

Hamilton Public parking Optimization

Optimizing Hamilton city Public parking to improve utilization
available parking lot and increase revenue



01 Introduction

It is now common knowledge that most cities suffer from a parking problem and building an adequate parking facility should be an integral part of modern cities development planning. As development pace increased in most city centers due to the attraction of economic and developmental activities, traffic congestion problems became an imminent issue confronted with these cities due to the burst of human interactions. This development has led to an increased demand for parking spaces especially in downtown areas. Hamilton is not immune from this part of history with a growing population currently estimated at 819,167 according to PopulationU.com and a growth rate of 3.7%

02 Problem Statement

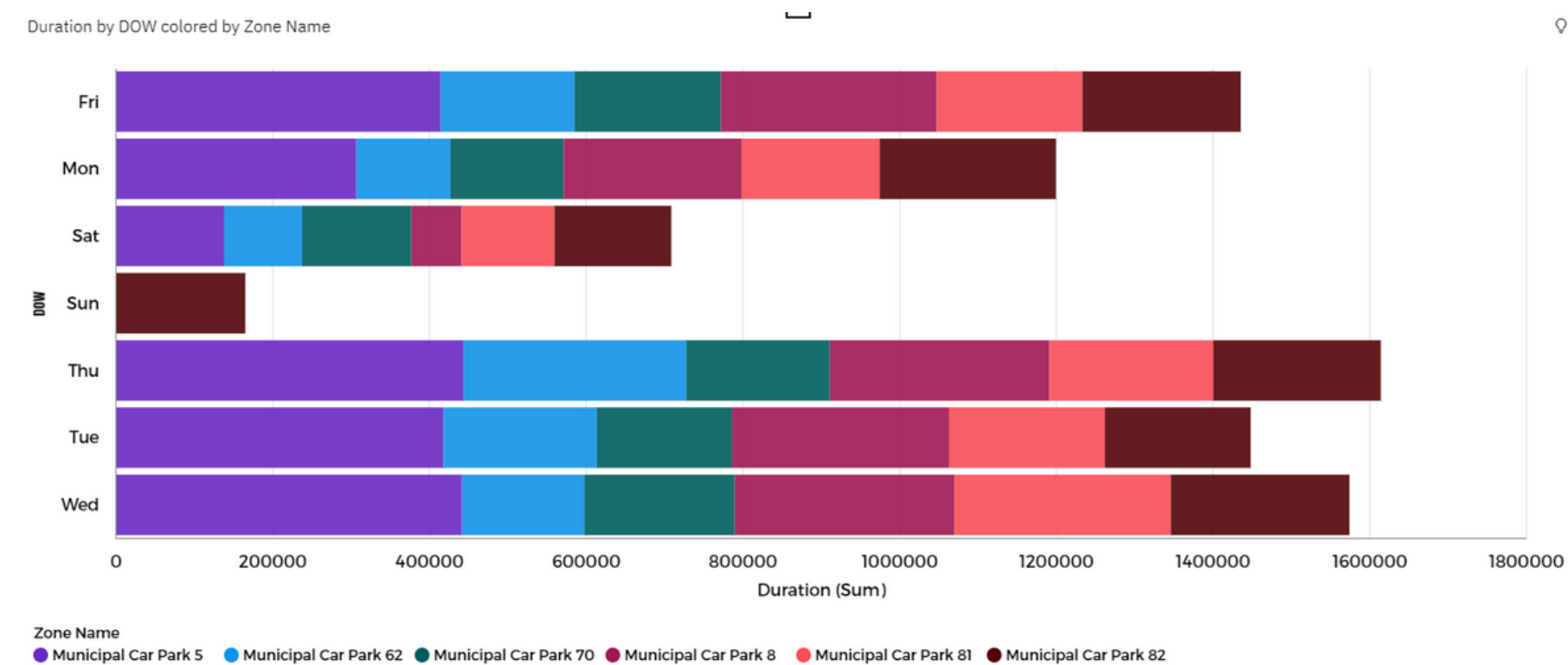
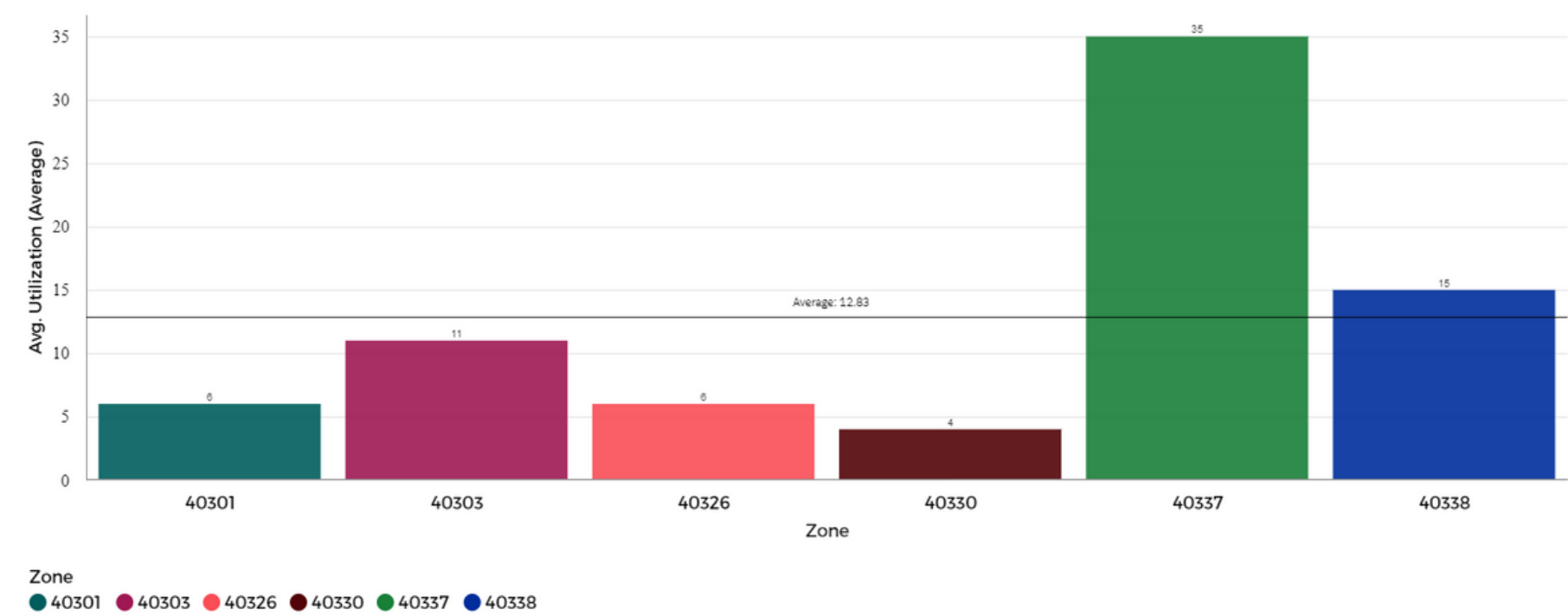
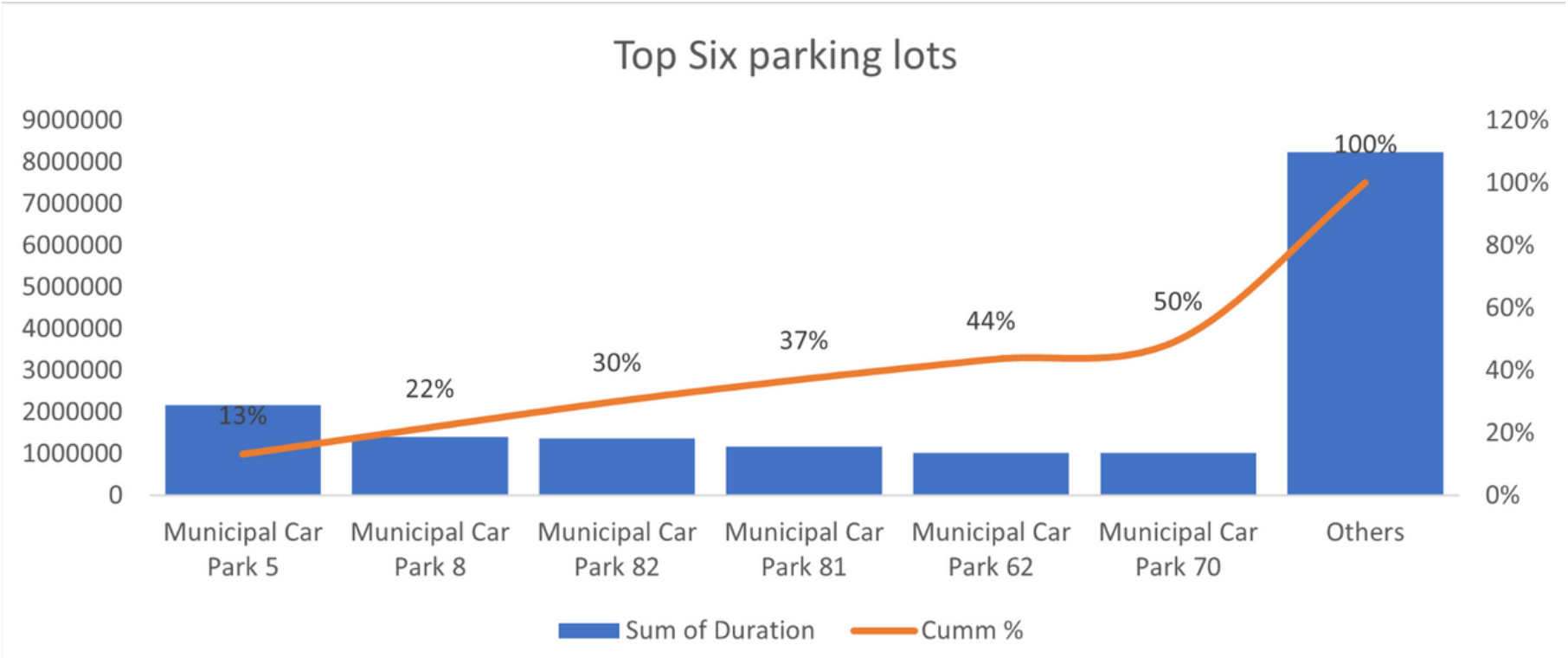
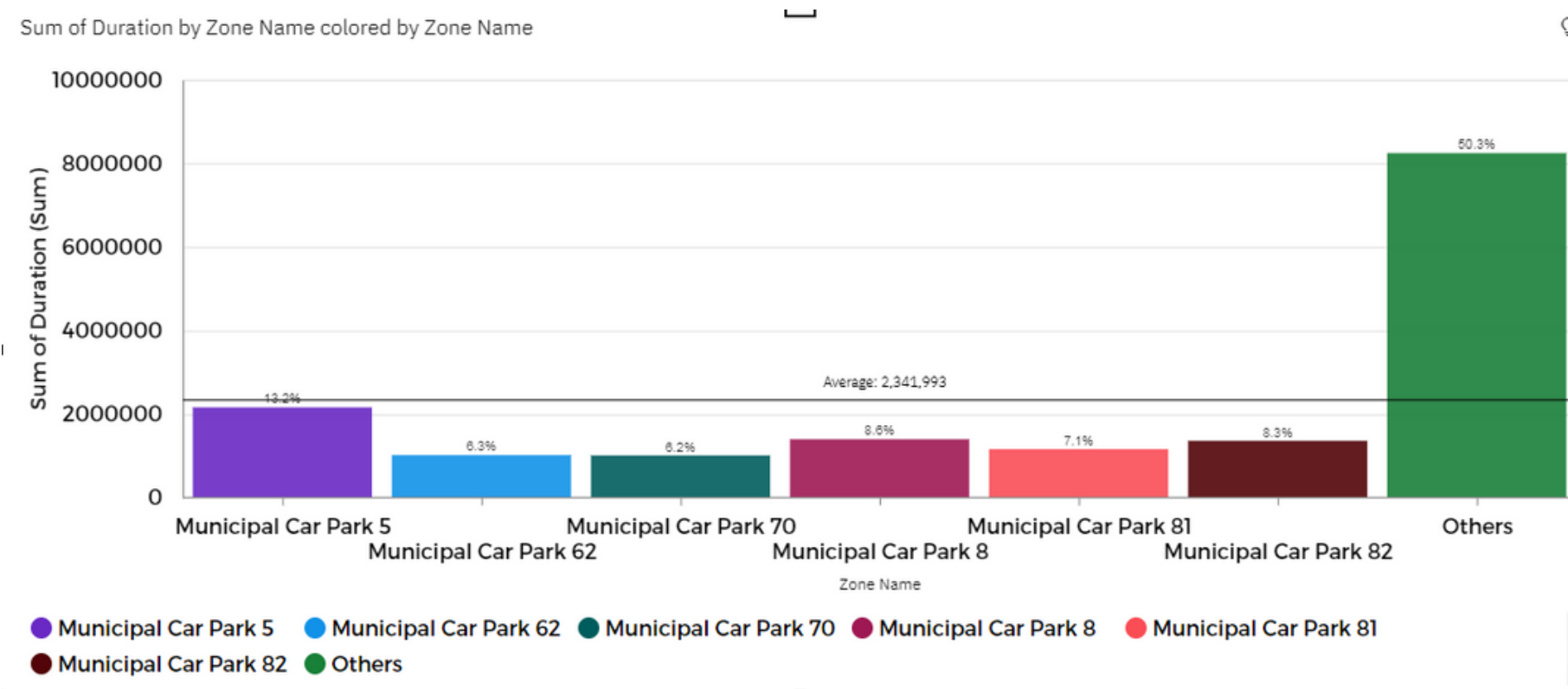
Parking is an endemic problem in modern cities and building an integrated parking system in integral to solving the problem. In Hamilton, there has been an identified gaps in tracking actual time used parking customers on one hand leading to revenue loss for Hamilton and underutilization of parking spaces leading to poor user experience.

