Big Mountain Resort Data Analysis Report

The Big Mountain company has provided us with a list of options:

1. Permanently closing down up to 10 of the least used runs. This doesn't impact any other resort statistics
2. Increase the vertical drop by adding a run to a point 150 feet lower down but requiring the installation of an additional chair lift to bring skiers back up, without additional snow making coverage
3. Same as number 2, but adding 2 acres of snow making cover
4. Increase the longest run by 0.2 mile to boast 3.5 miles length, requiring an additional snow making coverage of 4 acres

Based on our model, we can begin to analyze the effect of each of these options on our revenue.

**Option 1:** Close Up to 10 of the Least Used Runs

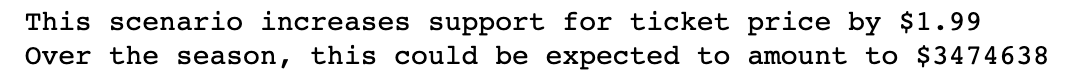
A close up of a map

Description automatically generated

According to our model, closing down on runs will force us to decrease our ticket prices and by extension, lower our revenue. In conclusion, this option does not seem viable.

**Option 2:** Add run, increase the vertical drop by 150 feet, install an additional chair lift

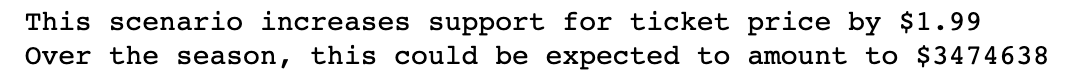
Our team was able to program a function that would predict the allowable increase in ticket prices and revenue. The results of adding 1 run, increasing the vertical drop by 150 feet, and installing an additional chair lift yielded the following results:



This looks promising as it appears that going with this option would allow us to increase our ticket price by up to $1.99 and increase our revenue as well. Let us explore the other options first.

**Option 3:** Same as Option 2, but adding 2 acres of snow making in addition

Using the same function as used for the previous option, we interestingly get the exact same results:



**Option 4:** Increase the longest run by 0.2, adding 4 acres of snow making capability.

Using our function, it appears that this option has no effect on an allowable increase in ticket price. Therefore it will not be considered.

In conclusion, it seems that either option 2 or 3 will be equally optimal in generating some extra revenue for the resort.