service area (service_area). The neighborhood_id acts as the primary key and connects this table to the Location table for geographic aggregation and analysis.

The Time_Info table consolidates temporal details about crimes, including the date and time of occurrence (occurred_on), the date the report was approved (approved_on), the day of the week (day_of_week), the month (month), and the year (year). The objectid serves as the primary key and links back to the Crime_Details table for temporal trend analyses. This database structure is optimized to ensure flexibility and consistency in analyzing crimes in San Diego, enabling comprehensive insights across temporal, geographic, and typological dimensions.

Conception schema



Global Problematic

What are the geographic and temporal characteristics of violent crimes in the city of San Diego, and how can these characteristics inform public safety strategies to reduce these crimes?

Queries and Views to answer our problematic

Category 1: CRIME LOCATION

Q1. What types of crimes are committed in San Diego?

SELECT city, ibr_category, COUNT(*) AS crime_count

FROM Crime_Details

INNER JOIN Location

ON Crime_Details.objectid = Location.objectid

WHERE city= "SAN DIEGO"

GROUP BY city, ibr_category

ORDER BY crime_count DESC;

city	ibr_category	crime_count ▼ 1
SAN DIEGO	GROUP "B" OFFENSES	811
SAN DIEGO	LARCENY/THEFT OFFENSES	581
SAN DIEGO	ASSAULT OFFENSES	401
SAN DIEGO	DESTRUCTION/DAMAGE/VANDALISM OF PROPERTY	265
SAN DIEGO	MOTOR VEHICLE THEFT	236
SAN DIEGO	DRUG/NARCOTIC OFFENSES	234
SAN DIEGO	FRAUD OFFENSES	130

The most frequent types of crimes in San Diego are "GROUP B" offenses with 811 incidents, followed by larceny/theft offenses (581 incidents) and assault offenses (401 incidents).

Q2. How many crimes have been reported in each division?

SELECT division, COUNT(*) AS crime_count

FROM Location

INNER JOIN Crime_Details

ON Location.objectid = Crime_Details.objectid

GROUP BY division;

division	crime_count
Central	596
Eastern	335
Mid-City	350
Northeastern	216
Northern	412
Northwestern	85
Southeastern	254
Southern	233
Unknown	22
Western	497

The Central division has the highest number of reported crimes with 596 incidents, followed by the Western division with 497 incidents and the Northern division with 412 incidents.

Q3. Which zip codes in San Diego have the most crimes?

SELECT zip, COUNT(*) AS crime_count

FROM Location

INNER JOIN Crime_Details

ON Location.objectid = Crime_Details.objectid

WHERE city="SAN DIEGO"

GROUP BY zip

ORDER BY crime_count DESC;

zip	crime_count ▼ 1
92101	444
92110	181
92108	159
92109	154
92113	154
92115	144
92105	143
92154	138
92104	106
92103	103

The zip code 92101 has the highest number of reported crimes with 444 incidents, followed by zip code 92110 with 181 incidents and zip code 92108 with 159 incidents.

Q 4. View: Crimes by Division and Neighborhood

CREATE VIEW Crimes_By_Division_Neighborhood AS

SELECT division, neighborhood, COUNT(*) AS crime_count

FROM Location

INNER JOIN Crime_Details

ON Location.objectid = Crime_Details.objectid

GROUP BY division, neighborhood;

division	neighborhood	crime_count
Central	Balboa Park	19
Central	Barrio Logan	40
Central	Core-Columbia	80
Central	Cortez	18
Central	East Village	147
Central	Gaslamp	69
Central	Golden Hill	12
Central	Grant Hill	8
Central	Harborview	8
Central	Horton Plaza	7
Central	Little Italy	27
Central	Logan Heights	34
Central	Marina	34
Central	Park West	34
Central	Petco Park	27
Central	Sherman Heights	11
Central	South Park	7
Central	Stockton	14
Eastern	Allied Gardens	12
Eastern	Birdland	12
Eastern	College East	15
Eastern	College West	17
Eastern	Del Cerro	10
Eastern	Grantville	43
Eastern	Kearney Mesa	53
Eastern	Lake Murray	15
Eastern	Mission Valley East	95
Eastern	San Carlos	9
Eastern	Serra Mesa	29
Eastern	Tierra Santa	25
Mid-City	Adams North	3
Mid-City	Azalea/Hollywood Park	8
Mid-City	Burlingame	1
Mid-City	Castle	19
Mid-City	Cherokee Point	8
Mid-City	Chollas Creek	7
Mid-City	Colina Del Sol	26
Northeastern	Carmel Mountain	10
Northeastern	Mira Mesa	85
Northeastern	Miramar	19
Northeastern	Miramar Ranch North	8
Northeastern	Rancho Bernardo	32
Northeastern	Rancho Encantada	2
Northeastern	Rancho Penasquitos	34
Northeastern	Sabre Springs	9
Northeastern	San Pasqual	2
Northeastern	Scripps Ranch	15
Northern	Bay Ho	8
Northern	Bay Park	25
Northern	Clairemont Mesa East	44
Northern	Clairemont Mesa West	6
Northern	La Jolla	62
Northern	Mission Bay Park	24
Northern	Mission Beach	20
Northern	North Clairemont	35
Northern	Pacific Beach	113

