

# Los Angeles Crime Data

**Team:**

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# Data Cleaning w/ Jupyter Notebook

## 1) Dropped unnecessary columns

```
# drop unnesesary columns  
df = df.drop(['DR_NO', 'Date Rptd', 'Rpt Dist No', 'Part 1-2', 'Mocodes', 'Vict Descent', 'Premis Cd', 'Weapon Used Cd', 'Status', 'Crm Cd 2', 'Crm Cd 3', 'Crm Cd 4'], axis=1)
```

[10]

Python

## 2) Cleaned Dataset visualized:

	DATE OCC	TIME OCC	AREA	AREA NAME	Crm Cd	Crm Cd Desc	Vict Age	Vict Sex	Premis Desc	Weapon Desc	Status Desc	Crm Cd 1	LOCATION	Cross Street	LAT	LON
0	01/08/2020 12:00:00 AM	2230	3	Southwest	624	BATTERY - SIMPLE ASSAULT	36	F	SINGLE FAMILY DWELLING	STRONG-ARM (HANDS, FIST, FEET OR BODILY FORCE)	Adult Other	624.0	1100 W 39TH PL	NaN	34.0141	-118.2978
1	01/01/2020 12:00:00 AM	330	1	Central	624	BATTERY - SIMPLE ASSAULT	25	M	SIDEWALK	UNKNOWN WEAPON/OTHER WEAPON	Invest Cont	624.0	700 S HILL ST	NaN	34.0459	-118.2545
3	01/01/2020 12:00:00 AM	1730	15	N Hollywood	745	VANDALISM - MISDEAMEANOR (\$399 OR UNDER)	76	F	MULTI-UNIT DWELLING (APARTMENT, DUPLEX, ETC)	NaN	Invest Cont	745.0	5400 CORTEEN PL	NaN	34.1685	-118.4019
4	01/01/2020 12:00:00 AM	415	19	Mission	740	VANDALISM - FELONY (\$400 & OVER, ALL CHURCH VA...	31	X	BEAUTY SUPPLY STORE	NaN	Invest Cont	740.0	14400 TITUS ST	NaN	34.2198	-118.4468
5	01/01/2020 12:00:00 AM	30	1	Central	121	RAPE, FORCIBLE	25	F	NIGHT CLUB (OPEN EVENINGS ONLY)	UNKNOWN WEAPON/OTHER WEAPON	Invest Cont	121.0	700 S BROADWAY	NaN	34.0452	-118.2534
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
752906	05/25/2023 12:00:00 AM	1100	15	N Hollywood	662	BUNCO, GRAND THEFT	25	M	OTHER PREMISE	NaN	Invest Cont	662.0	5300 DENNY AV	NaN	34.1667	-118.3643
752907	01/26/2023 12:00:00 AM	1800	16	Foothill	740	VANDALISM - FELONY (\$400 & OVER, ALL CHURCH VA...	23	M	VEHICLE, PASSENGER/TRUCK	NaN	Invest Cont	740.0	12500 BRANFORD ST	NaN	34.2466	-118.4054
752908	03/22/2023 12:00:00 AM	1000	16	Foothill	230	ASSAULT WITH DEADLY WEAPON, AGGRAVATED ASSAULT	25	F	SIDEWALK	STRONG-ARM (HANDS, FIST, FEET OR BODILY FORCE)	Invest Cont	230.0	12800 FILMORE ST	NaN	34.2790	-118.4116
752909	04/12/2023 12:00:00 AM	1630	12	77th Street	230	ASSAULT WITH DEADLY WEAPON, AGGRAVATED ASSAULT	29	M	LAUNDROMAT	UNKNOWN WEAPON/OTHER WEAPON	Invest Cont	230.0	6100 S VERMONT AV	NaN	33.9841	-118.2915
752910	03/05/2023 12:00:00 AM	900	9	Van Nuys	745	VANDALISM - MISDEAMEANOR (\$399	53	F	MULTI-UNIT DWELLING (APARTMENT, DUPLEX,	NaN	Invest Cont	745.0	14500 HARTLAND	NaN	34.1951	-118.4487

