Data visualization / Exploatory Data analysis for the selected data set using Matplotlib and Seaborn.

Create a bar graph contigency table using any 2 variables.

In [1]:
```
import pandas as pd
import matplotlib.pyplot as plt
```

loading the dataset

In [2]:
```
file_path = r"C:\Users\Dell\Documents\Sujal\DSPS\car_price_dataset.csv"
```

In [3]:
```
df = pd.read_csv(file_path)
```

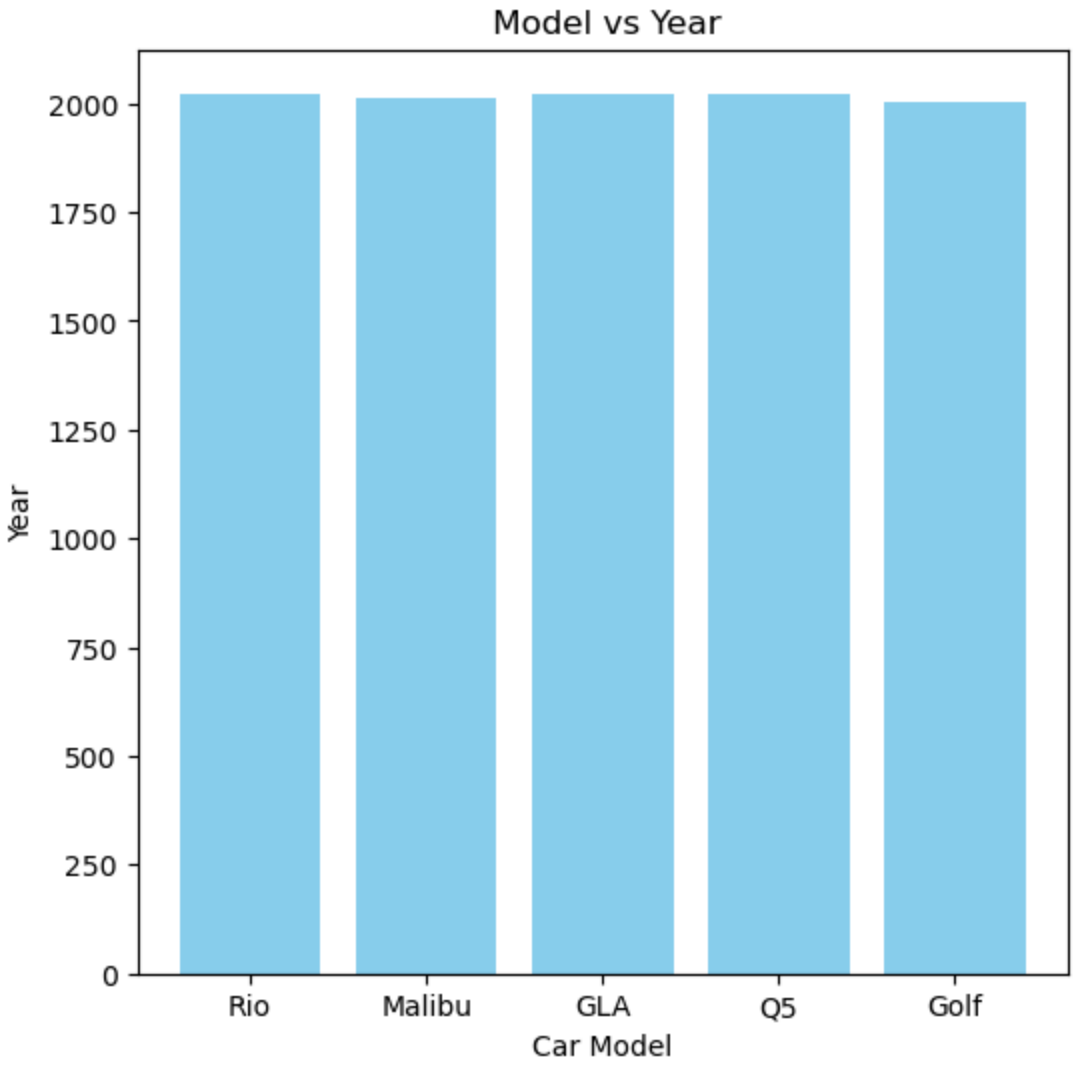
plotting the bar graph using the Model and Year.

