

## Assignment #2

I chose to make my ontology on Canadian doughnut chain restaurants and the doughnuts they make and sell. I wanted to limit the domain to Canadian doughnut chains because I am most familiar with this style of doughnut and because my partner and I have considered opening up a doughnut shop. Therefore, I am intrigued by seeing types of doughnuts sold in Canada and the ingredients they are made from. I decided on the range by including the names of Canadian doughnut chains, and limited it to popular varieties they sell, as well as the composition of the popular doughnuts, both classic and specialty. By creating relationships (object properties) between the domain and range, I was able to imply when ingredients are being used, and what doughnut chain sells the doughnuts. For example, a Boston Cream doughnut is always prepared as a yeast doughnut, filled with Boston cream, and iced with chocolate icing and is sold at the Canadian doughnut chains Tim Hortons, Robin's Donuts, Country Style, Krispy Kreme, and Baker's Dozen Donuts. The ontology was particularly useful to see the relationships between doughnuts that are often named after their filling, such as Boston cream and Bavarian cream and their ingredient composition. Creating metadata by adding annotations also helped to clarify some of the relationships. For example, I stated that ring doughnuts are disjoint with filling because they have a hole in their centre and are unable to be filled. I set the boundaries of the domain description to only include popular varieties of Canadian doughnuts and where they are sold to keep it concise. Upon looking further into doughnuts, there are many varieties that differ significantly depending on their country of origin and I wanted to set parameters for the ontology to apply to my interest of opening a doughnut shop in Canada.