APD Response to Resistance:

Compile available Austin, TX data (e.g. https://data.austintexas.gov/Public-Safety/R2R-2013/qxx9-6iwk) across different years to take a look at different crime across a map of Austin as time progresses. Also see what type of methods are used to subdue suspects that resist, and how that's affected by area, gender, race, and type of resistance. Examine complaint trends across different methods.

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Q1. What is the problem you want to solve?

A1. Aggregate Austin Police Department officers' responses to resistance of arrestees across multiple years of data provided by the open Austin government data initiative. Wrangle this dataset and then analyze it to provide general trends for arrests by location, gender, and race across time. These trends should help to identify subject of arrest conduct, whether the subject resisted, and how that resistance was responded to by police officers. An additional analysis should help to identify any trends in terms of police response based on amount of service years, locations where arrests that included resistance were most frequent, and individual officers since names are available.

Q2. Who is your client and why do they care about this problem? In other words, what will your client DO or DECIDE based on your analysis that they wouldn't have otherwise?

A2. Local Austin journalists, politicians, activists, and police officers should all find this information useful in terms of observing general trends. Past that, real estate customers and agents should find the crime data based on location interesting.

Q3. What data are you going to use for this? How will you acquire this data?

There are a number of CSV datasets that span across multiple years (with slight variances so wrangling will definitely be necessary) available from https://data.austintexas.gov. I can download and then aggregate it using Pandas.

Q4. In brief, outline your approach to solving this problem (knowing that this might change later).

I'll download and aggregate the data from the Austin, TX government portal, then combine the data and strip it of any outliers or duplicates. After doing so I should be able to perform a variety of analysis looking for covariance between the variables I've mentioned previously. I'd also like to try visualizing the arrests over time (perhaps by doing a scatter plot with a year-based hue) on a heatmap of Austin. I'll probably need to investigate aligning x and y coordinates with a map of Austin in order to do this effectively.

Q5. What are your deliverables? Typically, this would include code, along with a paper and/or a slide deck.

Ideally I'd like to produce a blog outlining the process I followed to prepare the data, then displaying the code and visualizations I prepare in a jupyter style presentation (code indentations intermingled with charts). This data analysis will lack an initial hypothesis until after I perform EDA, but after doing so, if I think any general trends are present I'd like to create a hypothesis, see if my suspicions are correct, and then have a results section that describes how

my expectations were or weren't met. Towards the end of the blog I'd like to include a conclusion that gives takeaways and possible steps forward if any problematic trends are identified.