Big Mountain Resort, a ski resort in Montana, offers many features for their customers of all skill levels at a premium price, more than their market competitors. With a recently installed new chair lift, their operating costs have gone up by about $1,500,000 for the upcoming season. With this in mind, the resort set out to look into how they can capitalize on profits by either cutting costs or raising their ticket prices.

By modeling expected changes in ticket price and revenue by changing / adding features to Big Mountain Resort, the resort came down to four different scenarios. The scenarios were closing down up to 10 of the least popular runs, increasing the vertical drop by 150 feet with the installation of a new chair lift, doing the same as before but, with added 2 acres of snow making cover, and lastly, increasing the longest run by .2 miles (which also requires 4 additional acres of snow making).

The scenarios that didn't show an increase in revenue was closing of unpopular runs as well as increasing the longest run. By increasing the longest run, we concluded that there was little to no change in the ticket price and revenue. In the figure below though, we saw that by closing some of the current runs, our ticket price models would go down as well as our revenue.
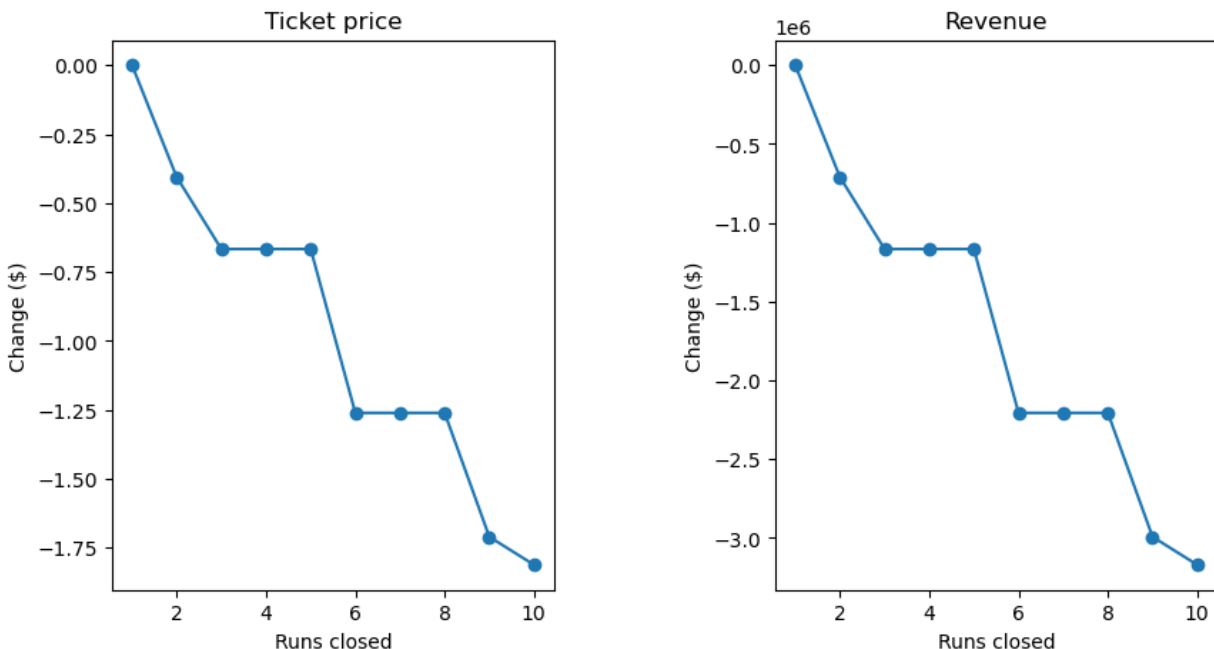
We then saw that for the other two scenarios, we would see large increases in revenue. By increasing the vertical drop with the installation of a new chair lift, we could increase ticket prices by about $2 and then have a revenue increase of 3.5 million for the upcoming season. By doing the same and increasing more snow making cover, we saw that the profits were the same but at the expense of higher operating costs for snow making.

With this analysis, it would seem best to go with the scenario in which Big Mountain Resort increases their vertical drop by 150 feet and adds a chair lift in order to capitalize on having a higher ticket price and increased revenue for this upcoming season while also minimizing the increased operating costs.