The "Crimes_By_Division_Neighborhood" view shows that in the Central division, the East Village neighborhood reports the highest number of crimes with 147 incidents, followed by the Gaslamp Quarter with 69 incidents and Core-Columbia with 80 incidents. These data provide a clearer understanding of the geographic distribution of crimes at the neighborhood level within each division.

This view was created to offer a detailed analysis of crime distribution by division and neighborhood. It helps identify the neighborhoods most affected by crime in each division, which is critical for strategic law enforcement planning and efficient resource allocation.

CATEGORY 2: CRIME TYPES

Q1. What is the total number of violent crimes by type?

SELECT ibr_offense_description, COUNT(*) AS violent_crime_count

FROM Crime_Details

WHERE violent_crime = 1

GROUP BY ibr_offense_description;

ibr_offense_description	violent_crime_count
Aggravated Assault	144
Forcible Rape	11
Forcible Sodomy	1
Murder and Nonnegligent Manslaughter	3
Robbery	36
Sexual Assault With an Object	2

The most frequent violent crime is aggravated assault, with 144 cases, followed by robbery with 36 cases and forcible rape with 11 cases.

Q2. How many property crimes have been reported by category?

SELECT ibr_category, COUNT(*) AS property_crime_count

FROM Crime_Details

WHERE property_crime = 1

GROUP BY ibr_category;

ibr_category	property_crime_count
BURGLARY/BREAKING & ENTERING	125
LARCENY/THEFT OFFENSES	599
MOTOR VEHICLE THEFT	2

The most reported property crimes are larceny/theft offenses (599 cases), followed by burglary/breaking and entering (125 cases) and motor vehicle theft (2 cases).

Q3. What are the most frequent types of crimes?

SELECT ibr_offense_description, COUNT(*) AS crime_count

FROM Crime_Details

GROUP BY ibr_offense_description

ORDER BY crime_count DESC;

ibr_offense_description	crime_count ▼ 1
All Other Offenses	643
Destruction/Damage/Vandalism of Property	265
Theft From Motor Vehicle	258
All Other Larceny	250
Simple Assault	239
Motor Vehicle Theft	237
Drug/narcotic Violations	158
Aggravated Assault	144
Burglary/Breaking & Entering	125
Drunkenness	89
Impersonation	88
Drug Equipment Violations	79
Driving Under the Influence	57
Shoplifting	52
Stolen Property Offenses	46
Robbery	36
Credit Card/Automatic Teller Fraud	34
Weapon Law Violations	31
Intimidation	21
Theft of Motor Vehicle Parts/Accessories	18
Theft From Building	16
Trespass of Real Property	15

The most frequent type of crime is classified as "All Other Offenses" with 643 incidents, followed by destruction/damage/vandalism of property (265 incidents) and theft from motor vehicles (258 incidents).

