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To answer the question of what color will the vehicle most likely be in a given traffic violation, I counted the amount of violations each color got and compared them. Black, being one of the most popular colors was also the most likely color of traffic violations accounting for over 20% of them.

Chart, histogram

Description automatically generated

The next question about what model is most likely to be seen in traffic violations was found in the same way and it is 4S or 4 door sedans. Chart, bar chart, histogram

Description automatically generated

Next is something I was interested in exploring a little further. I guess you can tell me whether or not this is at all relevant

Chart

Description automatically generated

Obviously, this is not the best way to solve this problem. This is the only way I could think of to find a solution in the given timeframe. What I did is found the proportion of car colors in the US found in https://www.germaincars.com/most-popular-car-colors/ and compared them to the proportion of car colors that get traffic violations. The goal was to tell if the color of your car affected the likelihood you would be involved in a traffic violation regardless of the popularity of the color. This is similar to the homework one problem about complaints on the most popular item. There are many assumptions that need to be made.

Assumptions/concerns with data:

* Colors not included don’t matter
* Violation data is one spot in Maryland while color data is from all of the US
* Blue and Green includes light & dark shades
* No variable interactions are taking place

I found that having the color green appears to have a higher likelihood of getting a traffic violation