



San Francisco Incidents Analysis Project

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Business Task

1. What are the incidents that occurred the most within the four years period?
2. Where are the neighborhoods that most of the incidents occurred?
3. Are the incidents more of emergency or non-emergency?
4. When and where will be better to increase the number of police officer to improve the safety?

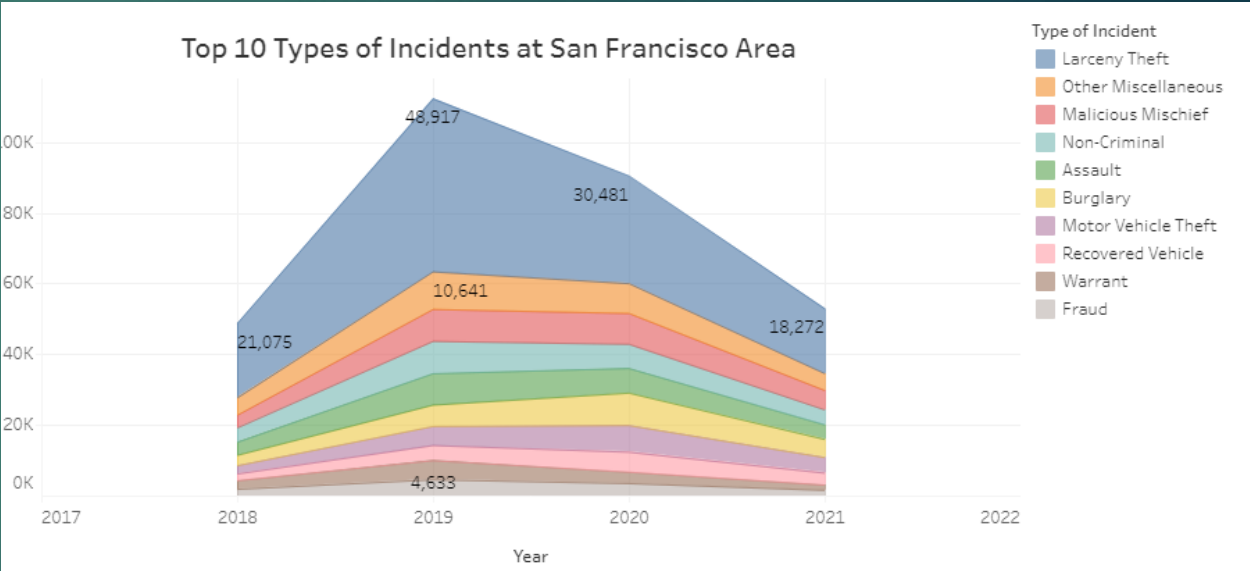
Tool

- ▶ Excel
 - ▶ Changing the date format to YYYY:MM:DD HH:MM
 - ▶ Filling the empty cells with 0
- ▶ MySQL
 - ▶ Import, clean, process, extract, and export data
 - ▶ Analyze data with different conditions
- ▶ Tableau
 - ▶ Create multiple visualizations
 - ▶ Created dashboard

