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CS 463  
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## Prolog

### Notes:

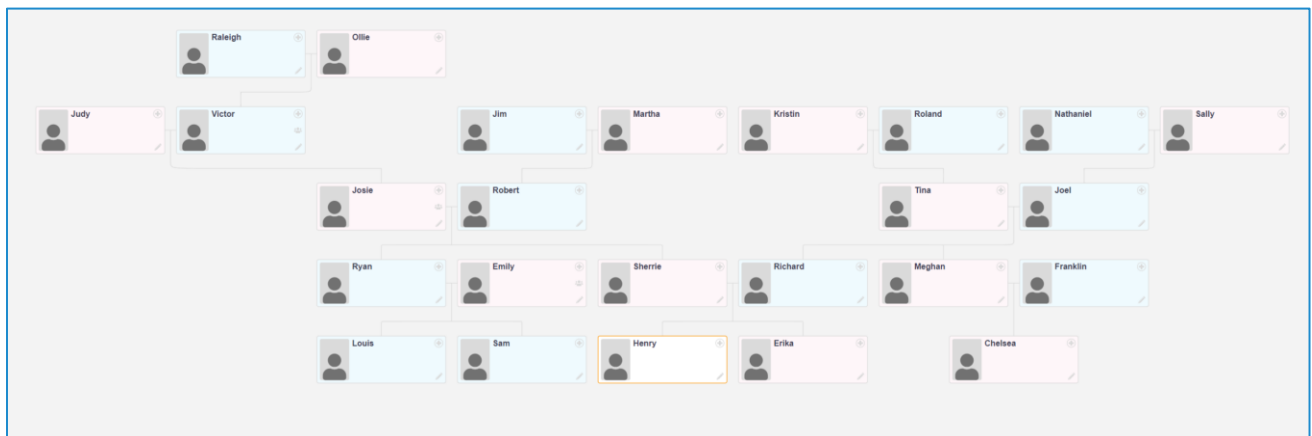
The command `nthcousinkremoved(X,Y,N,K)` only work when you specify the values of N (nth cousin) and K (k-times removed). The command `kthchild(C,P,K)` also only works when you specify a P (parent). If these value are not specified, the code does not run which I find weird because when they are left as variables, they should iterate through all possible people and values, but it does not for some reason. The code works when you specify those values, and it is accurate. Another thing is that it does show duplicates, but I am unsure how to remove them.

To run the code, I used swish prolog application on their website instead of the downloaded one. This is because it was easier to have the queries iterate over the variables in this application. You can delete the code that is default there and copy and paste my code into it and run the queries in it if you would like to use that as that is what I used to test it. I will provide a link to the site below:

<https://swish.swi-prolog.org/p/prolog-family-tree.pl>

### Genological Database

For this assignment, I created a family tree of 46 people. Below is a picture of part of the family tree. Note, not everyone is on the tree because the software does not show some of the family members due to lack of space.



This gemological database can be constructed with the facts provided in the code

### What Did I learn

Through this assignment, I learned how to define and create family relationships in different ways. I have never seen prolog before, so it was interesting to program with this new language. I liked playing around with establishing facts and then making rules to define the different relationships in the tree. I originally had a lot more relationships than needed because I was trying to create all of the relationships that I could not realizing that most of them are never used in this assignment.

### Who Did What

I did everything in this assignment by myself. I did use ChatGPT to help me create some of the rules for this assignment