

# A pricing model for

The Big Mountain Resort

# The Context

- The Big Mountain Resort is a ski resort located in Montana, with access to 105 trails.
- Every year about 350,000 people visit Big Mountain Resort.
- They have recently installed an additional chair lift to help increase the distribution of visitors across the mountain.
- This additional chair increases their seasonal operating costs by \$1,540,000.
- For Big Mountain Resort to base their pricing mainly on just the market average won't be enough to maximize their capitalization investment and can't be sustainable to gain an edge over the competition.

# Problem Statement

- What opportunities exist for Big Mountain Resort to increase profit in their facilities to offset recent addition to operating costs this season by \$1,540,000.

# Scope of the Solution Space

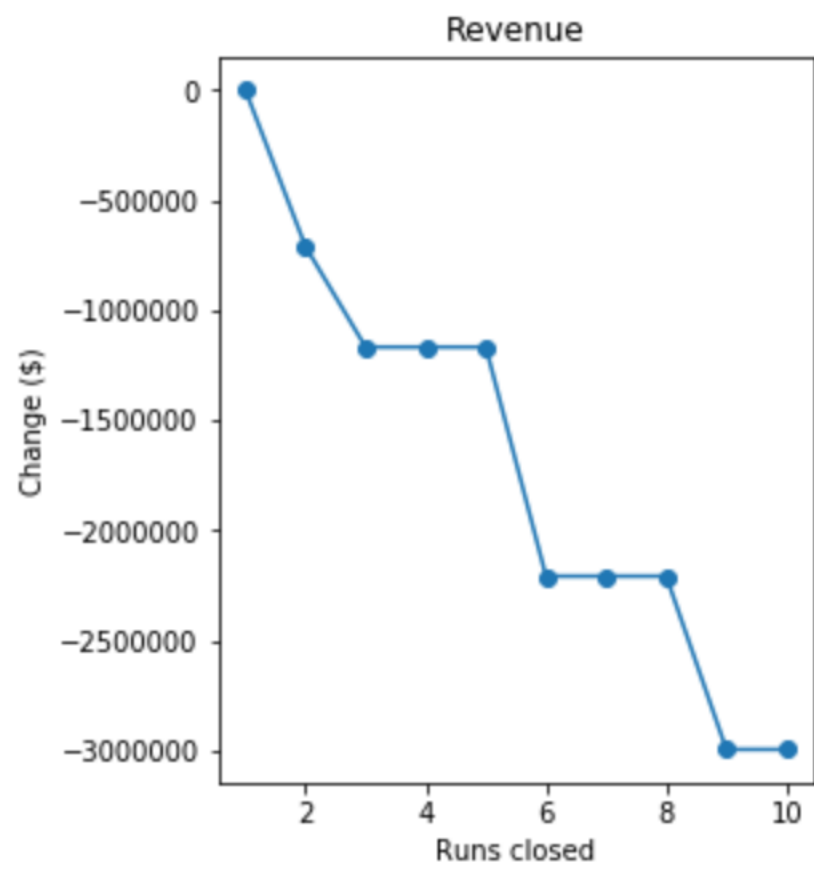
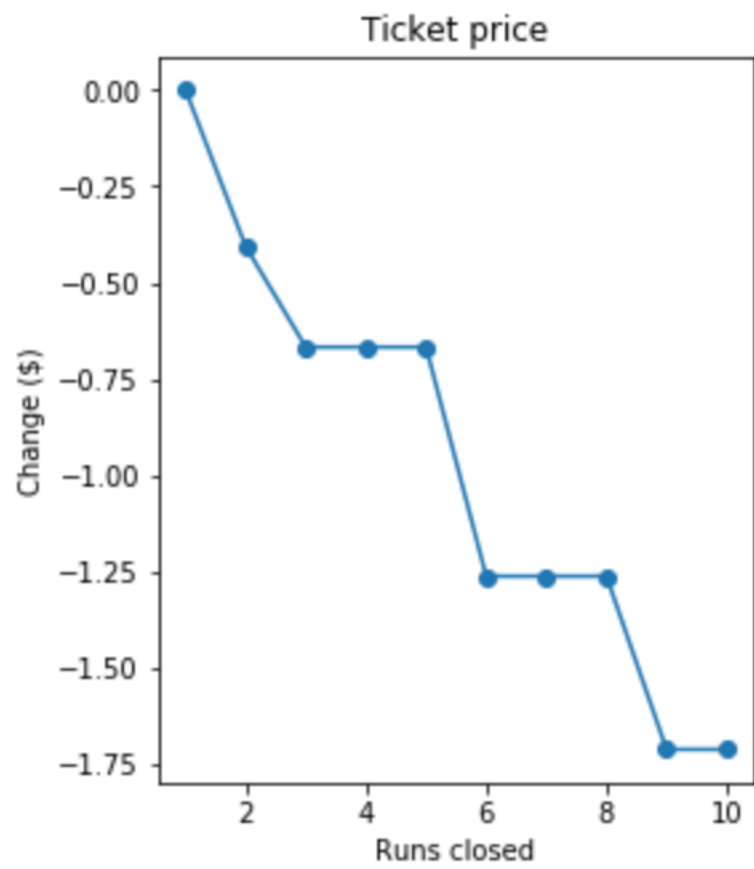
- The business department has shortlisted four options:
  - Permanently closing down up to 10 of the least used runs. This doesn't impact any other resort statistics.
  - Increase the vertical drop by adding a run to a point 150 feet lower down but requiring the installation of an additional chair lift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

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# Recommendations and Key Findings

- The model indicates that pricing in Big Mountain Resort is lower than predicted model around 16%.
- Some profitability scenarios are as follows:
  - Increasing the vertical drop would contribute the profitability by increasing the ticket prices around 10%. The potential revenue increase is around \$15M.
  - Increasing snow terrain would increase the ticket price by 12%, which cause a revenue increase by \$17M.

- We also checked what would be the result of closing runs.
  - There would be no change on ticket prices or revenues after closing one run. Therefore, Big Mountain Resort might consider closing on run to decrease maintenance costs.
  - However, closing 2 and 3 runs would decrease the revenue by \$750,000 and \$1.25M respectively.
  - There would be no difference between closing 3 – 5 runs. Hence, we would make a comparison if it is worth to close some runs. However, to do that we need some more data regarding maintenance costs.



# Conclusion

- Based on preprocessing and training we could say that there eight features that would be considering for modeling. However, not all of these features would impact the ticket prices based on our model. Still, there are a couple of ways to increase profitability, either by cutting the costs or raising the income by increasing the ticket prices.
- It can be said that:
  - The optimum solution would be to the vertical drop by 150 ft, add one Chair Lift, one run and 2 acres of snow making cover. As a result, the resort would have a chance to increase ticket prices by 12%.
  - This increase in ticket prices would result an increase in revenue by \$17M. Given there was some maintenance costs around 1.5M. This arrangement would create a 15.5M extra seasonal revenue.
- But there is some discrepancies in this calculations because we do not have enough data regarding maintenance costs. Having detailed data would help create more precise calculations.