

Uncovering Insights: Analyzing Food Inspection Data

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Problem

Big Idea

- Find the most common violation types and whether surrounding areas have influence over those violation types.

Problem

- Create solution to understand why certain areas have more violations than others.

Why Care

- Research can help individuals understand their health, their community, and families in various ways.
- Especially the people who are living in areas with the most violations.

Choosing the Data

- Searched and determined data that would engage us to think of interesting questions regarding specific data
- Food inspection data fulfills our choice because:
- Detailed, organized data
- Understand real world issues revolving around food inspections



Data

- Data is pre-formatted in CSV by the city of Chicago
- Size of data contains roughly 260,400 records (rows)
- 22 Columns of varying data
- Zero effort required to access data
- Research of data required to determine solution/hypothesis
- Data is structured and organized

Features

- Descending order of inspection report
- Most recent reports at top of data


Example columns

- Violation type
- Ward/zip code
- Facility type/name



Data Representation: Chicago Data Portal





credit:https://data.cityofchicago.org/Health-Human-Services/Food-Inspections/4ijn-s7e5/data



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About

Inspectio...	DBA Name	AKA Name	License #	Facility Type	Risk	Address	City	State	Zip	Inspection Da ↓	Inspection Type
2582417	DAMEN MARKET	DAMEN MARKET	2934154	Grocery Store	Risk 2 (Medium)	5700 S DAMEN AVE	CHICAGO	IL	60636	09/27/2023	License
2582406	FAMILY DEN	FAMILY DEN	2240254	RESTAURANT/BAR	Risk 1 (High)	8940-8944 S STONY IS...	CHICAGO	IL	60617	09/27/2023	Canvass Re-Inspect
2582390	LA LUNA	LA LUNA	2601590	Restaurant	Risk 1 (High)	1726 S RACINE AVE	CHICAGO	IL	60608	09/27/2023	Canvass Re-Inspect
2582377	DIMO'S PIZZA WRIGLEY...	DIMO'S PIZZA	2229420	Restaurant	Risk 1 (High)	3463 N CLARK ST	CHICAGO	IL	60657	09/26/2023	Complaint
2582370	CHICAGO CTR COLLEGIA...	CHICAGO COLLEGIATE C...	3619417	School	Risk 1 (High)	11816 S INDIANA AVE	CHICAGO	IL	60628	09/26/2023	Canvass
2582326	ROGERS MARKET	ROGERS MARKET	2930229	Grocery Store	Risk 3 (Low)	1409-1411 W LUNT AVE	CHICAGO	IL	60626	09/26/2023	License
2582299	Inter-American	Inter-American	29191	School	Risk 1 (High)	851 W Waveland AVE	CHICAGO	IL	60613	09/26/2023	Canvass
2582325	CURTIS ELEMENTARY S...	CURTIS ELEMENTARY S...	1964658	School	Risk 1 (High)	32 E 115TH ST	CHICAGO	IL	60628	09/26/2023	Canvass
2582353	O'Keefe	O'Keefe	24751	School	Risk 1 (High)	6940 S Merrill (2132E)	CHICAGO	IL	60649	09/26/2023	Canvass
2582346	LITTLE GREEN TREE HO...	LITTLE GREEN TREE HO...	2385708	Daycare Above an...	Risk 1 (High)	1929 N HALSTED ST	CHICAGO	IL	60614	09/26/2023	License
2582317	Brown Acad.	Brown Acad.	24621 2385708	School	Risk 1 (High)	12607 S Union (700W)	CHICAGO	IL	60628	09/26/2023	Canvass

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Showing Food Inspections 1 to 100 out of 260,391

Solution and Expected Deliverables/Findings



Approach

- Approach the problem by categorizing the data by the violation type
- Gather more information regarding the surrounding area in which said violation occurred in
- Type of facility has the most types of these kinds of violations

The scope

- Encompass the mitigating factors of these violations and proposed solutions to prevent repeated events
- The system will be static for now, but may change in the future.

End Result

- Establish a clear direction for this project with the collection of data
- Utilize proposed analysis techniques for the data
- We envision the end results to provide an understanding towards the causes of various food violations
- Possible solutions to preventing these violations in the future

Technique

- Use pandas to help organize or group the data by certain facilities, violation types, and areas so we can analyze the data
- Use visualizations such as graphs or charts.