**Name: Cara Higgins**

**Period: 4º**

**Data : (Bold the dataset you used)**

* Exercise and Health
* **Games and Civic**
* Media and Behavior
* **School Safety**

1. Two Bar Charts depicting summaries of various columns that are of interest to you?

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| **Screen shot of Bar Chart #1:** |
| **Summary of what chart depicts and what you learned from this depiction.**  This bar chart depicts the frequency with which teenagers play games. The chart shows that there are very few teenagers who reported that they never play games, and the mode is playing games 1-2 times a week. The next highest bar was for 3-5 days a week, which may suggest that the surveyed teenagers were inclined towards the more specific answers, rather than vague options like “less often”. |

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| **Screen shot of Bar Chart #2:** |
| **Summary of what chart depicts and what you learned from this depiction.**  This grouped bar chart depicts the number of students who have and have not been bullied electronically in the past year. The bars are split by gender, so as to visualize any gender-based differences. Based on the graph, it seems like girls experience more electronic bullying than guys. |

\*Add more Bar charts if you want

2) Pick your most complex chart, describe the steps you took to create the chart. What process did you go through to extract the data?

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| **Screen shot #1** |
| **Summary of what chart depicts and what you learned from this depiction.**  These two pie charts depict the frequency with which people playing video games a) experience hateful actions and b) see others trying to stop hateful actions. The first chart shows that the majority of students who play video games have never experienced hateful actions, and less than one sixth feel like they often experience hate. However, there are some discrepancies between the two charts that may call into question the validity of the data. Based on the fact that more than half of students stated that they never witnessed others being hateful, racist, or sexist, it seems odd that only around a quarter of students stated that they never witnessed others asking for such actions to stop. It seems a little unlikely that more students have seen people asking others to stop hateful actions than they have the hateful actions themselves, so it’s possible that a different subset of students answered each question or that students answered inconsistently. |
| **What process did you go through to extract the data?**  I created a parsing function that, given a descriptor and data set, would find the relevant column of data by locating the index of the descriptor in the first row of the data set. Then, I had a for loop iterate through the data in that column and count the number of occurrences of each unique response. The parsing function then returned the list of responses and counts, which were then utilized in a function that formatted the data in a dictionary so that it would be displayed as a pie chart.  Because I wanted the two pie charts to have the same legend (so that light pink would stand for never on both of them, rather than sometimes on one and often on the other), I created an optional parameter in the parsing function that allowed for a list of already known responses to be fed into the function. This meant that the responses to the first question would be listed in the same order for the second one, resulting in the same legend. |

3) Screenshot of other chart(that isn’t a bar chart) - Optional

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| **Screen shot #2** |
| **Summary of what chart depicts and what you learned from this depiction.**  This scatterplot shows the number of days students skipped school for fear of personal safety (days unsafe) plotted against their age, with the size of the dot representing the number of students who gave the same answer for both age and days unsafe. Although this chart was intended to display changes as students aged, it seems that the variance between age groups can largely be attributed to the variance in sample sizes for each age group. |