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GT Coding Bootcamp

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Matplotlib HW: Pymaceuticals

List three observable trends based on the data:

1) Of the four drugs under review, Capomulin and Ramicane produced the most desirable (smallest) ending tumor volume. Ramicane had the best median volume at 36.6 mm^3, compared to a close Capomulin median of 38.13 mm^3. The Capomulin regimen's box and whisker showed a tighter quartile range when compared to the Ramicane regimen. In the future, the firm should look more closely at these two drugs for production.

2) Statistics were produced for tumor volume, weight, and gender. These all provide useful insights towards the health and effectiveness of each regimen. What I would have like to see in addition to these assessment variables is a distribution of mouse age vs tumor volume per drug regimen. This could help the firm understand if certain regimens work better/worse for specific age groups. This could potentially translate to the production of multiple drugs to assist differing age groups better. This same method could be applied to gender.

3) In the box and whisker plot produced one outlier in the Infubinol regimen. This mouse had an ending tumor volume of ~38 mm^3. Weight, age, low original tumor volume, or gender could all be possible contributing factors to this mouse's

performance. The firm should be interested to see more statistics on this specific

mouse to understand why this mouse had such a greater possible decrease in

tumor volume compared to the rest of the mice within that group.