**Business Scenario**

Every year, hundreds of people travel to the mountains to go skiing and snowboarding. This sport has risen in popularity, not only for your friends or families but to anyone looking to experience the rush and thrill, that this adrenaline-inducing activity has to offer. With this being said, it is important to have a comprehensive understanding of certain ski runs that cater to all different types of skill levels. These are some of the things we may want to consider before deciding on where to vacation to.

* What are the best resorts for beginners? What about experts?
* Which resorts have the highest mountain peaks and elevation changes?

**Questions to consider**

1. Total count and location of continents with lowest/tallest points
2. Total count and location of countries with lowest/tallest points
3. Count or Sum of all the different level slopes
4. Which resort has the most difficult slopes
5. Which resort has the most beginner slopes
6. Count of resorts that offer night skiing
7. Which resort has the longest trail
8. ‘Filter’ area where you pick the country and It gives you a list of stats based on the country
9. A beginners course would be child friendly, have more beginner to intermediate slopes, and have trails that aren’t too long
10. A difficult resort would have higher points, have more intermediate to difficult slopes, and have longer trails

**The Data**

The dataset used for this project was created and provided by the team at Maven Analytics. This data has ~500 ski resorts all around the world, including details on their location, prices, slopes, lifts, and seasons

**Key Findings**

* The resort with the highest point in this dataset is Breckenridge Resort with a peak of 3914 meters.
* The resort with the # of most difficult slopes is the Big Sky Resort with a count of 126
* The resort with the # of most beginner slopes is the Courchevel with a count of 312
* The resort with the longest trail Alpe d’Huez with 16 km
* The resorts with the most slopes are all in France- Les Valles with over 600 slopes.
* The resorts that are best for Experts are Courchevel, Les Sybelles, Nendaz, Thyon, Verbiar, Veysonnaz. I ranked these based off of the most difficult and intermediate slopes. They also needed to be one of resorts with the highest points and needed to have a long trail.
* The resorts that are best for beginners are Lech, Saalbach, Tignes, Le Grand Massif, Serre Chevalier, La Plagne and Espace Diamant. I ranked these based off a count of more intermediate and beginner slopes. They also needed to be child friendly and with a median length trail.

**Step by Step Process:**

**Data Cleaning in Excel**

I began by cleaning the data in every column. Some formatting in the ‘Resort’ column had unknown characters so I manually went through each one and ensured it had the proper name. I noticed that every time I would come across a special character, in this case it was the ‘?’ symbol, there was supposed to be a ‘/’ symbol instead. There were also some names that had a ‘^’ or ‘¸’ symbol and the correction was a letter ‘o’ and an empty space. I came to this conclusion after searching the resort name online. To fix the issue I just used the formula **‘=substitute(column, “char”, “new char”)’**

I also searched the “Resort” Column to search for duplicates. This was the only duplicate I could find.A screenshot of a computer

Description automatically generated

I also used conditional formatting to search for duplicates and no results came back.

**Tableau**

I imported this newly cleaned data into tableau.

I began by creating charts that I was thinking of using in my dashboard. In this process, I found the best possible ways to answer the questions posed above and the best possible way I could articulate them in my dashboard. I knew I had geographical data so I incorporated a map and let the user filter the data by continent or country. I created separate sheets for each of the questions. I inserted the resort name with either the highest point, night skiing, lowest point, difficult slopes, beginner slopes- into the labels field. I also wanted to incorporate some graphs and charts so I created a stacked bar chart that would differentiate the difficulty levels of the slopes. I did this by adding measure values into the columns and resorts into rows. I then combined the dual axis and merged the axis. I added the measure names into the color mark and changed it to blue colors which are colors or snow.

I also created a scatter plot which would show the difference between the amount of lifts at a resort vs the lift ticket. There was a slight correlation as well as some noticeable outliers. Based on the information gathered, the more lifts there were at a resort then the higher the lift ticket would be.

Lastly I created a chart with information that would pertain to a resort being for beginners or for experts. I created a calculated field named non-beginner slopes and added the difficult and intermediate slopes to that field. Similarly, I created another calculated field and named it non-difficult slopes and added the beginner and intermediate slopes to that field.

For the dashboard, I wanted to create a unique aesthetic look, so I went with a dark background and I included a mountain. Some typical snow colors are white and shades of blue so that was the color scheme I went with. I also used figma to create some borders of where I would display the information. I used blue and white colors for these borders. After figuring out the placement of all these sheets, I made the dashboard interactive and user friendly by creating an action filter with the continent and country filter.