Q4. View: Crime Frequency by Category

CREATE VIEW Crime_Frequency_By_Category AS

SELECT ibr_category, COUNT(*) AS crime_count

FROM Crime_Details

GROUP BY ibr_category;

ibr_category	crime_count
ARSON	12
ASSAULT OFFENSES	404
BURGLARY/BREAKING & ENTERING	125
COUNTERFEITING/FORGERY	10
DESTRUCTION/DAMAGE/VANDALISM OF PROPERTY	265
DRUG/NARCOTIC OFFENSES	237
EMBEZZLEMENT	6
EXTORTION/BLACKMAIL	2
FRAUD OFFENSES	131
GROUP "B" OFFENSES	816
HOMICIDE OFFENSES	3
ibr_category	1
KIDNAPING/ABDUCTION	5
LARCENY/THEFT OFFENSES	599
MOTOR VEHICLE THEFT	237
PROSTITUTION OFFENSES	7
ROBBERY	36
SEX OFFENSES, FORCIBLE	28
STOLEN PROPERTY OFFENSES	46
WEAPON LAW VIOLATIONS	31

ibr_category	crime_count
ARSON	12
ASSAULT OFFENSES	404
BURGLARY/BREAKING & ENTERING	125
COUNTERFEITING/FORGERY	10
DESTRUCTION/DAMAGE/VANDALISM OF PROPERTY	265
DRUG/NARCOTIC OFFENSES	237
EMBEZZLEMENT	6
EXTORTION/BLACKMAIL	2
FRAUD OFFENSES	131
GROUP "B" OFFENSES	816
HOMICIDE OFFENSES	3
ibr_category	1
KIDNAPING/ABDUCTION	5
LARCENY/THEFT OFFENSES	599
MOTOR VEHICLE THEFT	237
PROSTITUTION OFFENSES	7
ROBBERY	36
SEX OFFENSES, FORCIBLE	28
STOLEN PROPERTY OFFENSES	46
WEAPON LAW VIOLATIONS	31

The "Crime_Frequency_By_Category" view shows that "GROUP B OFFENSES" are the most frequent with 816 incidents, followed by larceny/theft offenses (599 incidents) and assault offenses (404 incidents). These data provide an overview of crimes by category to prioritize law enforcement resources and prevention initiatives.

This view was created to analyze the frequency of crimes by category (ibr_category) and identify the most problematic categories. It helps understand which offenses require specific attention and informs public safety policies.

Category 3: Temporal Statistics

Q1. Which days of the week have the most crimes?

SELECT day_of_week, COUNT(*) AS crime_count

FROM Time_Info

GROUP BY day_of_week

ORDER BY crime_count DESC;

day_of_week	crime_count 1
Samedi	543
Jeudi	452
Dimanche	417
Mardi	402
Mercredi	401
Lundi	399
Vendredi	386

Saturday has the highest number of crimes with 543 incidents, followed by Thursday with 452 incidents and Sunday with 417 incidents.

Q2. How many crimes are committed each month in 2023 ?

SELECT month, COUNT(*) AS crime_count

FROM Time_Info

WHERE year = 2023

GROUP BY month

ORDER BY crime_count DESC;

month	crime_count 1
Août	71
Janvier	64
Juin	64
Avril	60
Mai	60
Février	59
Mars	56
Juillet	55
Septembre	10

August recorded the highest number of crimes in 2023 with 71 incidents, followed by January and June with 64 incidents each.

Q3. How many crimes are committed each year?

SELECT year, COUNT(*) AS crime_count

FROM Time_Info

GROUP BY year;

year	crime_count
2020	848
2021	787
2022	866
2023	499

The year 2022 recorded the highest number of crimes with 866 incidents, followed by 2020 with 848 incidents, while 2023 shows a significant decrease with only 499 incidents so far.

Q4. View: Crimes by Year and Month for 2023

CREATE VIEW Crimes_By_Year_Month AS

SELECT year, month, COUNT(*) AS crime_count

FROM Time_Info

WHERE year = 2023

GROUP BY year, month;

year	month	crime_count
2023	Août	71
2023	Avril	60
2023	Février	59
2023	Janvier	64
2023	Juillet	55
2023	Juin	64
2023	Mai	60
2023	Mars	56
2023	Septembre	10

The "Crimes_By_Year_Month" view shows that in 2023, August had the highest number of crimes with 71 incidents, followed by January and June with 64 incidents each. These data enable more detailed temporal analysis to understand seasonal variations in crime.

This view was created to analyze crimes on a monthly and yearly basis for 2023. It provides temporal granularity that can help authorities identify high-risk periods and allocate resources accordingly.

Category 4: Crimes by Neighborhood

Q1. What is the number of crimes in each neighborhood?

