# Motor Vehicle Thefts

## Objective 1

**Identify when vehicles are likely to be stolen**

Your first objective is to explore the vehicle and date fields in the “stolen\_vehicles” table to identify when vehicles tend to be stolen.

| **Tasks** |
| --- |
| 1.1) Find the number of vehicles stolen each year |
| 1.2) Find the number of vehicles stolen each month |
| 1.3) Find the number of vehicles stolen each day of the week |
| 1.4) Replace the numeric day of week values with the full name of each day of the week (Sunday, Monday, Tuesday, etc.) |
| 1.5) Create a bar chart that shows the number of vehicles stolen on each day of the week |

## Objective 2

**Identify which vehicles are likely to be stolen**

Your second objective is to explore the vehicle type, age, luxury vs standard and color fields in the “stolen\_vehicles” table to identify which vehicles are most likely to be stolen.

| **Tasks** |
| --- |
| 2.1) Find the vehicle types that are most often and least often stolen |
| 2.2) For each vehicle type, find the average age of the cars that are stolen |
| 2.3) For each vehicle type, find the percent of vehicles stolen that are luxury versus standard |
| 2.4) Create a table where the rows represent the top 10 vehicle types, the columns represent the top 7 vehicle colors (plus 1 column for all other colors) and the values are the number of vehicles stolen |
| 2.5) Create a heat map of the table comparing the vehicle types and colors |

## Objective 3

**Identify where vehicles are likely to be stolen**

Your third objective is to explore the population and density statistics in the regions table to identify where vehicles are getting stolen and visualize the results using a scatter plot and map.

| **Tasks** |
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| 3.1) Find the number of vehicles that were stolen in each region |
| 3.2) Combine the previous output with the population and density statistics for each region |
| 3.3) Do the types of vehicles stolen in the three most dense regions differ from the three least dense regions? |
| 3.4) Create a scatter plot of population versus density, and change the size of the points based on the number of vehicles stolen in each region |
| 3.5) Create a map of the regions and color the regions based on the number of stolen vehicles |