



# Crime Data Explorer

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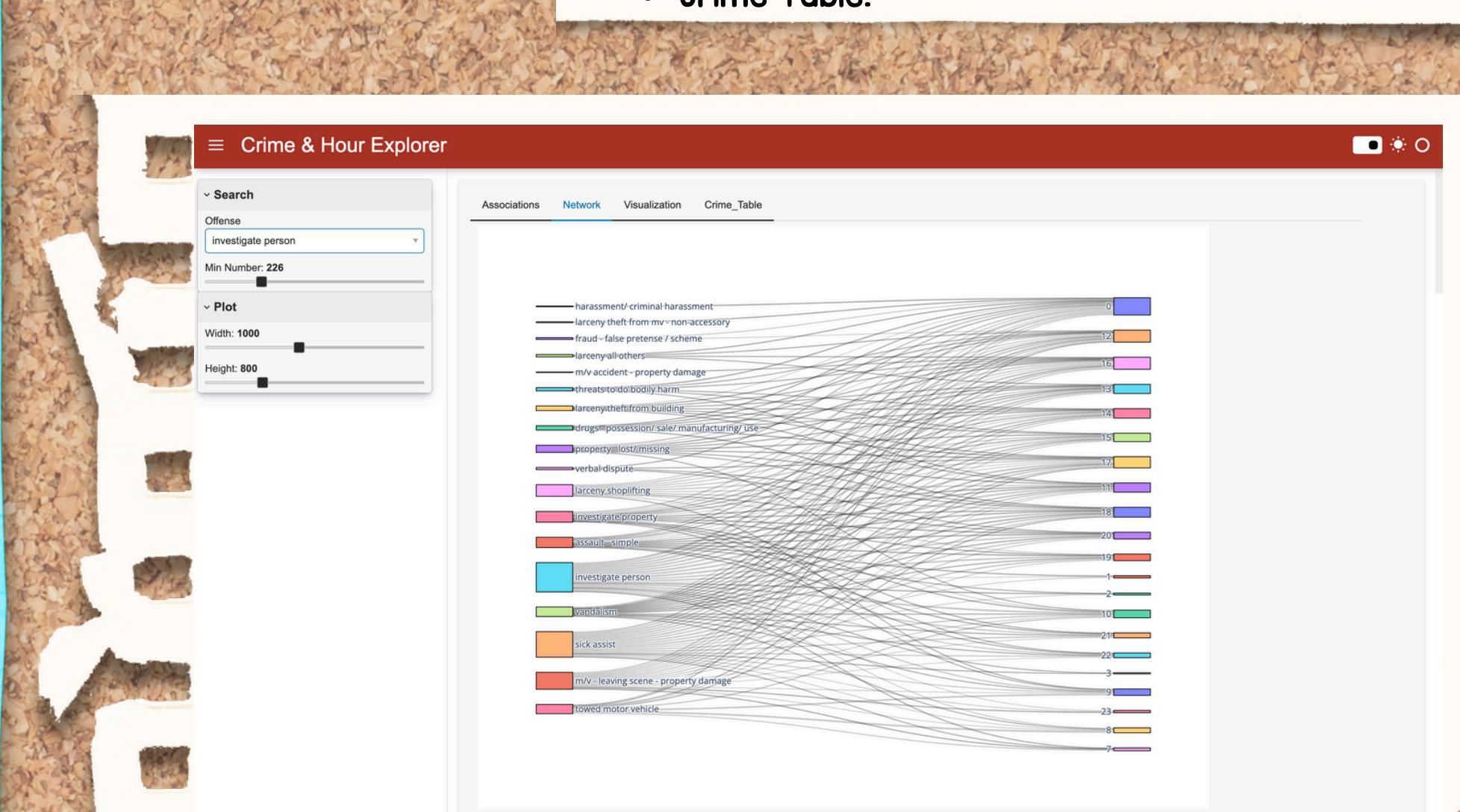
This Boston Crime of year of 2023 Data Explorer dashboard provides an interactive tool to analyze crime patterns based on hourly trends and offense types. It includes several key features to enhance data exploration:

- Search Bar & Plot Section
- Association Table
- Sankey Diagram
- Matplotlib Visualization
- Crime Table:

01

## Sankey Diagram

The Sankey Diagram in the dashboard visualizes the relationship between different crime types and their occurrences over time in hour. It represents how offenses flow, with each crime type as a source node and the hour of occurrence as a target node. The thickness of the connecting lines indicates the frequency of incidents. Users can change the Sankey Diagram by changing the values of Min num slider and different crime types in the Search section. It can help us to detect and understand the distribution throughout the day.



02

## Matplotlib Visualization

The Matplotlib Visualization in this dashboard includes a bar chart and a line plot to display crime trends by hour. The bar chart shows crime frequency per hour, while the line plot highlights trends over time. Users can simply change the number of min slider and crime types to change the visualization simultaneously. Making it easier to spot peak crime periods.

03

## Crime Table

The Crime Table presents structured crime data, displaying the number of incidents per hour and sorting them in the ascending order. It also allows users to easily browse and analyze crime frequencies, supporting data-driven insights.

# index	HOUR	crime_count
0 0		1,140
1 1		340
2 2		301
3 3		233
4 7		280
5 8		461
6 9		607
7 10		806
8 11		779
9 12		813