Analysis Phase

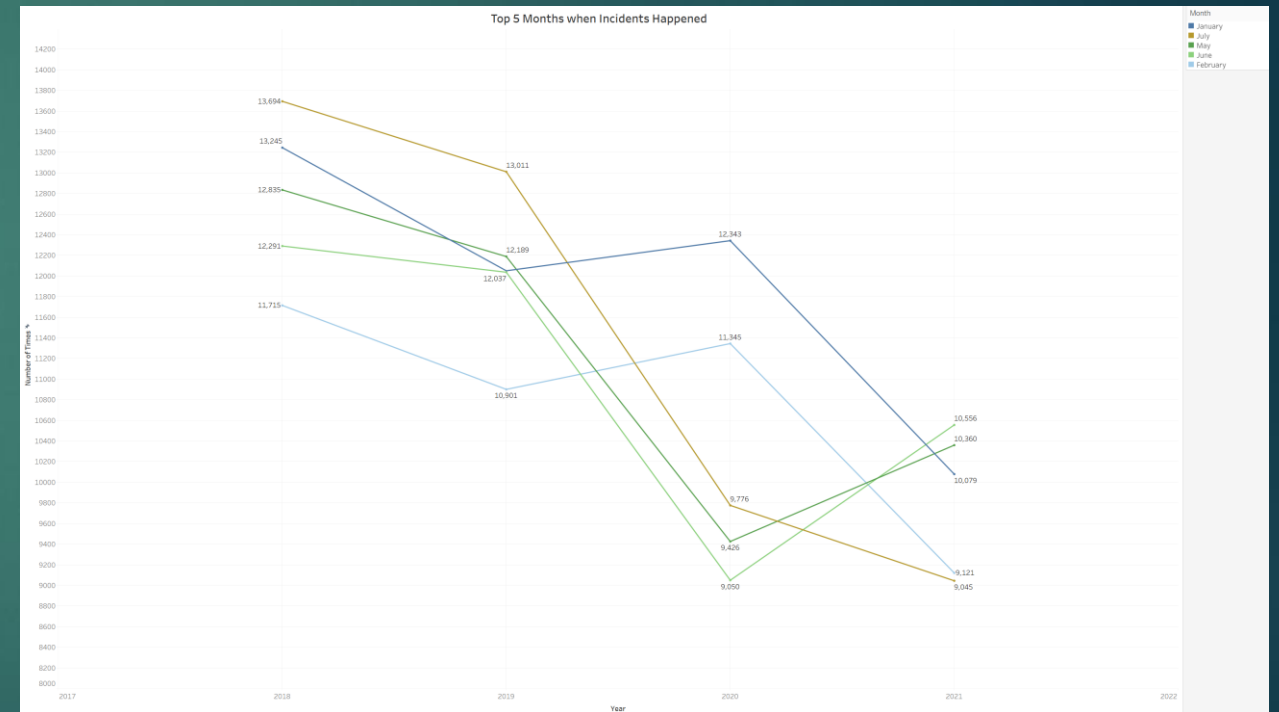
- ▶ Data from January 2018 to July 2021
 - ▶ Incidents base on each year and month
 - ▶ Incidents base on month
 - ▶ Incidents base on day of week
 - ▶ Incidents base on latitude and longitude
 - ▶ Incidents base on emergency or non-emergency

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- Top 10 Types of Incidents at San Francisco Area**
- | Type of Incident | 2018 | 2019 | 2020 | 2021 |
|---------------------|--------|--------|--------|--------|
| Larceny Theft | 21,075 | 48,917 | 30,481 | 18,272 |
| Other Miscellaneous | - | 10,641 | - | - |
| Malicious Mischief | - | - | - | - |
| Non-Criminal | - | - | - | - |
| Assault | - | - | - | - |
| Burglary | - | - | - | - |
| Motor Vehicle Theft | - | - | - | - |
| Recovered Vehicle | - | - | - | - |
| Warrant | - | 4,633 | - | - |
| Fraud | - | - | - | - |



