Group 26: SPARQL and RDF Mining

24/02/2017 **Anirudh Pillai**, Aksel Cakmak and Xiaofeng Fu

Overview

We did some load testing on our current GUI and redesigned the way search works. We also changed our architecture so that our GUI can handle millions of rows of data. We started grouping nodes according to properties as well.

Meetings Summary

Meeting 40 **Team** Meeting (13/02/2017)
This was reading week so we had a Skype meeting to decide what we'll be working on. We decided on getting our data visualisation to show some form of grouping. We also decided that we needed to do some form of load testing as our GUI needed to handle data in which an instance could be linked to millions of other instances. We allocated our tasks as follows:

- Write scripts for load testing (Anirudh)
- Update data visualisation to show grouping (Anirudh)

Meeting 41 **Client** Meeting (16/02/2017)
We got feedback from the client for our version of the product. We discussed what they found interesting, like visual clues for knowing what's happening, or seeing connections to other entities, or having a better idea of what's important. We also talked about some more features that would be appealing, like enhancing the search capabilities, better ways of guiding the user. They also pointed out the fact that the real database would have millions of entries, essentially telling us that we should take that into account for our next iterations and adapt our features accordingly.

Meeting 41 **Team** Meeting (22/02/2017)
We had now completed the grouping of nodes. After doing some load testing we realised that our GUI's pagination worked well for millions of rows of data but our real time search was very slow. In order to combat this we had to come up with a new design for the way we were creating DOM elements using React. We decided to research some pre existing libraries and techniques to create interfaces to handle huge amounts of data.

Meeting 42 **Team** Meeting (22/02/2017)
We found good React techniques and libraries, including react-bootstrap-table, which allowed us to change the way we were doing pagination and search. We repeated our load testing, using our load testing script, and found that our GUI could now handle classes with millions of instances. Our pagination worked perfectly along with our redesigned search. We had also improved our search to handle Regular Expressions which allows the user to do more powerful queries.

Meeting 43 **Team** Meeting (24/02/2017)
We brainstormed some ideas for improving our instance view. We decided to have two separate tables on the instance view to show the linked instances and a separate one to show the linked values. We also decided to add some filtering properties to this table so that the user can then search for linked instances/values with a specific property using our pre built Regex Search function.

Tasks Completed

- Started grouping nodes and properties.
- Load Testing
- Redesigned Search Infrastructure
- Search and Table for Instance View (User can now search in properties and nodes linked to an instance)
- Added Regex to Search

Plan for next two weeks

We will be doing some more load testing and also looking at new ways to filter and sort the data. We also aim to improve the grouping for nodes and properties. We feel we have made good progress over the past two weeks despite having reading week as well.

Individual Sections

Anirudh Pillai

I was responsible for doing the load testing which gave us critical insights. I redesigned how the search worked and made our GUI capable of handling millions of rows of data. I also changed the data visualisation to group nodes with similar properties. Lastly, I also redesigned the instance views with new tables for showing the linked instances and values, and also made this table searchable.

Aksel Cakmak

Worked on pagination for the dataset results.
Defined our value proposition much more clearly.
Added some features in the instance view page to make navigation more powerful.
Did some styling too. Recorded the meeting in notes, and helped direct the project direction with the insights we got from the notes.

Xiaofeng Fu

In this week I tried to find a way to sorting and ranking the data.