SELECT neighborhood, COUNT(*) AS crime_count

FROM Location

INNER JOIN Crime_Details

ON Location.objectid = Crime_Details.objectid

GROUP BY neighborhood

ORDER BY crime_count DESC;

neighborhood	crime_count ▼ 1
East Village	147
Pacific Beach	113
Midway District	104
Mission Valley East	95
Mira Mesa	85
San Ysidro	84
North Park	80
Core-Columbia	80
Ocean Beach	73
University City	70

The East Village neighborhood reports the highest number of crimes with 147 incidents, followed by Pacific Beach with 113 incidents and Midway District with 104 incidents.

Q2. What are the violent crimes committed in each neighborhood?

SELECT Location.neighborhood, COUNT(*) AS violent_crime_count

FROM Crime_Details

INNER JOIN Location

ON Crime_Details.objectid = Location.objectid

WHERE Crime_Details.violent_crime = 1

GROUP BY Location.neighborhood

ORDER BY violent_crime_count DESC;

neighborhood	violent_crime_count	1
East Village	13	
Core-Columbia	8	
University City	7	
Logan Heights	7	
Hillcrest	7	
Otay Mesa West	6	
Lincoln Park	5	
Grantville	5	
Mission Valley West	5	
Clairemont Mesa East	5	
Pacific Beach	4	
North Park	4	
Barrio Logan	4	
Mission Valley East	4	
Castle	4	
Petco Park	4	
Valencia Park	4	
Colina Del Sol	3	
Midway District	3	
Southcrest	3	
Rancho Penasquitos	3	
Linda Vista	3	

The East Village neighborhood reports the highest number of violent crimes with 13 incidents, followed by Core-Columbia with 8 incidents, and University City and Logan Heights with 7 incidents each.

Q3. Which neighborhoods are most affected by property crimes?

SELECT neighborhood, COUNT(*) AS property_crime_count

FROM Location

INNER JOIN Crime_Details

ON Location.objectid = Crime_Details.objectid

WHERE property_crime = 1

GROUP BY neighborhood

ORDER BY property_crime_count DESC;

neighborhood	property_crime_count	1
Mission Valley East	35	
Midway District	33	
La Jolla	31	
University City	31	
Mira Mesa	28	
Pacific Beach	26	
North Park	25	
San Ysidro	24	
Hillcrest	22	
Kearney Mesa	20	
Mission Valley West	16	
East Village	15	
Carmel Valley	13	
Grantville	12	
Core-Columbia	12	
Clairemont Mesa East	11	
Ocean Beach	11	
North Clairemont	11	
Serra Mesa	10	
Linda Vista	10	
Rancho Bernardo	9	
Little Italy	9	

Console

The Mission Valley East neighborhood is the most affected by property crimes with 35 incidents, followed by Midway District with 33 incidents and La Jolla with 31 incidents.

Q4. View: Crimes by San Diego Neighborhood and Crime Type

CREATE VIEW Crimes_By_Neighborhood_Category AS

SELECT neighborhood, ibr_category, COUNT(*) AS crime_count

FROM Location

INNER JOIN Crime_Details

ON Location.objectid = Crime_Details.objectid

WHERE city = 'SAN DIEGO'

GROUP BY neighborhood, ibr_category

ORDER BY crime_count DESC;

neighborhood	ibr_category	crime_count ▾ 1
East Village	GROUP "B" OFFENSES	61
Pacific Beach	GROUP "B" OFFENSES	41
Gaslamp	GROUP "B" OFFENSES	41
Mission Valley East	LARCENY/THEFT OFFENSES	31
University City	LARCENY/THEFT OFFENSES	29
Ocean Beach	GROUP "B" OFFENSES	29
Mira Mesa	LARCENY/THEFT OFFENSES	27
East Village	ASSAULT OFFENSES	27
Midway District	GROUP "B" OFFENSES	26
Midway District	LARCENY/THEFT OFFENSES	25
Core-Columbia	GROUP "B" OFFENSES	24
San Ysidro	GROUP "B" OFFENSES	23
Pacific Beach	LARCENY/THEFT OFFENSES	21
Mission Valley East	GROUP "B" OFFENSES	21
Mira Mesa	GROUP "B" OFFENSES	20
East Village	DRUG/NARCOTIC OFFENSES	20
North Park	GROUP "B" OFFENSES	18
Hillcrest	LARCENY/THEFT OFFENSES	18
San Ysidro	LARCENY/THEFT OFFENSES	17
Core-Columbia	ASSAULT OFFENSES	17
Barrio Logan	GROUP "B" OFFENSES	16
North Park	LARCENY/THEFT OFFENSES	16
La Jolla	LARCENY/THEFT OFFENSES	16
Otay Mesa West	GROUP "B" OFFENSES	16
Otay Mesa	MOTOR VEHICLE THEFT	16