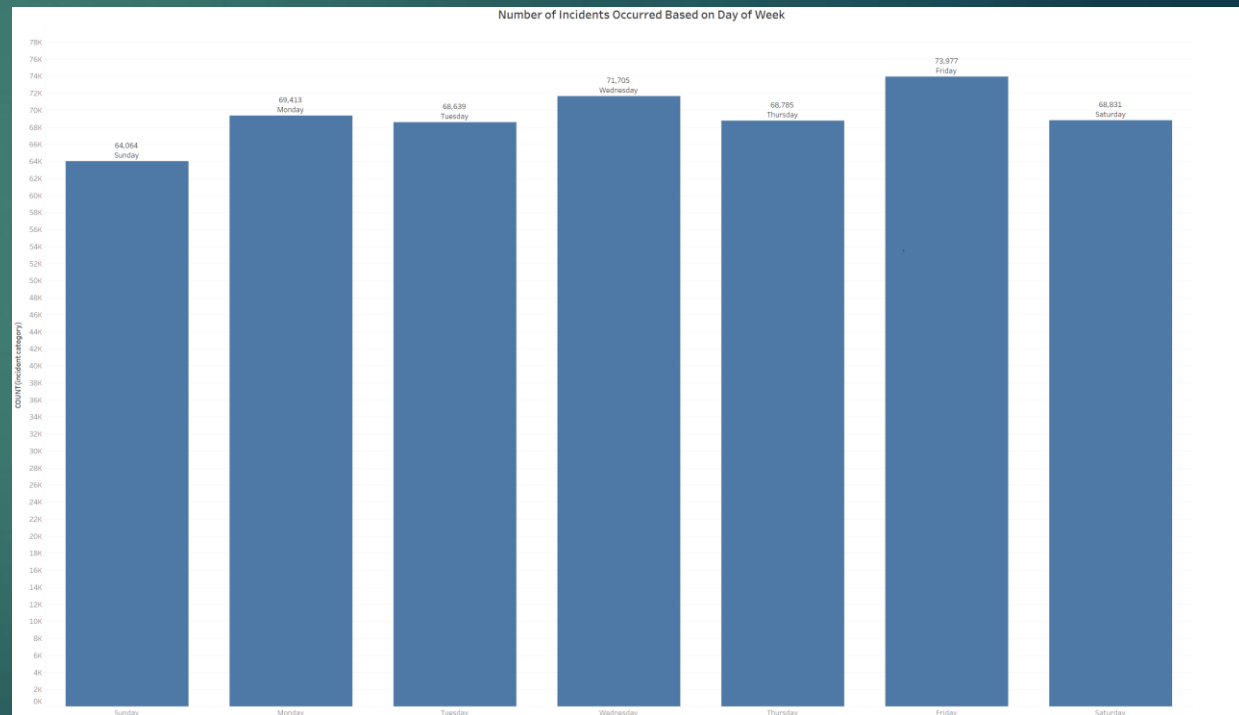
Incidents base on month

- ▶ Incidents occurred January 2018 to July 2021
- ▶ Exclude August – December due to data only goes to July
- ▶ Most Occurred vs. Least Occurred Month 2018:
 - ▶ July vs. February
- ▶ Most Occurred vs. Least Occurred Month 2021:
 - ▶ June vs. July



