

# Guided Capstone Project Report

## November 2023

---

Presented by Ayse B Sengul

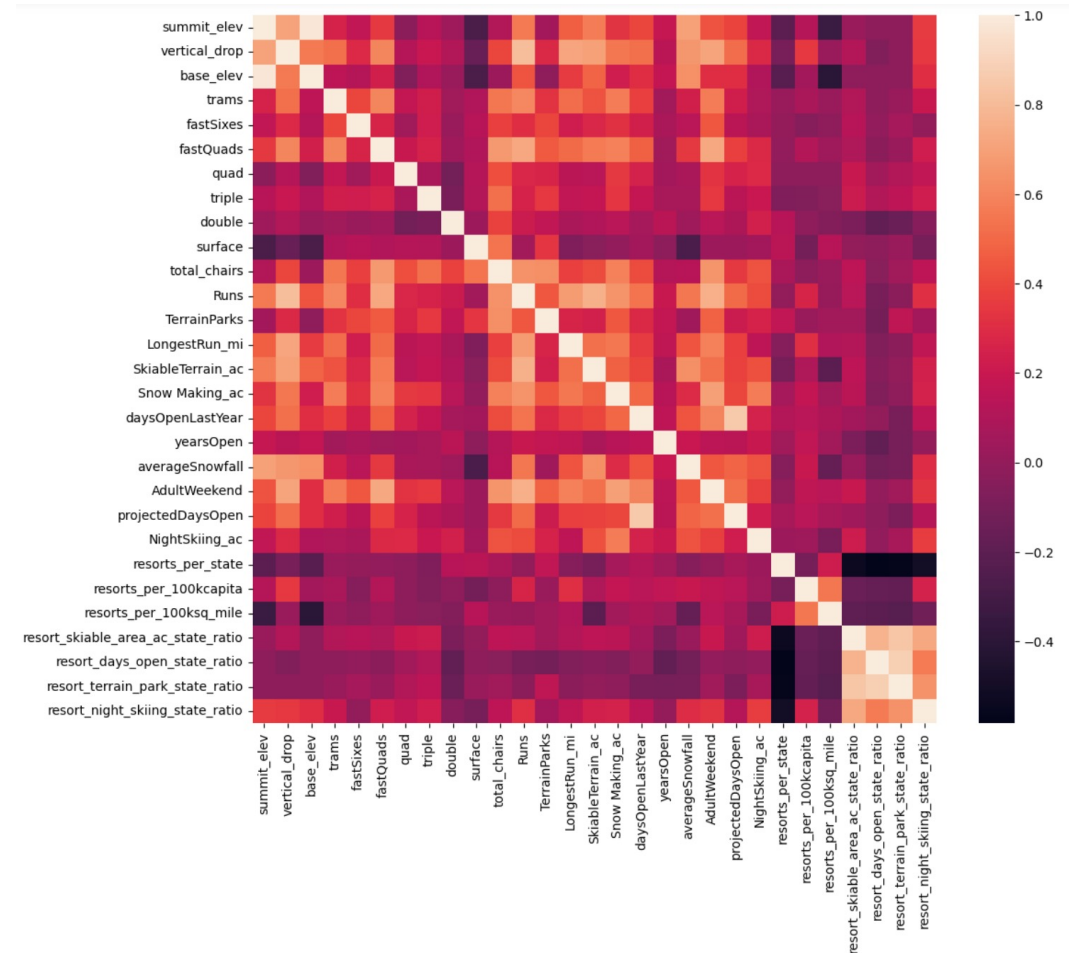
# Problem identification

- Install additional chair lift.
  - Increases the operating costs by \$1.54 million.
- Charge more than the average price.
  - Current ticket price is \$81.
- Not fully capitalizing on its facilities.
- How to select a better value for ticket prices?



