Project Use-Case: Exploring VapeShops Location Data in Chicago, IL

A person with smoke coming out of it

Description automatically generated

Introduction:

Vaping is one of the fastest-growing industries and becoming more popular across parts of the world. Traditional tobacco consumption has had a small but steady decline in the estimated number of smokers globally. As more smokers seek to switch to safer alternatives, vaping and electronic cigarettes gain a strong momentum. With innumerable selections from the type of smoking devices to thousands of e-liquid flavors available, physical stores continuously attract returning customers with qualities that make vaping a lasting industry.

Many business owners are already taking advantage of this emerging trend by opening vape shops in various locales. As a result, vape shops can be quickly saturated in particular areas would otherwise eat away potential profits to competitors.

Entrepreneurial ambitions for running a profitable business in the vaping industry comes with many opportunities. As with any business decision, opening a vape store business requires serious consideration and risk-taking. Physical location for opening a new business is a critical component that should be taken into consideration when opening any business.

Business Problem

The objective of this project is to analyze the location data in Chicago and neighborhood areas in order to select an optimal location for opening a new vape store. Using data science methodology, data visualization, and machine learning techniques, this project aims to provide solutions to answer the business question: In the city of Chicago, if a new business owner seeks to open a new vape shop, where would you recommend that they open it?

Target Audience of this project

This project useful to investors as well as current and new business owners looking to gain insights on market demands within locales, or to open/invest vape shops in unsaturated locations near Chicago, IL.

Data required for the Project

* List of cities/neighborhoods near Chicago. This defines the scope of the project which is limited to areas nearby the city of Chicago.
* Latitude and Longitude Coordinates. The data will be used to plot on a geographic map.
* Venue data for Smoke/Vape Shops. Will be used to further drill-down into the data at a more granular level for analysis
* API keys and documentation (Foursquare, Yelp). Will be used to make GET requests for obtaining data within the specified parameters.

Image source URL

<https://www.vaporfi.com.au/blog/sub-ohm-vaping-beginners-guide/>