Guided Capstone Project Report

The states that have the highest resort density are Vermont, Wyoming, New Hampshire, Montana and Idaho. The states that have the highest number of resorts per 100k square miles is New Hampshire, Vermont, Massachusetts, Connecticut, and Rhode Island. The states that have both a high resort density and high number of resorts per 100k square miles is Vermont, New Hampshire. New Hampshire has sixteen resorts and Vermont had fifteen resorts, the number of days open are 1847 and 1777 days open. The best random forest regressor feature importance are fastQuads, runs, Snow Making\_ac, vertical\_drop, skiableterrain\_ac, total\_chairs, and projected days open. Fast quads and runs have the most importance, and these should be the features the resort focuses on when increasing the ticket prices. The skiable terrain seems to have an influence because the two states that have the highest number of resorts, Vermont and New Hampshire have similar days number of days open. There is a strong correlation between ticket price and vertical drop, fast quads, runs and total chairs. The factors that have the most importance is also vertical drop, fast quads, runs and total chairs. These are the factors of each resort that should be focused on when considering the ticket prices. The scatterplots present the features and their level of correlation to the ticket price based on the increase of each feature. These are the features that should be marketed, increase the number of features, upgrade these features, this will help support the increase in ticket prices. The total days open should also be considered, so customers are comfortable paying a higher premium for a resort they can access as often as they did before or more. Once these features are considered and upgraded or marketed, the ticket price will be supported by consumers. The increase in ticket price for the Big Mountain resort can be supported because it has a higher vertical drop, larger snow making area, one of the highest number of chairs, more fast quads than most resorts, higher number of runs, one of the longest runs, and higher skiable terrain area. Big Mountain resort has features that support an increase in ticket prices because it fairs well compared to other resorts in the market share, and compared to resorts in the state. If more than one run is closed, the ticket price decreases, especially if it is higher than six total runs. This means that customers do not value a higher ticket price when a significant number of runs are closed which influences their experience at the resort.

A screenshot of a computer

Description automatically generated with low confidence

Histogram

Description automatically generated