# Recommendation and key findings

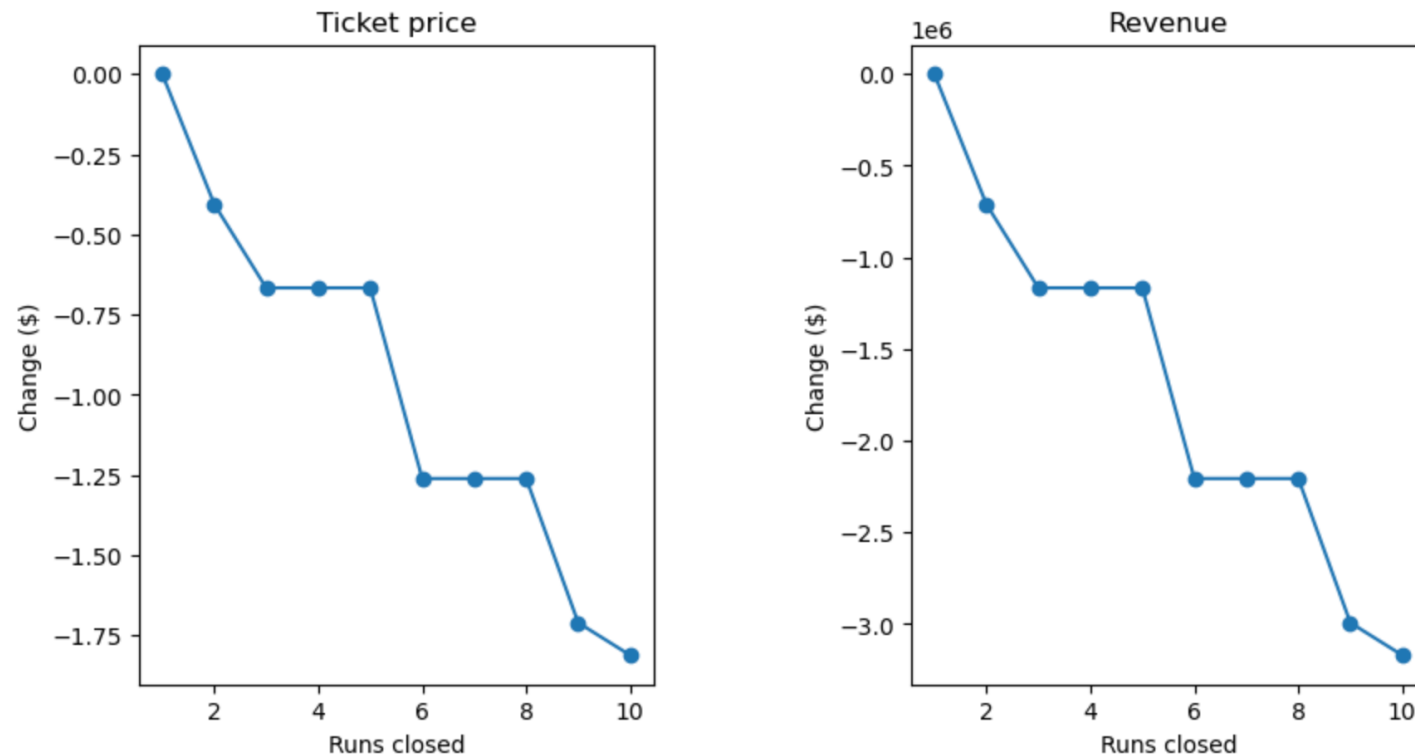
- Ticket prices are notably influenced by these features:
  - Vertical Drop
  - FastQuads
  - total\_chairs
  - Runs
- Focusing on those features is optimal for modeling ticket prices.
  - Closing some runs
  - Adding a new run
  - Increase the vertical drop by 150 feet
  - Installing an additional chair lift



**Figure 1.** Relationships amongst the features.

# Modeling results and analysis

- **Scenario 1**, closing a few runs doesn't negatively impact much, but if you close too many, it significantly lowers ticket prices and revenue.



**Figure .** Ticket price and revenue change for modeling scenarios 1.

# Modeling results and analysis

- **Scenario 2** involving adding a new run, increasing vertical drop, and installing a chair lift, is projected to support a \$1.99 increase in ticket prices.
- This enhancement is expected to generate around \$3.47 million in additional revenue.

# Modeling results and analysis

- **Scenario 3**, which involves adding an extra 2 acres of snowmaking, does not significantly impact ticket prices.
- The minor increase in snowmaking area doesn't affect ticket prices.

# Modeling results and analysis

- **Scenario 4**, extending the longest run by 0.2 miles and adding an additional 4 acres of snowmaking capability, does not have a noticeable impact on ticket prices.
- These specific enhancements do not influence the pricing of tickets at Big Mountain Resort.

# Summary and conclusion

- The analysis suggests an opportunity for Big Mountain Resort to increase its **current ticket price of \$81.00**.
- The predictive model recommends an **ideal ticket price of \$95.87**, indicating room for adjustment.
- Scenario 1 indicates **potential room to close some runs**, careful consideration is required to avoid negative consequences.
- Scenario 2 is recommended for implementing a **\$1.99 ticket price increase**. This improvement is anticipated to generate approximately **\$3.47 million in additional revenue** over the season



Thank you!