# SQLite, HTML, JS, & CSS

First, we imported our cleaned dataset into an SQLite database

## HTML

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <meta http-equiv="X-UA-Compatible" content="ie=edge">
    <title>LA Crime Dashboard</title>

    <!-- Bootstrap Head Dependency -->
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css" rel="stylesheet">

    <!-- Leaflet Dependency #1 -->
    <link rel="stylesheet" href="https://unpkg.com/leaflet@1.9.4/dist/leaflet.css"
    integrity="sha256-p4NxAoJBhIIN+hmNHrzRCf9tD/miZYoHSobTRR9BMY="
    crossorigin="">

    <!-- Leaflet Dependency #2 -->
    <script src="https://unpkg.com/leaflet@1.9.4/dist/leaflet.js"
    integrity="sha256-20nQChB9coBqIj3ZRGuk2/Z9VM+kNiyxNV1vT1ZBo="
    crossorigin=""></script>

    <!-- Leaflet heatmap plugin-->
    <script type="text/javascript" src="leaflet-heat.js"></script>

    <!-- Link to local CSS file -->
    <!-- sets the map height in CSS -->
    <link rel="stylesheet" href="style.css">

    <!-- Plotly Dependency -->
    <script src="https://cdn.plot.ly/plotly-2.26.0.min.js" charset="utf-8"></script>

  </head>

  <body>
    <!-- Background Gradient -->
    <div class="gradient-background">
```

## Javascript

```
// Import data from local sqlite server (Run the python file first)

// layer lists
let stationMarkers = []

// let heatmap = []
// let cityArea = []

// Define variables for our tile layers.
let street = L.tileLayer('https://{s}.tile.openstreetmap.org/{z}/{x}/{y}.png', {
  attribution: '&copy; <a href="https://www.openstreetmap.org/copyright">OpenStreetMap'
});

let topo = L.tileLayer('https://{s}.tile.opentopomap.org/{z}/{x}/{y}.png', {
  attribution: 'Map data: &copy; <a href="https://www.openstreetmap.org/copyright">OpenStreetMap'
});

let stationLayer = L.layerGroup(stationMarkers);
let heatLayer = new L.LayerGroup();
let areaLayer = new L.LayerGroup();

// Only one base layer can be shown at a time.
let baseMaps = {
  Street: street,
  Topography: topo
};

let overlayMaps = {
  LAPD: stationLayer,
  Crime: heatLayer,
  Districts: areaLayer
};

// Create the map object
var map = L.map('map', {
```

## CSS

```
#map { height: 550px; }
/*
body {
  margin: 0;
  padding: 0;
  height: 100vh;
  overflow: hidden;
} */

.gradient-background {
  background: linear-gradient(to top, #3498db, #ffffff);
  height: 100%;
}

.shadowed-box {
  /* width: 50px;
  height: 50px;
  background-color: #fff;
  border: 1px solid #ddd; */
  /* Add a shadow */
  box-shadow: 5px 5px 7px 0 #000;
}

.info-box {
  background: linear-gradient(to top, #8dd1ff, #ffffff); /* Gradient background */
  border-radius: 10px; /* Rounded corners */
  padding: 15px; /* Spacing inside the rectangle */
  width: 900px; /* Width of the rectangle */
  margin: 0 auto; /* Center the rectangle horizontally */
  box-shadow: 0 5px 5px #000; /* Optional shadow */
}

.info-box-map {
  background: linear-gradient(to top, #8dd1ff, #ffffff); /* Gradient background */
  border-radius: 10px; /* Rounded corners */
  padding: 0px; /* Spacing inside the rectangle */
  width: 1300px; /* Width of the rectangle */
  margin: 0 auto; /* Center the rectangle horizontally */
  box-shadow: 0 5px 5px #000; /* Optional shadow */
}
```