The "Crimes_By_Neighborhood_Category" view shows that the East Village neighborhood is the most affected with 61 incidents in the "GROUP B OFFENSES" category, followed by Pacific Beach with 41 incidents and Gaslamp with 41 incidents for the same category. This analysis by neighborhood and crime type helps identify specific crime types impacting each area.
This view was created to provide a detailed analysis of crimes by category (ibr_category) in each neighborhood. It helps understand specific crime trends by area and guides law enforcement strategies to address the unique needs of each community effectively.

Category 5: Administrative Crime Details

Q1. What is the number of crimes by legal code section?

SELECT code_section, COUNT(*) AS crime_count

FROM Administrative_Details

GROUP BY code_section

ORDER BY crime_count DESC;

code_section	crime_count ▼ 1
5150 WI MENTAL DISORDER 72 HR OBSERVATION ||	270
10851 (A) VC TAKE VEHICLE W/O OWNER'S CONSENT/VEHI...	225
459 PC BURGLARY (VEHICLE) (F) ||	174
594 (B)(1) PC VANDALISM ($400 OR MORE) (F) ||	145
488 PC PETTY THEFT(All Other Larceny) (M) ||	140
594 (B)(2)(A) PC VANDALISM [$400 OR LESS] (M) ||	104
487 (A) PC GRAND THEFT:MONEY/LABOR/PROPERTY (F) ||...	95
647 (F) PC DRUNK IN PUBLIC: ALCOHOL, DRUGS, COMBO ...	89
459 PC BURGLARY (COMMERCIAL) (F) ||	70
11364 HS POSS CONTROLLED SUBS PARAPHERNALIA (M) ||...	60
243 (E)(1) PC BATTERY:SPOUSE/EX SPOUSE/DATE/ETC (M...	58
11550 (A) HS USE/UNDER INFL OF CONTROLLED SUBS (M)...	55
459 PC BURGLARY (RESIDENTIAL) (F) ||	54
530.5 (a) PC GET CREDIT/ETC OTHER'S ID (F) ||	53
488 PC PETTY THEFT(from Veh) (M) ||	50
242 PC SIMPLE BATTERY (M) ||	50
11377 (A) HS POSSESS CONTROLLED SUBSTANCE (M) ||	47
273.5 (A) PC SPOUSAL/COHABITANT ABUSE WITH MINOR I...	46
BW-F ZZ FELONY BENCH WARRANT (OUR AGENCY) ||	45
243 (A) PC BATTERY ON PERSON (M) ||	45
245 (A)(1) PC ASSAULT W/DEADLY WEAPON:NOT F/ARM (F...	41
148 (A)(1) PC OBSTRUCT/RESIST PEACE OFCR/EMER MED ...	34

The legal code section "5150 WI MENTAL DISORDER 72 HR OBSERVATION" records the highest number of crimes with 270 incidents, followed by "10851 (A) VC TAKE VEHICLE W/O OWNER'S CONSENT" with 225 incidents, and "459 PC BURGLARY (VEHICLE)" with 174 incidents.

Q2. What are the most frequent legal code sections in violent crimes?

SELECT code_section, COUNT(*) AS violent_crime_count

FROM Administrative_Details

INNER JOIN Crime_Details

ON Administrative_Details.objectid = Crime_Details.objectid

WHERE Crime_Details.violent_crime = 1

GROUP BY code_section

ORDER BY violent_crime_count DESC;