In [11]:
```
first_5_cars = df.head(5)

# Plot the data
plt.figure(figsize=(6, 6))
plt.bar(first_5_cars['Model'], first_5_cars['Year'], color='skyblue')

# Adding title and labels
plt.title(' Model vs Year')
plt.xlabel('Car Model')
plt.ylabel('Year')

# Show the plot
plt.xticks(rotation=0)  # Rotate the model names for better readability if need
plt.show()
```



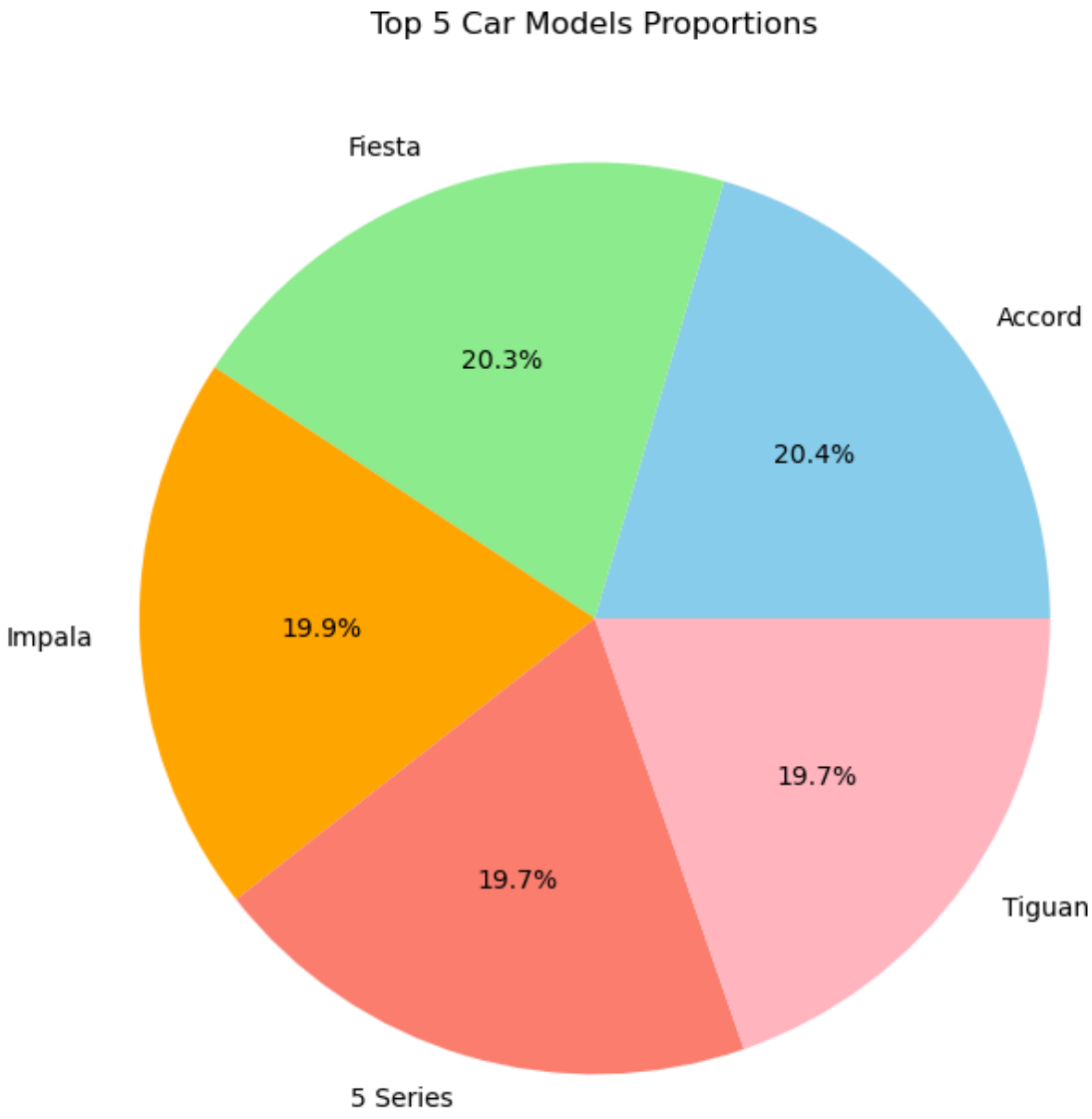
Pie Chart

In [12]:
```
# Count the occurrences of each car model
model_counts = df['Model'].value_counts().head(5)

# Plotting a pie chart
plt.figure(figsize=(8, 8))
