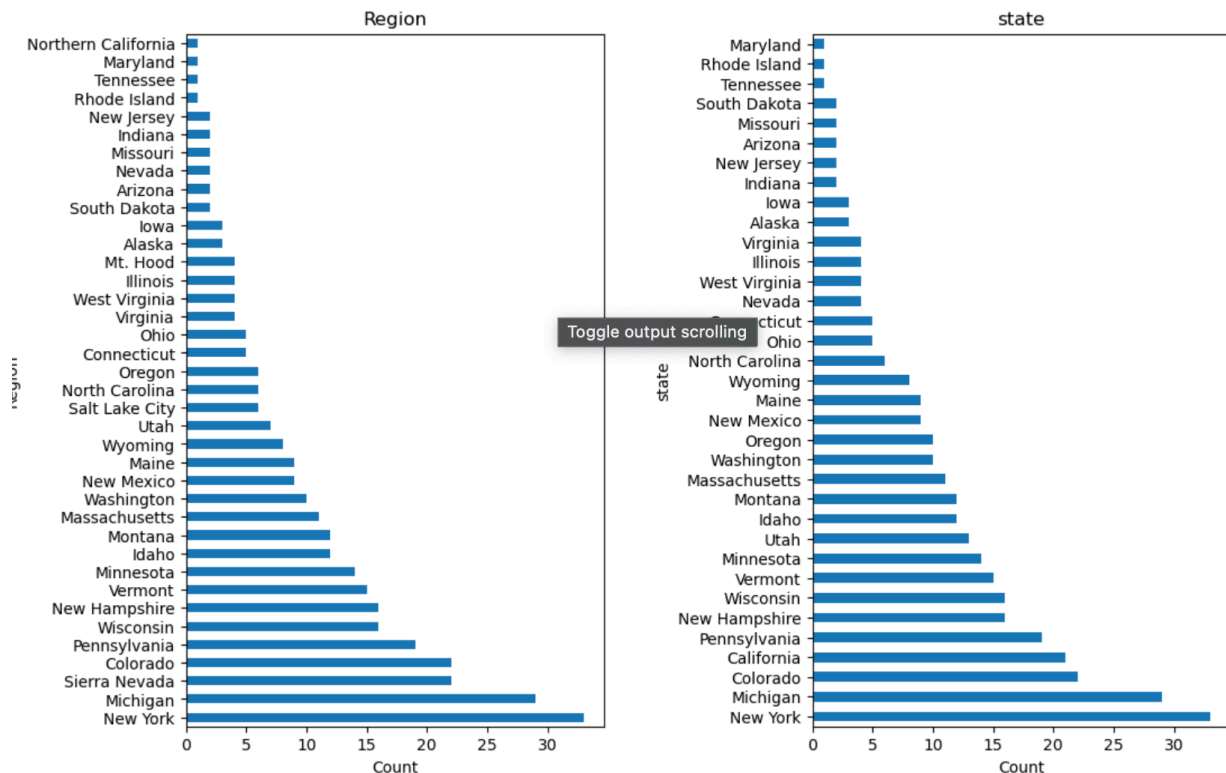


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Problem Statement: Determining the most effective price for Big Mountain Resort in Montana involves understanding the optimal price for customers based on our analysis of what other resorts are offering and how much they charge. We will compare and analyze this information to determine what our client, Big Mountain Resort, can charge in the future.

Data Wrangling: We organize a large dataset of all the resorts in the USA. We begin by separating the data of resorts by region and state. Then we identify the prices for weekends and weekdays per state. From our initial analysis of the data, we can see the differences in pricing that each resort offers per state. We organize the data to understand the metrics each resort provides and eliminate null values.



Region Vs State

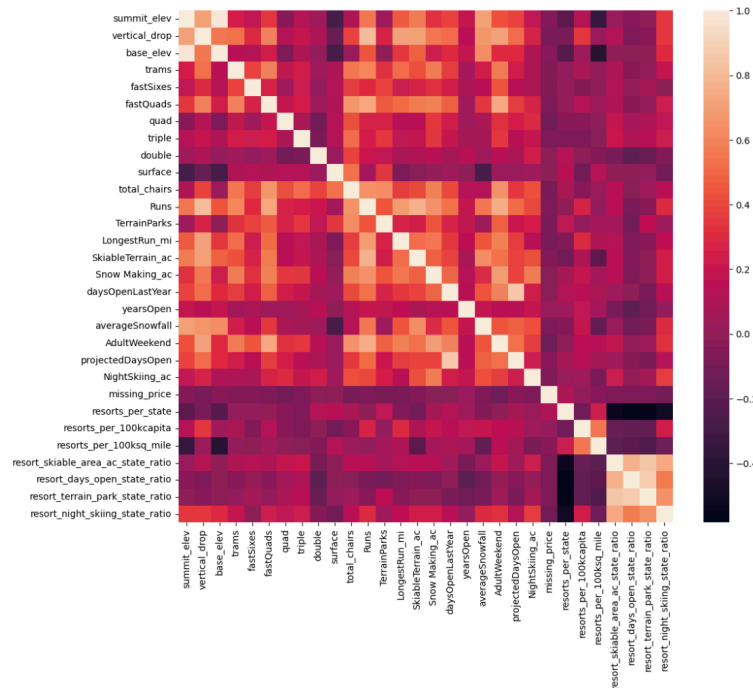
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[Propose a Chart](#)

Exploratory Data Analysis: After differentiating between different resorts, we start looking at trends and correlations between various benefits and compare them to the prices that each resort is charging. We do this to understand how each variable affects the pricing decisions per resort and how we can apply these insights to our client. There are outliers that we may need to ignore to better understand the average factors affecting price points

Model Preprocessing with feature Engineering: After we remove unnecessary information and begin to alter the data to true understand it. From there we organize the competitors data to analyze

[Trends from Data](#)



Correlation Heat Map

Pricing recommendations/Conclusion:: Through analyzing the data and MAE, we see that we can increase the price by \$10.39. While through further analysis, we can increase the cost of ticket by expanding runs, vertical drop and adding chairs in the future. Already we can see how we can expand the profits for Big Mountain Resort with what they already provide their customer and comparing the cost of other resorts in surrounding resorts. We recognize this being analyzing Vertical drop, average cost, Snow making machine and amount of chairs provided. We learned all this by cleaning, comparing and organizing the data provided. Now Business executives can make the decision for Big Mountain Resort.

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Future scope of work: Further work would involve analyzing every feature increase that could affect the cost for the business. For example, night skiing per range, the number of days open per year, or increasing the open days with the use of snow-making machines. This would help maximize costs and determine what can be provided to the customers of Big Mountain Resort. Executives would need to decide, based on all the data, how they would like to expand their offerings or even minimize them to provide the best value for everyone. Overall, cost analysis would be crucial for making immediate decisions on ticket pricing.