code_section	violent_crime_count ▾ 1
245 (A)(1) PC ASSAULT W/DEADLY WEAPON:NOT F/ARM (F...	41
211 PC ROBBERY (F) ||	33
245 (A)(4) PC ADW WITH FORCE:POSSIBLE GBI (F) ||	18
417 (A)(1) PC EXHIBIT DEADLY WEAPON OTHER THAN FIR...	15
245 (A)(1) PC ASSAULT W/DEADLY WEAPON:NOT F/ARM (M...	14
243 (D) PC BATTERY W/SER BODILY INJURY (F) ||	7
273.5 (A) PC SPOUSAL/COHABITANT ABUSE WITH SERIOUS...	7
245 (A)(2) PC ADW:ASSAULT WITH FIREARM ON PERS (F)...	6
245 (A)(4) PC ADW WITH FORCE:POSSIBLE GBI (M) ||	6
273 A (A) PC WILLFUL CRUELTY TO CHILD: WITH INJURY...	5
261 (A)(2) PC RAPE BY FORCE/FEAR (F) ||	5
368 (B)(1) PC CAUSE HARM/DEATH OF ELDER /DEPENDENT...	4
417 (A)(2) PC EXHIBIT FIREARM (M) ||	4
215 (A) PC CARJACKING (F) ||	3
187 (A) PC MURDER (F) ||	3
417(A)(2)(B) PC EXHBT FIREARM THRTNG MANNER (M) ||...	2
273.5 (A) PC SPOUSAL/COHABITANT ABUSE WITH SERIOUS...	2
220 (A) PC ASSAULT W/INTENT TO COMMIT RAPE (F) ||	2
245 (A)(2) PC ADW:ASSAULT WITH FIREARM ON PERS (F)...	2
244 PC ASSAULT WITH CAUSTIC CHEMICAL (F) ||	1
20001 (B)(1) VC HIT AND RUN RESULTING IN INJURY(IB...	1

The legal code section "245 (A)(1) PC ASSAULT W/DEADLY WEAPON: NOT FIREARM" is the most frequent in violent crimes with 41 incidents, followed by "211 PC ROBBERY" with 33 incidents and "245 (A)(4) PC ADW W/FORCE: POSSIBLE GBI" with 18 incidents.

Q3. List of crimes with their administrative details (code section, NIBRS)

SELECT Crime_Details.case_number, Administrative_Details.code_section, Administrative_Details.nibrs_uniq

FROM Crime_Details

INNER JOIN Administrative_Details

ON Crime_Details.objectid = Administrative_Details.objectid;

case_number	code_section	nibrs_uniq
21032576	148 (A)(1) PC OBSTRUCT/RESIST PEACE OFCR/EMER MED ...	2893344_90Z
22701933	459 PC BURGLARY (VEHICLE) (F) ||	2959571_23F
21020993	273.5 (A) PC SPOUSAL/COHABITANT ABUSE WITH MINOR I...	2872072_13B_2
22041849	273 A (A) PC WILLFUL CRUELTY TO CHILD: WITH INJURY...	3026521_13A_2
21001415	10851 (A) VC OTHER AGENCY VEHICLE THEFT/RECOVERY (...	2836797_280
23009256	10851 (A) VC TAKE VEHICLE W/O OWNER'S CONSENT/VEHI...	3074283_240_1
20007076	BW-F ZZ FELONY BENCH WARRANT (OUR AGENCY) ||	147118_90Z
22039685	211 PC ROBBERY (F) ||	3022336_120
21017434	11550 (A) HS USE/UNDER INFL OF CONTROLLED SUBS (M)...	2865337_35A
22050605	242 PC SIMPLE BATTERY (M) ||	3043773_13B_2
22028133	29800 (A)(1) PC FELON/ADDICT/POSSESS/ETC FIREARM (...	2999687_520
20707004	488 PC PETTY THEFT(All Other Larceny) (M) ||	2796482_23H
20704084	487 (A) PC GRAND THEFT (Theft From Mot Veh) (F) ||...	179908_23F
21046166	2800.1 (A) VC EVADING PEACE OFFICER (M) || 22349 (...	2918538_90Z
23026755	10851 (A) VC OTHER AGENCY VEHICLE THEFT/RECOVERY (...	3108927_280
20700486	487 (A) PC GRAND THEFT (Theft From Mot Veh) (F) ||...	140765_23F
20009409	594 (B)(1) PC VANDALISM ($400 OR MORE) (F) ||	150856_290
20001306	459.5 PC SHOPLIFTING (M) ||	137923_23C
22303282	10851 (A) VC TAKE VEHICLE W/O OWNER'S CONSENT/VEHI...	2995269_240_1
22044016	488 PC PETTY THEFT(All Other Larceny) (M) ||	3030729_23H
22200647	23152 (B) VC DUI ALC/0.08 PERCENT (M) || 23152 (A)...	2955007_90D
22020077	459 PC BURGLARY (RESIDENTIAL) (F) ||	2984363_220
22020225	459 PC BURGLARY (VEHICLE) (F) ||	181067_23F

Console

This query provides a detailed list of crimes with their administrative details, including the case number (case_number), the applicable legal code section (code_section), and the unique NIBRS identifier. For instance, case 21032576 is associated with obstructing/resisting law enforcement (section 148 (A)(1) PC), while case 22701093 pertains to vehicle burglary (section 459 PC BURGLARY).

