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Individual Report

Design Choices:

Ontology Structure

- Flexibility: I initially considered making procedures identical for cars and parts/accessories to streamline the ontology. However, I recognized that this approach would limit flexibility and cause the loss of critical information, such as specific model and make details.
- Transitive Subclass Relations: I designed the Item class to have a subclass relationship that is transitive, allowing for complex item hierarchies. Basically, it's to enhance the ontology

Knowledge Graph Implementation

- RDFLib: For the knowledge graph, I utilized RDFLib to manage the data with triples representing the information

Application Development

- I chose Flask because I already had experience with it, making development easier. It's straightforward to test and visualize, which I appreciate. Plus, I find it more aesthetically pleasing than other frameworks, helping me create a user-friendly interface.

- Considered other options, such as a simple command line interface, but ultimately sought more complexity and interactivity in my application which the command line didn't provide.

Tools Used in the Project:

Tim French was undoubtedly the most important and valuable asset. His workshops especially as I ask the most basic questions.

In addition to Tim's support, I found the lecture slides to be a great resource. They helped reinforce what we learned in class and were a handy reference while I was developing the project.

Plus, hearing from previous students who took this unit was really helpful, they shared practical tips and experiences that shaped my approach.

For future projects, I highly recommend leveraging the same resources. Meeting in person is a must, don't just rely on emails or chats. Being face-to-face makes a big difference.

Time Allocation Across Project Tasks:

It's a bit challenging to estimate the time spent on various tasks since I frequently moved back and forth between developing the ontology and the Flask app. However, I believe the majority of my time was dedicated to refining the ontology. In contrast, the queries and parsing function were the quickest tasks to complete.

Areas for Improvement

One area I wish I could have improved upon is the reasoning capabilities of the ontology. I felt I could have added more rules to enhance its functionality, but due to time constraints and working solo, I couldn't fully realize this potential. Additionally, I would have liked to improve the Flask application, particularly in terms of styling and the functionality for adding and removing data.