

ARCH-7210: Idea Seminar | ARCH-5050: S.T.A.P.A.C.D

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ASSIGNMENT 4: Data Wrangling (15 pts)

Due: 10.28.21 AT 2:29 PM

Brief:

This assignment focuses on searching for datasets and then on data wrangling, a process in which the dataset is cleaned and unified based on our needs.

Problem 1: (5pts)

Using the Cars dataset (cars.json), create a list of cars with Horsepower less than 180. Each item in the list should include the car's name, the number of its cylinders, and its motor's torque (horsepower). Example: `A[0] = ["ford galaxie 500", 8, 198]`

Problem 2: (5 pts)

Define a function that, using the **stocks.csv** dataset, returns the name (symbol) of the stock and the date when its price was over \$25 per share. The price should be included in the results as well.

Example: `>> ("MSFT", "Feb 1 2000", 36.35)`.

Problem 3: (5 pts)

Find three datasets related to Charlotte. The datasets can be in CSV, JSON, or GeoJSON format. When choosing a dataset, think about why these datasets are important to you? as an architect and designer, what features are more attractive to you and why? How can they be represented in Rhino medium? This is an exercise in searching for data. You may also choose these datasets for the second project as we begin working on them in the incoming weeks. Think about how you can relate various datasets to each other (join different tables). To merge (or join) two different tables, you need a common feature to join based on that feature. For example, you may join the list of students' grades and their tuition payments based on their student IDs. **Prepare an informal presentation for the next class.**

NOTE: All the datasets required for Problem 1 and Problem 2 are on the Canvas page in the Week 8 module. They are in the Zip package.

Resources for data:

- <https://data.charlottenc.gov/>
- <https://guides.library.uncc.edu/statisticaldata> : This is a link to Atkins Library's website where it redirects you to various data venues. This is a great resource to find venues for data.