plt.pie(model_counts, labels=model_counts.index, autopct='%1.1f%%', colors=['sk

# Adding title
plt.title('Top 5 Car Models Proportions')

# Show the plot
plt.show()
```

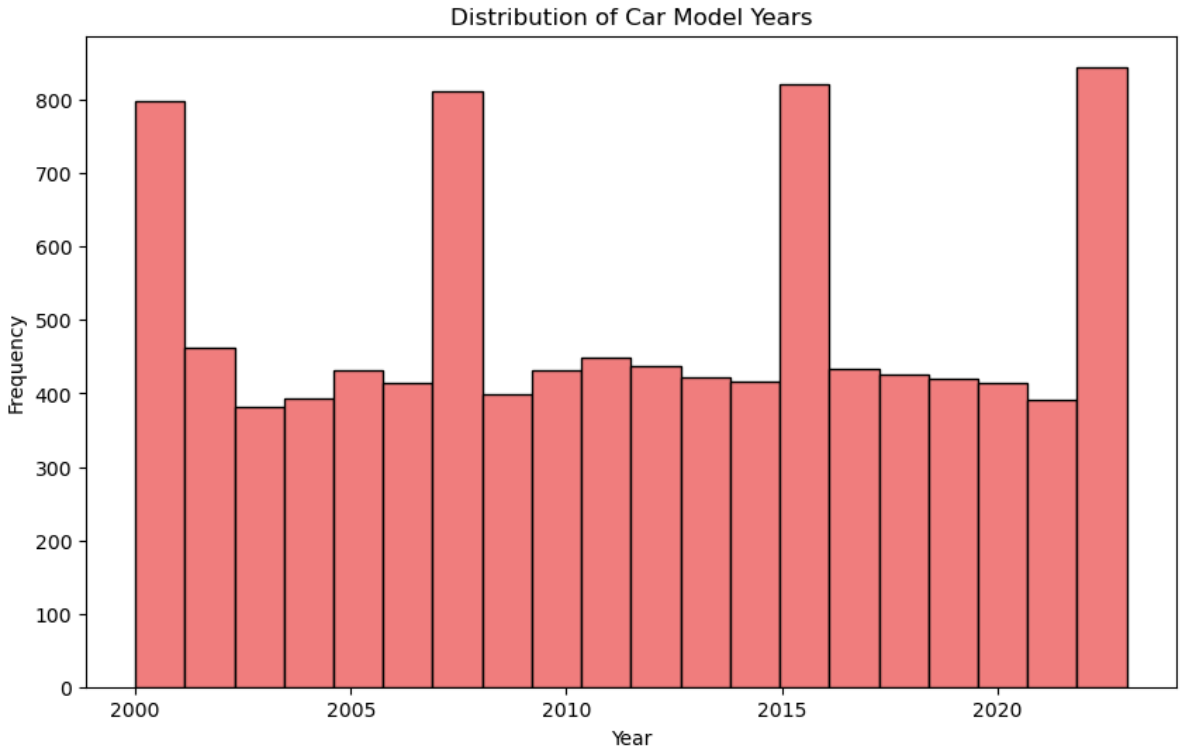


Histogram

In [13]:
```
# Plotting a histogram for the 'Year' column
plt.figure(figsize=(10, 6))
plt.hist(df['Year'], bins=20, color='lightcoral', edgecolor='black')

# Adding title and labels
plt.title('Distribution of Car Model Years')
plt.xlabel('Year')
plt.ylabel('Frequency')

# Show the plot
plt.show()
```

