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# Assignment #1

Halloween Visualization

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## Halloween Visualization

This module's assignment is to create a data visualization using data collected about trick-or-treaters in Cincinnati, OH. This can be a single chart, a collection of charts or a dashboard, whatever is necessary in the story or analysis that is shown.

### The Data

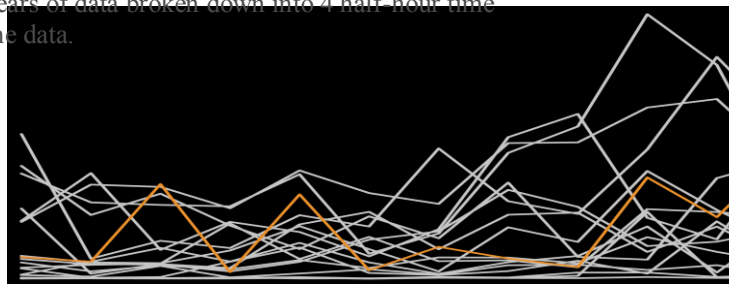
- The data is available in two formats
  - "Halloween data for Excel 2016" is a crosstab which is ideal for creating visualizations in Excel. Numbers in data file for Excel are **cumulative**.
  - "Halloween data for Tableau 2016" is unpivoted which is ideal for creating visualizations in Tableau. Numbers in data file for Tableau are **not cumulative**.
- Data has been collected since 2008 and is updated annually on the DataPlusScience.com blog.
  - <https://www.dataplusscience.com/HalloweenData.html>
- The trick-or-treat count was recorded in 30 minute intervals.
- The night of trick-or-treating has always been on October 31st each year (some neighborhoods change the night of trick-or-treating).
- Official trick or treat hours are from 6pm-8pm, but there are often "stragglers" past 8pm that are not turned away. These stragglers are counted in the 8pm-8:15pm time slot. There has never been a trick-or-treater past 8:15pm.
- The type of candy did not vary year by year. It is always a general mix of candy purchased in bulk variety bags.
- Location of home:
  - Neighborhood: East Walnut Hills/Evanston
    - being a corner house on the neighborhood border likely increases the number of trick-or-treaters
  - City: Cincinnati
  - State: Ohio
  - Country: United States
  - Zip Code: 45207

### The Assignment

1. Determine a story or goal for the visualization.

Examples:

- Homeowner dashboard summarizing Halloween
  - Forecast future trick-or-treaters or estimate future candy need
  - Explore variation of the number of trick-or-treaters year by year
2. This is a very simple data set. There are only a few years of data broken down into 4 half hour time blocks with cumulative totals. Think broadly about the data.



Examples:

- The data is time series data – any additional choices?
- What comparisons can you make?
- What table calculations can be made?
- What additional data can be appended from other sources to help tell the story or complete an analysis?

NOTE - be very careful because there are many pitfalls at this step.

### 3.) Build a data visualization

*“I like the exercise because it is not too large a dataset it enables students to work with Tableau, mash datasets, and apply some of the first principles of data visualization.” - Martin Wielemaker, Professor of Strategy and Entrepreneurship, University of New Brunswick*