Incidents base on day of week

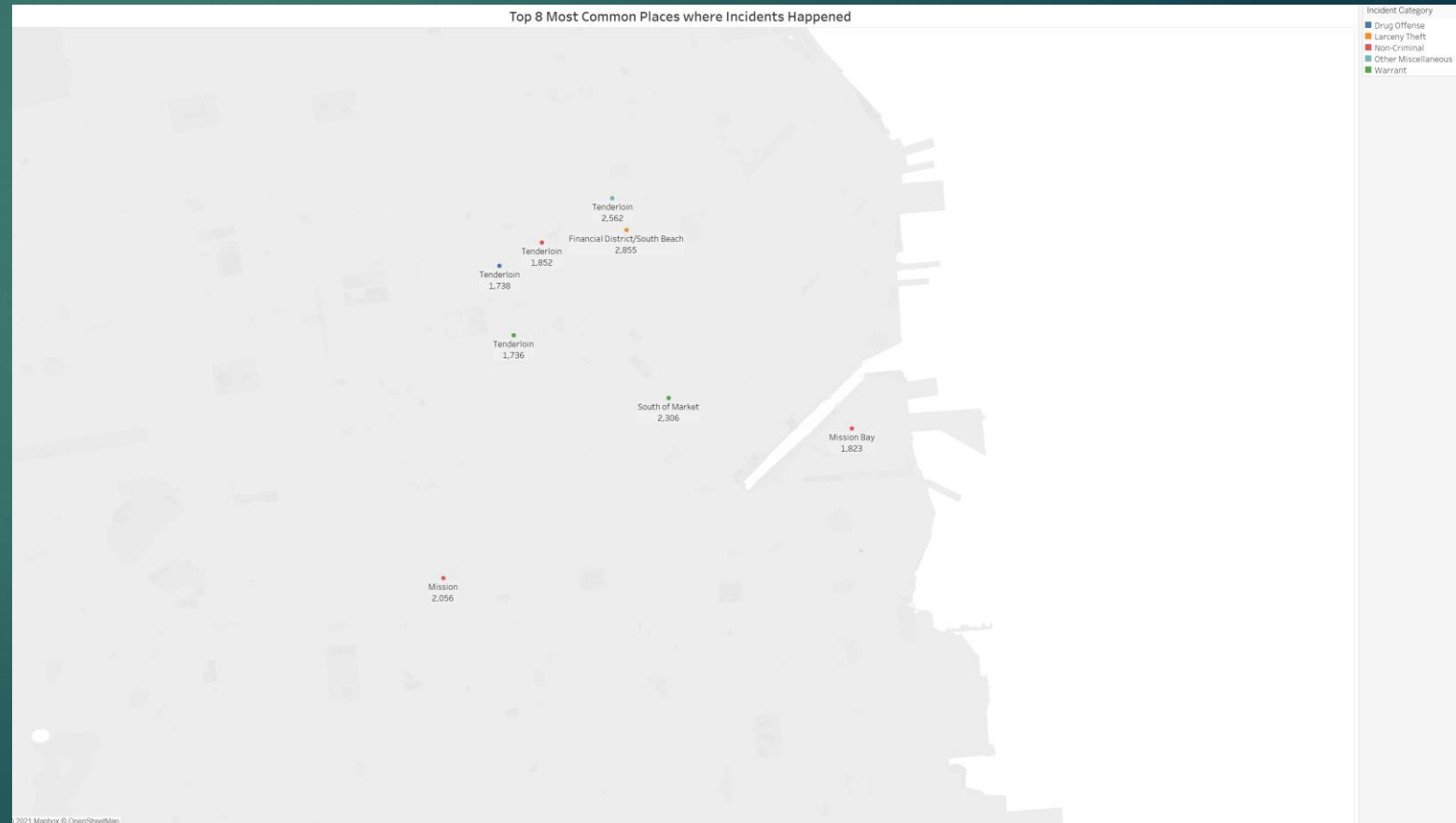
- Day of Week from Jan 2018 to July 2021
 - Most incidents occurred: Friday
 - Least incidents occurred: Sunday
- Difference between Most and Least
 - 9,913 incidents



Incidents base on latitude and longitude

- Top neighbors where incidents occurred:

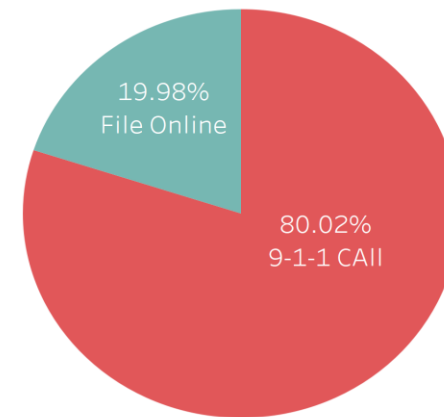
- Financial District/South Beach
- Tenderloin
- South of Market
- Mission
- Tenderloin
- Misson Bay



Incidents base on emergency or non-emergency

- Emergency vs. Non-Emergency
 - 80.02% vs. 19.98%

Percentage of the Rport is Filed Online or 9-1-1 Call



Recommendation for business task

- ▶ Increase the rate of patrols and police officers
 - ▶ Neighborhoods such as Financial District/South Beach, Tenderloin, South of Market Mission, and Mission Bay
 - ▶ Months such as August to December to get a better analysis through out the year of 2018-2021
 - ▶ Most of the incident's reports are reported through 9-1-1 calls

Recommendation on data collecting

1. Record the time duration of the report and when the officer is onsite
2. Record the time duration when the incidents are solved or on going
3. Specify what type of warrants