For the first half of this discussion board, I wanted to look further into geocoding and its importance for visualizing spatial relationships. First, let’s define geocoding for us. Geocoding is the process of converting addresses (like street addresses) into geographic coordinates (like latitude and longitude), which you can use to place markers on a map, or position the map. (Sharma, 2018) Because we are able to geocode locations, it allows for people around the globe to use geographical information systems to visualize data on a map and perform complex spatial analysis to see all the possible relationships that are hidden with layers of information. (Sharma, 2018) Like with many visuals, you need some detail to explain the reason why they appear the way they are. For example if you had a scatter plot of random plots or lines in a blank scape, it would offer no information to those that would view it without some form detail such as the x-axis and the y-axis. In the case of spatial analysis, geocoding provides that detail by giving depth to the markers on the map. With a simple collection of plots in an area, it can contain much more information once these plots are given coordinates such as longitude and latitude which can then turn into addresses. Therefore, once we have the addresses, we can place them onto a map of possible a city showing which areas order the most pizza and areas that almost have no orders at all. With geocoding, it allows us to create more context within a spatial analysis and other applications.

Moving on to my second half of my discussion board, I wanted to look at the options available for creating automated maps. Since I was discussing maps, I thought it would work to provide information on how to create these maps in an efficient manner. With the options available, people and companies will have several options that they could use in their time of need. The number option that I have come across in my search is QGIS 3 which is open sourced application for free mapping. The big reason that it is ranked highly over other mapping tools is that it now comes in 3D allowing for the same potential for analysis. (GISGeography, 2020) However, the second mapping option, Quantum GIS, seems more like a useful tool. I say this because it provides the user the possibility of automating map production, processing geospatial data, and generate note-worthy cartographic figures. (GISGeography, 2020) But, like all tools, it does not come with everything that you would ever need from a software. However, Quantum GIS, allows for numerous plugins to be added to the tool that are developed by the QGIS community. (GISGeography, 2020) Because of the potential of the incorporating more aspects to the software than is currently present, I personally believe that this the better option to be handle all different types of analyses that someone may come across in their work. Even though I did not list all software for automating maps, it is important to know that there is numerous options for how you would to construct your maps for an analysis.

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