**MISA Coding Challenge**

Our MISA coding group was tasked to create a project with coding to analyze a problem with American gun violence. We took a look at data and datasets pertaining to mass shooting per capita, the different weapons in mass shootings, and the statistics of mass shooting around the world. Our goal was to identify trends and significant predictors.

**Technical Analysis:**

The first part of our project was to clean up data files and datasets. Through using the CSV function in Python as well as other statistical Python libraries, we were able to clean up and manipulate multiple datasets. Afterwards, we had to eliminate any missing data. We did this through a function in R studio.

Our project was divided in three folds. The first part was an analysis of whether if the US has a problem. We used Python and Jupyter’s modeling programs to show that the US far outpaces other developed countries in gun violence per capita. Furthermore, we analyzed the effects of legislations that were enacted in different American states.

The second part of our project was to analyze whether if gun types were good predictors of victim numbers. We used R studio to look up p-values, as well as build a predictor model for total victims given the type of guns most used in each state.

We created a Tableau dashboard to visualize our statistical data.

The final third part of project looked at the effect of mental health and shooting locations. We used R studio to look for significant predictors. The information was recorded in our PowerPoint slide deck.

**Conclusion:**

In conclusion, our data revealed a number of things to us. First, we discovered that gun laws can be more effective if they are drafted for specific guns. We would recommend that lawmakers and lobbyists focus on drafting legislation against specific firearms. In addition, entertainment venues are more likely to be subjected to violent shootings. With this information we recommend that the CIA gathers more intelligence on how to protect entertainment venues from these tragedies. Finally, we discovered that mental health is positively correlated with the number of victims killed. Reducing stigma around mental health should be high on the CIA’s and US government’s priorities.