03 Goal Statement

Our goal is to analyze the data and derive actionable insights that can be used to improve the parking problems in Hamilton by looking at factors around utilization and revenue optimization.

Also, we would be providing probable recommendations to help address the parking problems in the city of Hamilton

Data Analysis



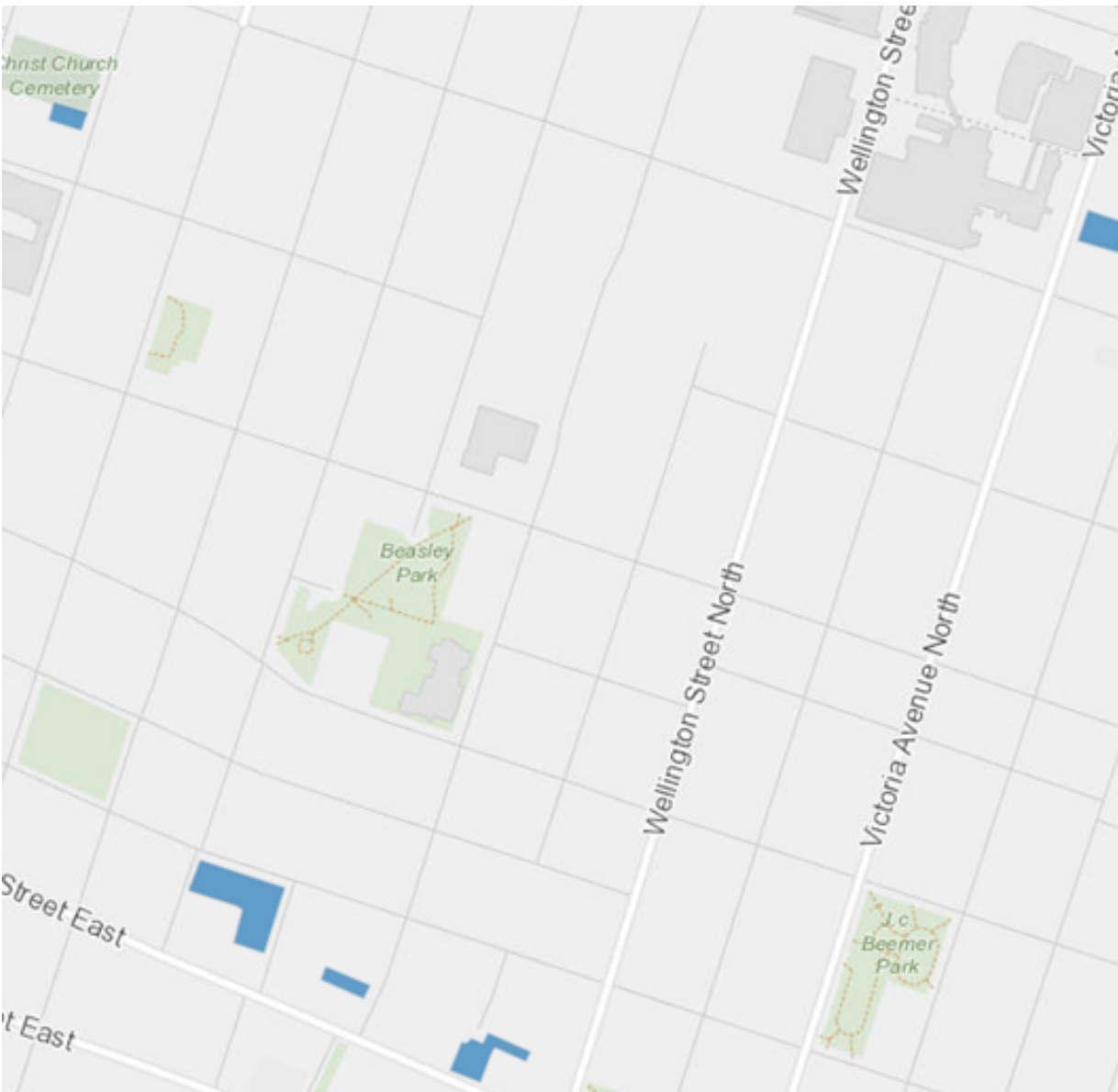
06 Conclusion

Our findings show that while there was a correlation between utilization and revenue, we observed that the top six parking lots have very low utilization comparing available spaces to number of cars parked daily. This shows that there is an opportunity for Hamilton City to optimize revenue generated from parking lots in the cities.

Also, Data shows that Wednesday, Thursdays, and Fridays have the highest occupancy across the six parking lots analysed. Hamilton City can plan adequately for these days by deploying AI algorithms to profile number of customers that would be interested in All day parking, while providing dedicated parking lots for this segment of customers, short stay customers should also have a dedicated lots for easier management. These lots must be prioritized for automated parking.

Furthermore, Hamilton city can address the need of inadequate spaces by building an automated multi-level parking in parking lots with high occupancy. This will help accommodate more cars and ultimately improve Hamilton revenue generation.

Lastly, data shared shows that Hamilton city has attained a high level of technological integration in its parking system with 97% of parking subscription completed through mobile app. A fully integrated and connected technologies using AI, Sensors and cameras would help improve utilization of parking lots hence increased revenue.



04 Approach

Going by available data, there are 52 parking lots in Hamilton, and our approach is to focus on parking lots 5, 8, 62, 70, 81, and 82. The lots fore mentioned generate the most traffic representing 50% of the entire parking lots in Hamilton. We believe solving the problems in these Lots would help solve majority of Hamilton parking problems and key learnings can be deployed in other parking lots as the need arise.

05 Analysis

In a regular research paper, the analysis section is one of the longest parts as it builds on the information that supports the objective and thesis. With a research poster, you can trim down the analysis to the most important parts. Use bullets to emphasize points. Include key graphs, tables, graphics, and other images that support the study and show a visual analysis of the data.