

Deliverable 4: Self-Reflection Report

Andrew Mc Donald - 18318748

Initially, as we all worked closely together on what was, very much, the same tasks, we all contributed equally to the selection of datasets, choice of domain and creation of the project's structure. When it came to implementation, the polar opposite was true. I was in charge of the design of the ontology and I believe that's where my largest contribution lies along with helping to create the SPARQL queries.

Having spent most of my time dealing with ontologies I can see both strengths and weaknesses in the same methodology. The strength of the work I did is that as there is no "right" way to form an ontology, there is plenty of room to express exactly what you'd like without any constricting boundaries. On the other side of the coin, the weakness in my work came from constantly thinking I was finished only to revisit an hour later as there were updates to mappings or I had had another idea as to a class. One thing I have learned, or rather I knew but is now reinforced thanks to this, is that constant communication among the team is a top priority. Once we were all talking or messaging each other, it all seemed to finally slot into place.

Tanmay Kaushik - 18308341

This project has been a wonderful learning experience for me. Over the course of the project:

1. I took the lead on data selection/application scope for choosing the datasets.
2. I also took the lead on Mapping and Uplifting and mapped three of the five datasets and helped with the other two datasets.
3. I wrote 2 SPARQL queries and helped on few others using GraphDB and provided support for the user interface.
4. I contributed to every other part of the project such as designing competency questions.
5. I was also responsible for documentation, mid-point presentation, managing the GitHub repository for version control and scheduling meetings.

Reflecting on my contributions, I believe that the mappings and uplifted outputs worked very well with the user interface and simplified the process of querying. While developing, I have changed each mapping countless times to match the ontology and the user interface. Additionally, due to my prior experience with SPARQL queries and complete knowledge of the mappings, I was able to help my team design complex queries and structure my mappings accordingly. At the very start of the project, I proposed the topic of presenting housing data and its relation with interest rates, loan approvals, etc and found datasets that contained this information.

Our application could have been more complex if we could combine our project with larger ontologies and datasets like WikiData or YAGO to produce more complex results. But, due to time constraints and our ontology structure, it was difficult to implement that. I also wanted to add a SPARQL editor to our User Interface, but due to lack of time, the functionality was not added.

David Kavanagh - 18327890

My contributions to this project involve:

- Choosing the initial topic & dataset for our project.
- Creating competency questions that could be written using SPARQL queries.
- Interim progress presentation
- Altering our project due to demo feedback by including the school datasets & creating a new link between our datasets.
- R2RML school & interest rates mappings.
- Technical Design Report outline & conclusion.
- Team organisation.

Strengths:

Using the ontology model to create the mappings for the datasets mentioned above. Explaining the process of R2RML mappings to Tanmay so we could both contribute to the development of our mappings.

Understanding potential areas of improvement based on the feedback received from our interim progress presentation & providing solutions to improve our project. Positive group communication organising our workload & assigning tasks relating to each member's area of expertise.

Weaknesses:

I believe that I could've had a greater contribution to the team when creating the SPARQL queries. Improved time management so that additional features could've been added to our project. Greater assistance & collaboration when designing the ontology or mappings may have prevented the number of times we altered our ontology to conform with our updates.

Isobel Mahon - 17331358

My Contributions:

I was the lead on UI and Query Design. I did all of the UI work, designed 8 of the 10 queries, as well as helped design competency questions and write the technical report, and contributed to discussions on everything else.

Reflection on my Contributions:

Overall, I am happy with how the UI came out. I think the query editing is intuitive and allows for a much more useful application than if the queries were entirely predesigned. Making them editable in this way was difficult, but I'm glad I did it.

There are further improvements I would have liked to have made if I had more time, mainly making more parts of the query editable, but ultimately I decided it would be a more effective use of my time to leave it as it was and focus on the queries.

The dropdown for selecting queries works well, and is easy to use and flexible. The results display is clear and easy to understand.

The queries I designed are 1-6 and 8-9. They are based on the competency questions we designed early on in the project, although some had to be edited to work with changes that had since been made to the ontology and mappings.

Reflection on Group Work:

I think we worked well as a team overall, although there are things I would do differently. We spent more time choosing datasets than we probably should have, in retrospect it would have been a good idea to get that done quickly so we could have more time to work on the ontology and mappings.