**Guided Capstone Project Report:**

**Context and Problem Identification**:

After recently adding a chairlift that increased operations costs by $1.5 million, *Big Mountain Resort* (BMR) wanted to re-evaluate its ticket pricing strategy based on data as it has suspected for quite a while it may be undercharging its guests. This led to the following question: How can *BMR* adapt its ticket pricing strategy by capturing the full value of its diverse infrastructure, product and natural offerings relative to its competitors in order to increase profitability by ~$3 million ?

**Data Cleaning & Exploratory Data Analysis (EDA):**

The data provided for this analysis contained information on 27 different parameters ~for 330 ski stations spread across >30 states. A quick glance at the data showed BMR currently charges above the current market average of weekend ticket prices of $64 with a price of $81. After wrangling and cleaning our data, we altered some parameters and were left analyzing good data for 276 ski stations. Once this was complete, we wanted to see if the state would have an impact on the prices and whether or not to consider it. After performing *Principal Component Analysis* ( PCA) we determined that the state had no considerable impact on price and decided to move on to modelling.

**Developing the Model**:

After data wrangling and EDA, we subsequently explored several model possibilities to see which features would affect Weekend Ticket Prices. We started by simply using the mean as a best guess, however this yielded a mean error of $19. Our next model was the linear regression, which performed better with… Ultimately, we chose to go

**Modelling Results and Key findings**:

The model found

Conclusion and Future Work:

In conclusion, the model built supports a rise in prices close to $95. For future analysis, in order to