Q4 View: Crimes by Legal Code Section

```
CREATE VIEW Crimes_By_Code_Section AS

SELECT Administrative_Details.code_section, COUNT(*) AS crime_count

FROM Administrative_Details

JOIN Crime_Details ON Administrative_Details.objectid = Crime_Details.objectid

GROUP BY Administrative_Details.code_section

ORDER BY crime_count DESC;
```

code_section	crime_count ▾ 1
5150 WI MENTAL DISORDER 72 HR OBSERVATION ||	270
10851 (A) VC TAKE VEHICLE W/O OWNER'S CONSENT/VEHI...	225
459 PC BURGLARY (VEHICLE) (F) ||	174
594 (B)(1) PC VANDALISM ($400 OR MORE) (F) ||	145
488 PC PETTY THEFT(All Other Larceny) (M) ||	140
594 (B)(2)(A) PC VANDALISM [$400 OR LESS] (M) ||	104
487 (A) PC GRAND THEFT:MONEY/LABOR/PROPERTY (F) ||...	95
647 (F) PC DRUNK IN PUBLIC: ALCOHOL, DRUGS, COMBO ...	89
459 PC BURGLARY (COMMERCIAL) (F) ||	70
11364 HS POSS CONTROLLED SUBS PARAPHERNALIA (M) ||...	60
243 (E)(1) PC BATTERY:SPOUSE/EX SPOUSE/DATE/ETC (M...	58
11550 (A) HS USE/UNDER INFL OF CONTROLLED SUBS (M)...	55
459 PC BURGLARY (RESIDENTIAL) (F) ||	54
530.5 (a) PC GET CREDIT/ETC OTHER'S ID (F) ||	53
488 PC PETTY THEFT(from Veh) (M) ||	50
242 PC SIMPLE BATTERY (M) ||	50
11377 (A) HS POSSESS CONTROLLED SUBSTANCE (M) ||	47
273.5 (A) PC SPOUSAL/COHABITANT ABUSE WITH MINOR I...	46
243 (A) PC BATTERY ON PERSON (M) ||	45
BW-F ZZ FELONY BENCH WARRANT (OUR AGENCY) ||	45
245 (A)(1) PC ASSAULT W/DEADLY WEAPON:NOT F/ARM (F...	41
148 (A)(1) PC OBSTRUCT/RESIST PEACE OFCR/EMER MED ...	34

The "Crimes_By_Code_Section" view shows that the legal code section "5150 WI MENTAL DISORDER 72 HR OBSERVATION" is the most frequent with 270 incidents, followed by "10851 (A) VC TAKE VEHICLE W/O OWNER'S CONSENT" with 225 incidents, and "459 PC BURGLARY (VEHICLE)" with 174 incidents. These data provide a precise analysis of offenses based on their legal references.
This view was created to centralize and analyze offenses by their legal code sections (code_section). It helps to understand which types of offenses are most common, guiding law enforcement priorities and legislative reforms.

Category 6: Geocoding and Division

Q1. How does the crime count differ between matched (M), unmatched (U), and tentative (T) geocode statuses across all divisions?

SELECT geocode_status, COUNT(*) AS total_crime_count

FROM Geocode_Info

GROUP BY geocode_status

ORDER BY total_crime_count DESC;

geocode_status	total_crime_count ▼ 1
M	2909
U	73
T	18
g	1

The majority of crimes (2,909) have a geocoding status of "M" (matched), while 73 crimes are unmatched ("U") and 18 have a tentative ("T") status.

Q2. What is the geocoding status of crimes in each division?

