Complexities of this project

# Logic operations (create data model to support this)

* **Reversing datums to reduce datum duplication**
  + e.g. if X is father of Y, then Y is child of X
  + e.g. if X is father of Y, and Y is female, then Y is daughter of X.
* **Extrapolation of datums**
  + E.g. if X is father of Y, and Y is father of Z, then X is grandfather of Y
  + E.g. if X is grandfather of X, and Y is father of Z, then Y is son of X.
* **Efficiently-searchable, as is used in the generation of the family trees and the interface data cards**
* **May require proofs (hopefully not) or logic statements**
* **Reference COMP1600 logic operations**
* **Use these logic operations to automatically generate the family tree structures according to the context of the datums request.**

# Convoluted family trees in Greek Mythology

* **Normal family trees**
  + Single primary (or a tuple) root
  + Generally conforms to two-parents to each child.
  + Few to no incestual connections
* **Greek Myths family trees**
  + Multiple primary roots depending on the context
  + Extreme and frequent incestual couplings
  + Multiple types of parent-child relationships
    - Two parents to a child
    - Two human parents (mother + stepfather) and a God parent
    - One parent that gave birth through parthenogenesis
  + Potentially make the different types of relationships obvious
    - Human + Immortal
    - Species + Immortal
    - Human + Human
    - Species + Species
    - Object + Immortal
* **Need to make the graph obvious that it’s still a “family tree”**
  + Cannot be a typical DAG structure, probably needs to be top-down to conform with intuitive family tree style.
  + Make cousins obvious
  + Make relationships between siblings obvious (highlight particularly weird relationships)
* **Will need to use concepts about DAGs, trees from Algorithms COMP3600.**

# Interface design (+ user evaluation)

* **Show data cards about each of the entities in Greek mythology**
  + Use the datums to list their relationships (family and generations)
  + Kind of like a facebook profile page?
  + List location, marriage, name, associations
  + Passages they were mentioned.
  + See Greta’s data card photos
* **Conduct a user evaluation to determine (what?)**
  + What the user type is
  + What they expect to see on this kind of website
  + What they would use it for
  + What they would want to see in the graph
  + What they expect from a family tree (maybe compare different tree types and ask them to rank them aesthetically)

**Alternatively (on the side, or in case the original idea isn’t completed in time)**

Create a tool where manual inputs in the interface of “X is son of Y” etc. produces a genealogical chart on command.

Greta will send me a document with the genealogical complexities of myths (with references from Apollodorus)