Assignment: data visualization challenge:

Quartiles, Outliers, Boxplots

# # Put treatments into a list for a for loop (and later for plot labels)

# drug\_treatments = ['Capomulin', 'Ramicane', 'Infubinol', 'Ceftamin']

# # Create empty list to fill with tumor vol data (for plotting)

# tumor\_volume\_data=[]

# #Loop through each drug in the treatment list, locating the rows in the merged DataFrame

# # that correspond to each treatment. Append the resulting final tumor volumes for each drug to the empty list.

# # Locate the rows which contain mice on each drug and get the tumor volumes, add to list

# for drug\_treatment in drug\_treatments:

# for i,row in tumor\_vol\_last\_timepoint.iterrows():

# cur\_drug=row['Drug Regimen']

# if cur\_drug==drug\_treatment:

# tumor\_volume=row['Tumor Volume (mm3)']

# tumor\_volume\_data.append(tumor\_volume)

# print(tumor\_volume\_data)

# quartiles = tumor\_vol\_last\_timepoint['Tumor Volume (mm3)'].quantile([.25,.5,.75])

# lowerq = quartiles[0.25]

# upperq = quartiles[0.75]

# iqr = upperq-lowerq

# print(f"The IQR is: {iqr}")

# lower\_bound = lowerq - (1.5\*iqr)

# upper\_bound = upperq + (1.5\*iqr)

# print(f"Values below {lower\_bound} could be outliers.")

# print(f"Values above {upper\_bound} could be outliers.")

# # # Calculate the IQR and quantitatively determine if there are any potential outliers.

# # # Determine outliers using upper and lower bounds