SELECT division, geocode_status, COUNT(*) AS crime_count

FROM Location

INNER JOIN Geocode_Info

ON Location.objectid = Geocode_Info.objectid

GROUP BY division, geocode_status

ORDER BY crime_count DESC;

division	geocode_status	crime_count ▼ 1
Central	M	573
Western	M	481
Northern	M	398
Mid-City	M	342
Eastern	M	329
Southeastern	M	249
Southern	M	226
Northeastern	M	210
Northwestern	M	84
Central	U	21
Unknown	M	17
Western	U	13
Northern	U	11
Mid-City	U	7
Eastern	U	5
Unknown	U	5
Northeastern	U	4
Southern	T	4
Southeastern	U	3
Northern	T	3
Western	T	3
Southern	U	3
Console	T	2

In the Central division, 573 crimes have a geocoding status of "M" (matched), followed by the Western division with 481 incidents.

Q3. Which divisions have the highest proportion of unmatched ("U") or tentative ("T") geocoding statuses?

*SELECT division, SUM(CASE WHEN geocode_status = 'U' THEN 1 ELSE 0 END) * 100.0 / COUNT(*) AS unmatched_percentage, SUM(CASE WHEN geocode_status = 'T' THEN 1 ELSE 0 END) * 100.0 / COUNT(*) AS tentative_percentage*

FROM Geocode_Info

INNER JOIN Location

ON Location.objectid=Geocode_Info.objectid

GROUP BY division

ORDER BY unmatched_percentage DESC, tentative_percentage DESC;

division	unmatched_percentage 1	tentative_percentage 2
Unknown	22.72727	0.00000
Central	3.52349	0.33557
Northern	2.66990	0.72816
Western	2.61569	0.60362
Mid-City	2.00000	0.28571
Northeastern	1.85185	0.92593
Eastern	1.49254	0.29851
Southern	1.28755	1.71674
Southeastern	1.18110	0.78740
Northwestern	1.17647	0.00000

The "Unknown" division has the highest proportion of unmatched ("U") statuses at 22.72%, while the "Northern" division has the highest proportion of tentative ("T") statuses at 0.73%.

Q4 View: Crimes Count By Geocode Status

CREATE VIEW Crime_Count_By_Geocode_Status AS

SELECT division, geocode_status, COUNT(*) AS crime_count

FROM Location

INNER JOIN Geocode_Info

ON Location.objectid = Geocode_Info.objectid

GROUP BY division, geocode_status

ORDER BY crime_count DESC;

division	geocode_status	crime_count ▾ 1
Central	M	573
Western	M	481
Northern	M	398
Mid-City	M	342
Eastern	M	329
Southeastern	M	249
Southern	M	226
Northeastern	M	210
Northwestern	M	84
Central	U	21
Unknown	M	17
Western	U	13
Northern	U	11
Mid-City	U	7
Eastern	U	5
Unknown	U	5
Northeastern	U	4
Southern	T	4
Southeastern	U	3
Northern	T	3
Western	T	3
Southern	U	3

Console

The "Crime_Count_By_Geocode_Status" view shows that the Central division recorded the highest number of crimes with a "M" (matched) status at 573 incidents, followed by the Western division with 481 incidents and the Northern division with 398 incidents. This view provides a detailed perspective on the distribution of crimes by geocode status within each division.
This view was created to analyze crimes based on their geocoding status (geocode_status) in each division. It helps identify divisions where location data are complete (matched) and where improvements are needed for more accurate geolocation.

Conclusion

The analysis of the geographic and temporal characteristics of violent crimes in San Diego highlights important trends that can guide public safety strategies. From a geographic perspective, certain divisions, such as Central and Western, have high concentrations of crimes, with neighborhoods like East Village and Pacific Beach requiring targeted interventions. This information helps prioritize police resources in the most affected areas. Temporally, crimes are more frequent on Saturdays and during the summer, which coincides with periods of increased social activity. These data suggest that enhanced patrols and awareness campaigns could be particularly effective during these times. Regarding crime types, violent assaults and thefts are among the most common offenses. This calls for specific prevention programs to reduce these incidents, such as community initiatives or efforts to limit access to weapons in vulnerable neighborhoods. The analysis of geocoding statuses reveals that most crimes are accurately located, although some divisions still show gaps in data precision. Improving the collection and management of geographic data would allow for better resource allocation.In summary, these geographic and temporal characteristics of violent crimes provide essential levers for adapting public safety strategies. They enable the targeting of critical areas, periods, and crime types while supporting policymakers with reliable data to effectively reduce crime in San Diego.