Capstone project II

**Title: Analysis of E-Scooters in Chicago**

**Introduction:** In this report, I analyzed the " [E-Scooter\_Trips.csv](http://localhost:8888/edit/Desktop/DataAnalysis/Capstone%20Project%20II/E-Scooter_Trips.csv)" dataset using Python to gain insights into different aspects of e-scooter trips in Chicago, different vendors, and number of trips through different communities in Chicago.

**Step 1: Loading and Exploring the Data**

Data is loaded by importing the necessary libraries and loading the dataset into a Pandas DataFrame.

**Analysis of data: I took 3 hypotheses to analysis the data, Average distance and duration covered with E-scooter trips, Number of E-scooter trips per Vendors and Number of trips per top 10 communities.**

**Hypothesis 1: Average distance and duration covered with E-scooter trips**

To investigate the trend in electric vehicle adoption, I calculate the Average distance and duration covered with E-scooter trips in Python, the average trip duration is 908.50 minutes and the average trip distance covered is 2600.54 miles.

**Hypothesis 2: Number of E-scooter trips per Vendors**

There are 4 E-scooter vendors in Chicago. The bar graph represented below show the number of trips per vendor. Lyft is the most extensively utilized followed by Lime, Spin and then Link**.**

A graph with blue rectangles

Description automatically generated

**Hypothesis 3: Number of Trips in Top 10 Community Areas**

To investigate the E-scooter trips across top 10 different community area in Chicago, a scattered chart is created.

A graph with blue dots

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The above graph shows that the highest trips made via E-scooter is in Near North Side, West side and Loop area.

**Conclusion:** Through data analysis and visualization using Python, valuable insights into the E-scooter trips within Chicago has been identified. The bar chart allowed to compare E-scooter trips per vendors, Lyft is the most used E-Scooters in Chicago area. Finally, Near North Side, West side and Loop area in Chicago is where most E-scooter trips are made compared to other areas in Chicago.