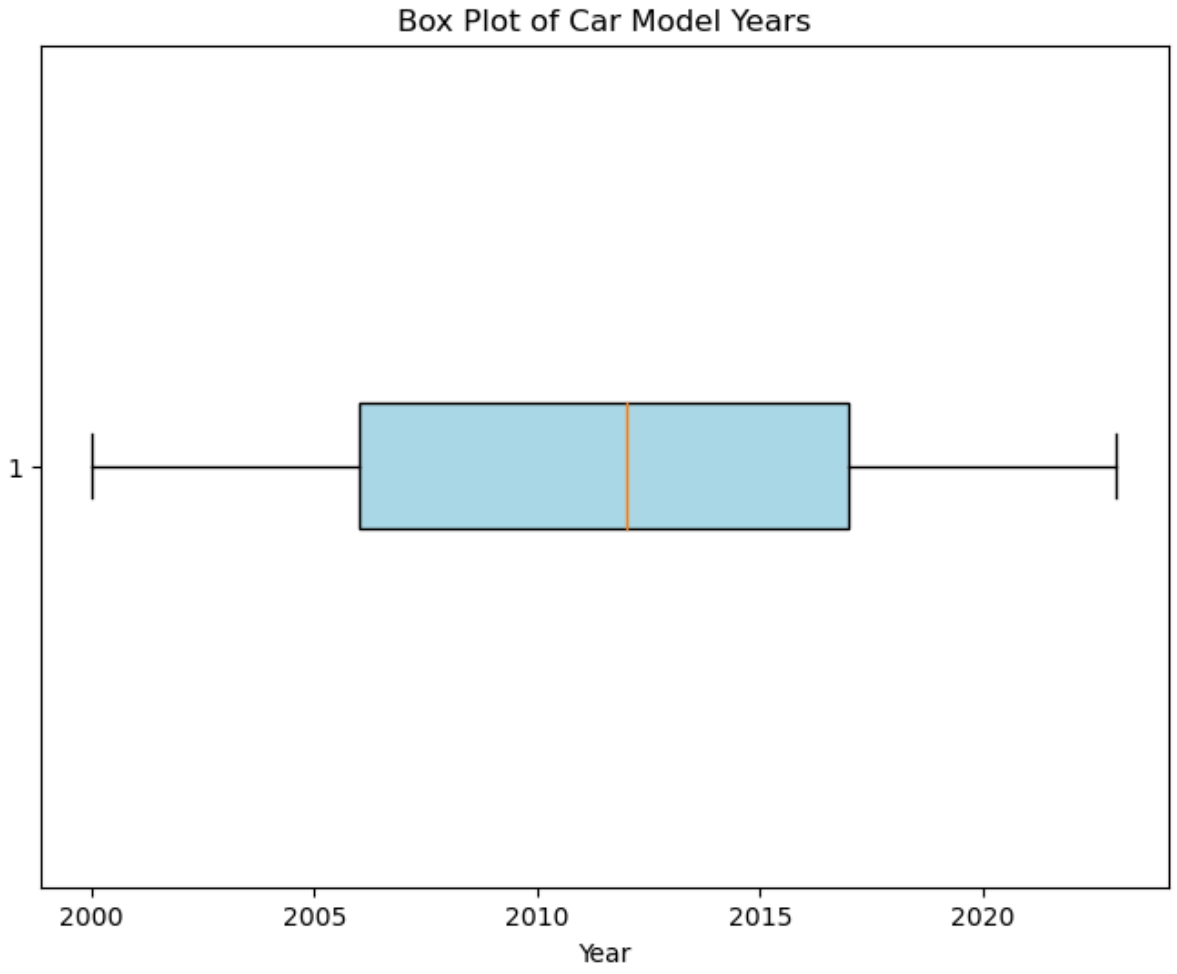


Box Plot

In [14]:
```
# Plotting a box plot for the 'Year' column
plt.figure(figsize=(8, 6))
plt.boxplot(df['Year'], vert=False, patch_artist=True,
            boxprops=dict(facecolor='lightblue', color='black'),
            whiskerprops=dict(color='black'),
            flierprops=dict(markerfacecolor='red', marker='o', markersize=5))

# Adding title and labels
plt.title('Box Plot of Car Model Years')
plt.xlabel('Year')

# Show the plot
plt.show()
```



In [ ]: