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Kismet Visualizer Report

Github Link: <https://github.com/jeremylesmana/d3-kismet-charts>

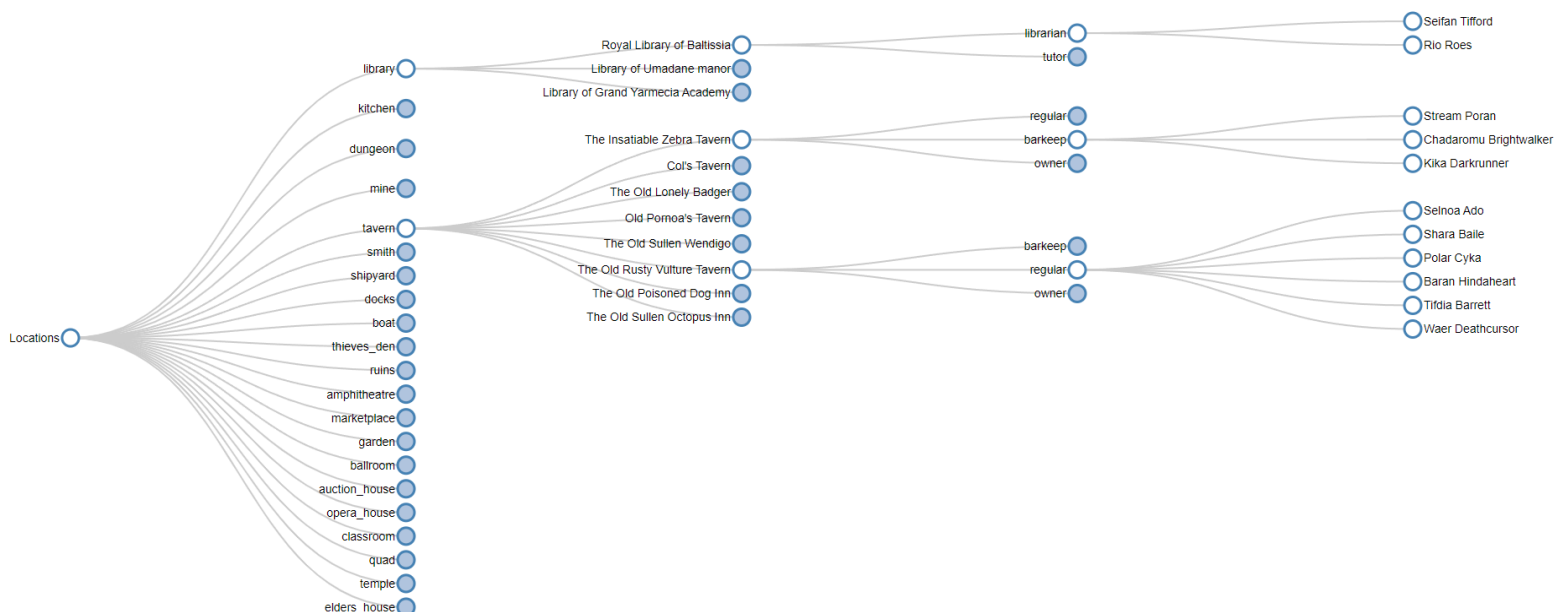
Throughout the semester, I have worked on a visualizer for the Kismet Language by Prof. Summerville. This is accomplished by using the D3 Javascript library by Observable. The goal was to convert a Kismet population and rules file, generated by a script that produces Kismet to JSON and visualize it into a D3 interactive chart for easier visualization in terms of hierarchical structure. There were two challenges that I faced while finishing up the projects: one of them was to convert the given JSON structure file into something that the D3 format would accept and create into a tree and chart, and another challenge is to create a dynamic file picker that would convert that file into the JSON instead of grabbing the JSON from a static link. Throughout this semester, I have worked on two separate charts that would work with the JSON file: a collapsible tree and a sunburst chart.

Collapsible Tree: The collapsible tree was used to visualize a Kismet population file.

