PROLOG NOTES

**End all statements with a period**

**% defines the start of a comment line**

likes(alice,bob). %alice likes bob, or alice is the parent of bob, this is possessive and where first thing processes the other.

likes(bob, carol).

Love\_compatible(X, Y) :- likes(X, Y), likes(Y, X). % comma between likes means and means that bot likes have to be true in order to return true, makes a rule based on likes facts. X, Y are variables.

father(james,alfred). %james is father of alfred

mother(alice,alfred). %alice is the mother of alfred

parent(X, Y) :- father(X, Y). %parent could be defined as this

parent(X, Y) :- mother(X, Y). %alternatively parent is also this

grandparent(X, Y) :- parent(X, Z), parent(Z, Y). % when called finds the common Z(parent of the child X) that links the parent to the grandparent. And returns true if true.

Is\_father(F):-father(F,\_). //if a parameter is not important it is denoted as a underscore. This simply asks if F is a father?

Siblings(A,B):-parent(P,A), parent(P,D), A\=B %this checks if A and B has a common parent P, program finds P on their own if it exists, makes sure that A is not equal to B, return

full\_siblings(A,B):-

parent(F,A),parent(F,B),

parent(M,A),parent(M,B),

A\=B. %period means your done with your definition and comma means “and” another condition.

% full siblings have common parents F and M that the rules will find, return Boolean, real comment line

Uncle(U,N):-man(U),siblings(U,P),parent(P,N).

Human(H):-man(H).

Human(H):-woman(H).

%being human means being either a man or woman

%start of a recursive example to find the descendent

descendent(D,A):-parent(A,D).

descendent(D,A):-parent(P,D),descendant(P,A).

ancestor(A,D):-descendent(D,A). %flips the descendant’s recursion around so you can instead find the ancestor.

Terminal Stuff:

Consult(‘facts.pl’). //one way to load a program into the consule

Typing: likes(alice, bob). //returns true to the question(query) does alice like bob

Typing: likes(alice, Who). //returns who alice likes, returns whatever starts with capital letters