My Work:

Overall Approach: For the articles, I chose to explore the data behind some European ski resorts. I chose this because I've been snowboarding all my life and thought it would be interesting to do something related to that. I wanted to explore the price difference of lift tickets, and the data led me to see that there is a direct correlation between the size of the mountain and ticket price.
I began by cleaning and exploring the dataset with R, making sure I could see the ranges for prices, slopes, and resort attributes. I used nrow(), subset(), table(), tapply(), mean(), min(), max() and the plotting functions plot(), barplot(), boxplot(), mosaicplot(). This helped me to visualize the data and figure out what I wanted to explore about the data in my article.
Reasoning: I chose ticket price (DayPassPriceAdult) as the central variable because it's the clearest business and consumer metric. I focused on altitude, slope size, lift capacity, and amenities because these are the major features skiers consider when choosing resorts, and operators use to set pricing.
Challenges: Some plots, like my original mosaic of Country vs Snowparks, didn't make sense visually. I corrected this by choosing a more meaningful comparison. I also had to adjust bin cutoffs to avoid empty categories and make results interpretable.
Resources Used:
Class and Recitation notes for reminders about tapply() and plotting data.
GPT (AI prompts) to help debug plotting issues (e.g., adding regression lines, fixing y-axis scales, and choosing better mosaic categories).
RStudio documentation for basic function syntax (boxplot(), barplot()).
Overall, I learned that simple R functions can uncover interesting patterns if you carefully design categories and comparisons. I also saw the importance of presentation, plot choice, and axis limits in making results much clearer.

Prompt List:

What could be interesting to explore about this data set?

What values would be good to separate this data by altitude and ski area?

How can I add colors to the specific data values in R?

What is the color value for blue in R?

Now, what is the color value for green in R?

How can I make the y-axis go to 50 in R?

How can I limit the barplot to only have 6 countries from my data set in R.

Can I do a line of best fit in R?

How would I do this for a scatterplot?

Why am i getting this error?
Error in file(file, "rt") : cannot open the connection In addition: Warning message: In file(file, "rt") : cannot open file 'European_Ski_Resorts.csv': No such file or directory.

How can I make this mosaic plot make more sense I feel that the values I picked don't make sense?

Why am I getting this error?

```
Error in table(data$SlopeSize, data$PriceBand) :
  all arguments must have the same length
```