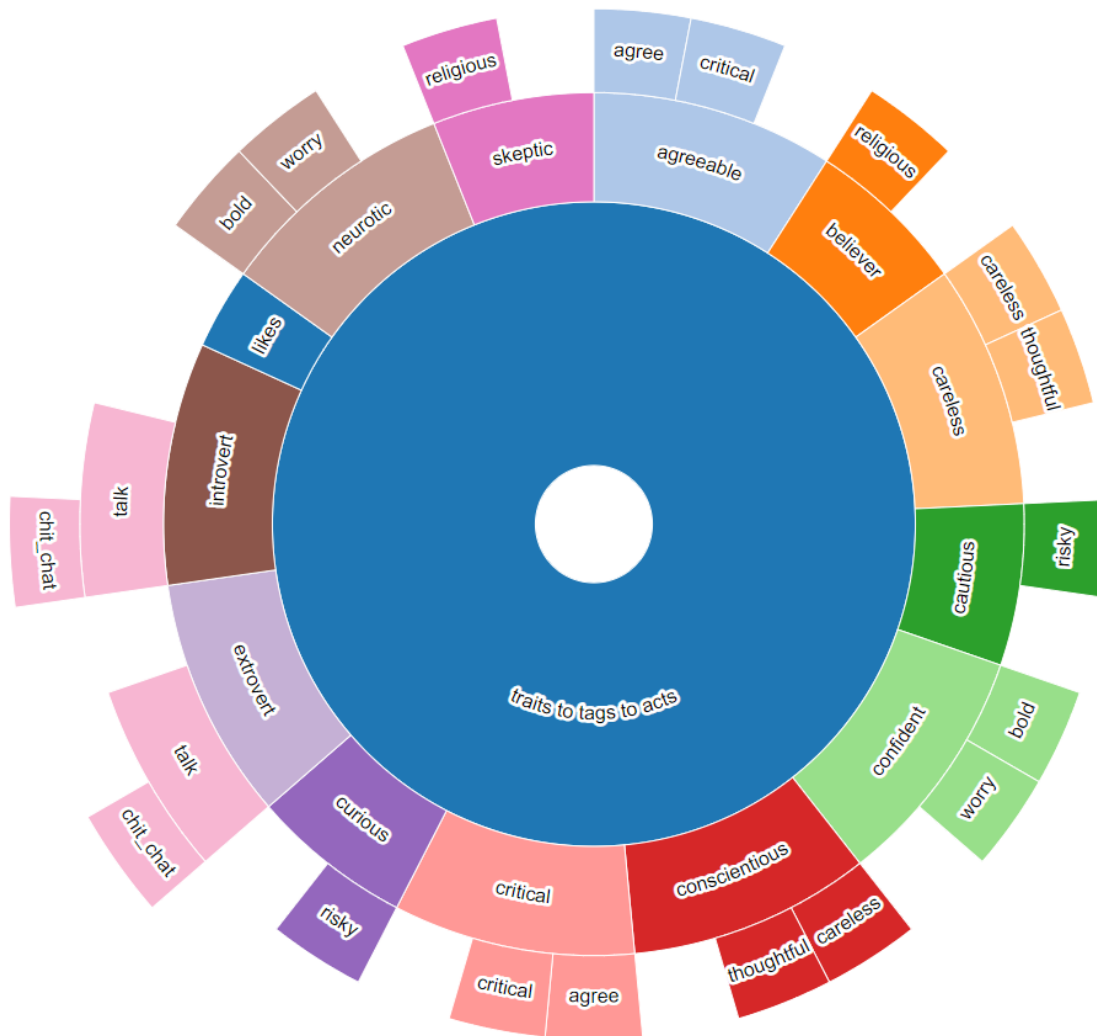
The collapsible tree would organize the chart in a following manner:

Locations → Location Type → Location Name → Types of occupants → Occupant's name.

Here is an example on how this would work.



Sunburst Chart: The sunburst chart was used to visualize Kismet characteristics including but not limited to actions, traits, and tags. The Kismet sunburst chart that I made for the given time was going from traits to tags to actions. Here is an example on how this sunburst chart would generate:



The chart is completely interactive and clickable as D3 has done so for ease of use and user-friendliness for the user.

In conclusion, this semester of senior project with Prof. Summerville definitely provided me a challenge and a valuable lesson. I have managed to implement the D3 charts shown by Prof. Summerville elsewhere in my other classes. I look forward to working with Prof. Summerville in the upcoming future whether its for Kismet or other projects.