**Conclusions**

Four conclusions that we can draw from our analysis are that firstly, according to our “Summary Statistics” part, the least harmful drug based on its statistics is obviously the Ramicane drug. This is an accurate statement because this drug has the lowest values for all the statistics. On the other hand, the most harmful drug given its mean and its median seems to be the Ketapril drug. However, this one could be a less accurate statement, given the high variance, standard deviation and standard error of the mean of that drug. Secondly, according to our ”Bar and Pie Charts” part, there are approximately as much male as female mice, with 50.2% of male mice and 49.8% of female mice. Also, always from this part, we can infer that drugs were distributed quite equally, with each of the ten drugs used on respectively to 25 mice, except for the Stelasyn drug, which was used on only 24 mice. This implies that there was a quite equal selection between the drugs administered to mice as well as between male and female mice, which obviously makes this study more reliable and exploitable. However, thanks to the bar and pie charts that I plotted, I just would like to underline the fact that one female mouse with the Stelasyn drug administered to it should have been added to our data in order for the reliability of our study to be the highest. Thirdly, according to our “Quartiles, Outliers and Boxplots” part, we can firstly see that from the four drugs that we were asked to analyze based on the tumor volume of each unique mouse that it had during its last day of life, there is only one outlier, which is located in the Infubinol drug dataset. Moreover, knowing that this outlier of 36.321346 is very close to the lower bound of the Infubinol drug, which is of 36.832905, our data seems to be quite reliable. Therefore, we can conclude from our boxplots that the Ceftamin and the Infubinol drugs are more harmful than the Capomulin and the Ramicane drugs, as those killed more mice than the others. Fourthly, according to our “Correlation and Regression” part, for the Capomulin drug, which is one of the least harmful drugs, we can see that, based on our regression line model, heavy mice are harmed more than light mice when administered that drug. What makes us sure of that is the positive equation of that regression line, which was of “ y=0.89x +22”, but also the very high positive correlation of the mice weight and the average tumor volume, which is of a little more than 0.95. Lastly, if we even want to answer the Pymaceuticals Inc. company, we can tell them that the Capomulin drug is a quite performant drug as it increases the tumor volume of mice sharply less than most of the other drugs, knowing that it sometimes even reduces it, especially when it is used on light mice.