Andrew Plum

Professor Ma

CS 489

11/5/2024

SPARQL Query Report

1. “State the topic that you select and the purpose of your query.”
   1. My topic is figureheads of the executive branch in American history. My query returns a list of US presidents and vice presidents, the office they held (either president or vice president), the political parties they were affiliated with, and the start and end of their term in the specific office they held.
2. “Describe the process in the design of your query: e.g. How you find relevant classes and properties in the SPARQL endpoint of DBpedia? How you select the classes and properties that can be used to compose your query? How you design different parts of your query?”
   1. I knew I wanted to return people in my query so I started looking at the web page: “<https://dbpedia.org/ontology/Person>”. I found that a person could be a “dbo:president” or “dbo:vicePresident”; I then returned a query of subjects whose rdf:type were these objects. I was then able to look at some specific presidents and vice presidents because these were the subjects which returned however the list seemed to be too inclusive as it contained subjects who weren’t leaders of the US so I tried to narrow it down. I eventually came across rdf:types called “yago:President110467179” and “yago:VicePresident110751265” where the subjects with this type was a better list. From there, to continue building the query, it mostly was an iterative process of looking for what relevant pieces of information I could find on dbpedia to solve the subproblems I was trying to do to complete my overall goal of the query.
3. “Explain the meaning of the variables you use in the SPARQL code. Describe how you organize the sequence of your SPARQL code to achieve the purpose of the query.”
   1. In my query, the variable “instance” which will later be renamed “US\_Politician” was really the central variable of the query as it was the first variable I defined in the query and most of the other variables involved being defined by the variable “instance”. Most of the other variables were used to better define and give context to what “instance” was. The organization of the query is first initially and somewhat narrowly define “instance”, then use a UNION to make sure instance is a vice president or president type, then use “instance” to define other variables to be used. These other variables like “office” and “comment” are used to filter out the records which are US presidents or vice presidents, and the variables “tenurePeriod” and “tenureOffice” are used to define the start and end of the president or vice president office held by the US politician, “TermStart” and “TermEnd” respectively. Finally, GROUP BY and ORDER BY are used to organize the rows in a way where it is easy to grasp the data returned.

SPARQL Code:

ADD CODE!!!!!