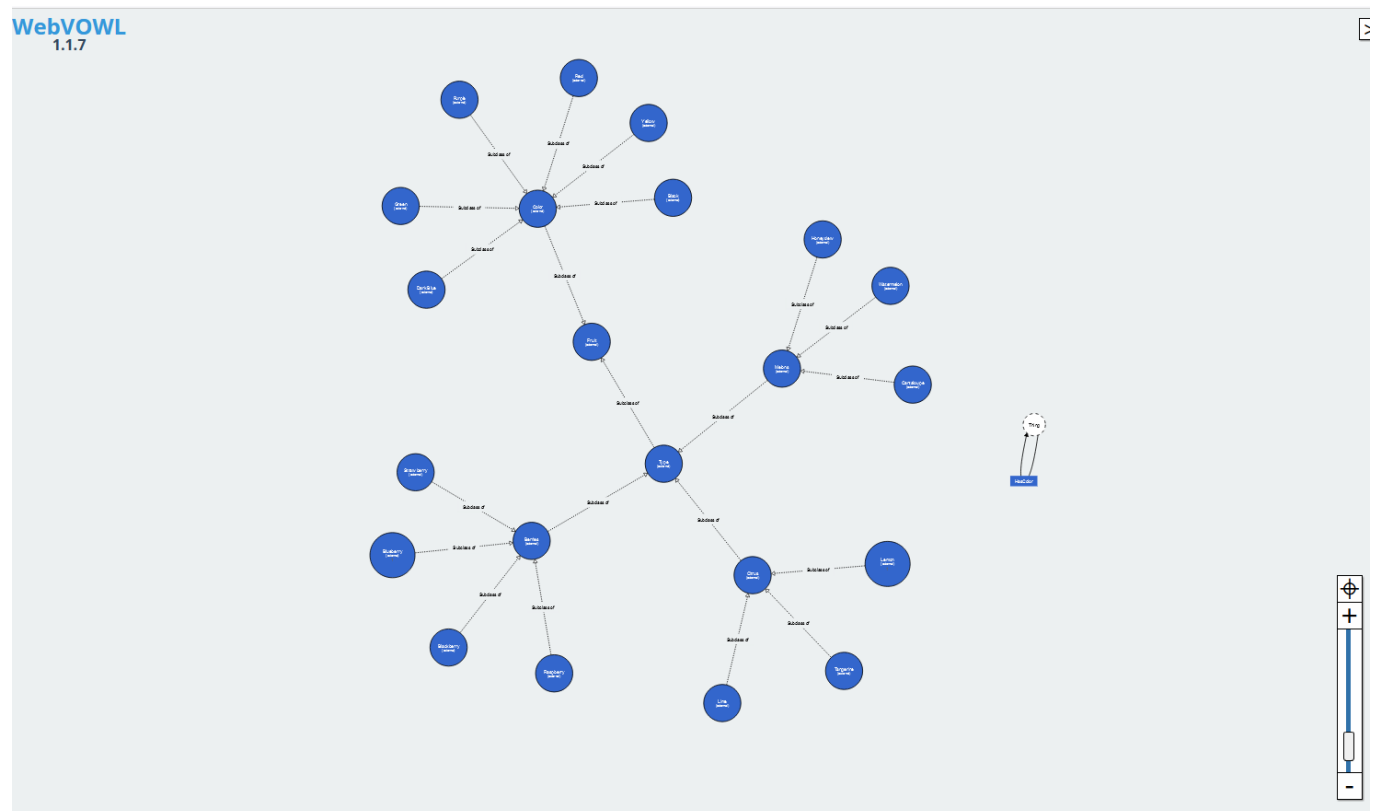Nelly Nikulina

October 26, 2022

INFO 590

Assignment 3

Part 1: Ontology creation

1. I've created an ontology of Fruit where I categorize the fruit by type and colors. The fruit ontology is necessary when we are trying to organize a fruit section in a store. For example, in order for people to find different kind of fruit, the ontology helps to navigate through the fruit department easier to find citrus, melon or berries fruit. Ontology helps to locate necessary fruit under a specific class or category of the fruit. The ontology is important to use to organize the objects into different categories to simplify the search later on for a particular item.

2. OWL code generated by Protégé and VOWL screenshot:
   - **VOWL screenshot of the Fruit Ontology Creation**

- **OWL code .txt file below**:

Fruit_ontology_NNikulina.txt

| Classes ☰ | Properties ☰ | Individuals ☰ | Comments ☰ | Changes by |

Class Hierarchy ✖

⚥⁺ ⚥ˣ 🔍 ⚏

▼ ⦿ owl:Thing
  ▼ ⦿ Fruit
    ▼ ⦿ Color
      ⦿ Dark Blue
      ⦿ Green
      ⦿ Purple
      ⦿ Red
      ⦿ Yellow
      ⦿ Black
    ▼ ⦿ Type
      ▼ ⦿ Berries
        ⦿ Blackberry
        ⦿ Blueberry
        ⦿ Strawberry
        ⦿ Raspberry
      ▼ ⦿ Citrus
        ⦿ Lemon
        ⦿ Lime
        ⦿ Tangerine
      ▼ ⦿ Melons
        ⦿ Watermelon
        ⦿ Honeydew
        ⦿ Cantaloupe

Part2: Thesaurus Scavenger Hunt

✓ 2.1 The Thesaurus I selected to explore is 'The Cook's Thesaurus' because I enjoy cooking and good food.
- A single term concept:
  - **Grains**
  - **Vegetables**
  - **Dairy**
  - **Fish**
  - **Meat**
  - **Fruits**
  - **Dough**
- A double term concept:
  - **Grain Products**
  - **Baked Goods**
  - **Baking Supplies**
  - **Asian Noodles**
  - **Wheat Flours**

✓ 2.2 I skimmed through the over a 15 screens and subjects within each class. I didn't find anything odd that stood out to me or didn't match the Z39.19. All subject strings were identifying the terms accordingly by having the correct items within the subject categories. I believe that The Cook's Thesaurus is very well planned out and the relationships are clearly made between them. For example, the liquids have juices within them where there are juices made out of different fruits, which are listed in the description of each juice, therefore, the person can use the thesaurus to navigate to the fruits subject to identify the fruits to make a particular juice.

Part 3: Thesaurus

✓ Visual thesaurus gives an ability to explore the branches of each category from the word 'cat'. Once I clicked on the green or red button, the branch would break off and create a single connection between a word 'cat' and the definition of that relationship with a few correlated subjects: for example, such as whip, welt, trounce, flog. Red button gives a relationship of the word 'cat' for nouns and green button gives a relationship to word 'cat' for verbs. The types of relationships are presented for a word 'cat' are a type of different cats, type of vehicle, type of action, type of identifying a behavior of a woman and or a young guy.

✓ Positive aspects for a visual thesaurus:
- Gives you a visual of the relationships of the tree's branches
- Gives an ability to hear the pronunciation of each term/subject
- Allows the user to branch off each category individually to explore further
- Allows the user to explore a different word that correlates to the search

- ✓ Problematic aspects for a visual thesaurus:
  - o Confusing when different categories are mixed related to the word searched
  - o Relationships are unclear when verbs and nouns are shown for the word
  - o Too clustered as a map and visually not satisfying
  - o A user can navigate too far from the search by clicking on different terms in the relationship which is not helpful at times