%First Try Program (single line comment)

/\*

make the pile of features and place each at same place

make rules using the features given and then consult

to ask questions.

\*/

% Parent fact

parent(bob,pam).

parent(luna,pam).

parent(pam,tom).

parent(jenny,tom).

parent(pam,ron).

parent(jenny,ron).

parent(jack,perry).

parent(dua,perry).

parent(jack,pammy).

parent(dua,pammy).

parent(tom,daya).

parent(perry,daya).

parent(tom,shawn).

parent(perry,shawn).

parent(pammy,john).

parent(roch,john).

%male fact

male(bob).

male(pam).

male(tom).

male(ron).

male(jack).

male(shawn).

male(roch).

male(john).

%female fact

female(luna).

female(jenny).

female(dua).

female(pammy).

female(perry).

female(daya).

%spouse fact

spouse(bob,luna).

spouse(pam,jenny).

spouse(tom,perry).

spouse(jack,dua).

spouse(pammy,roch).

%spouse rule

spouse(X,Y):-

spouse(Y,X).

%husband rule

husband(X,Y):-

/\*parent(X,Z),

parent(Y,Z),

male(X),

X\=Y.\*/

wife(Y,X).

%wife rule

wife(X,Y):-

parent(X,Z),

parent(Y,Z),

female(X),

X\=Y.

%husband(Y,X).

%child rule

child(X,Y):-

parent(Y,X).

%son rule

son(X,Y):-

parent(Y,X),

male(X).

%daughter rule

daughter(X,Y):-

parent(Y,X),

female(X).

%father rule

father(X,Y):-

parent(X,Y),

male(X).

%mother rule

mother(X,Y):-

parent(X,Y),

female(X).

%GrandParent rule

grandparent(X,Y):-

parent(X,Z),

parent(Z,Y).

%GrandFather rule

grandfather(X,Y):-

parent(X,Z),

parent(Z,Y),

male(X).

%GrandMother rule

grandmother(X,Y):-

parent(X,Z),

parent(Z,Y),

female(X).

%GrandChild rule

grandchild(X,Y):-

grandparent(Y,X).

%GrandSon rule

grandson(X,Y):-

grandparent(Y,X),

male(X).

%GrandDaughter rule

granddaughter(X,Y):-

grandparent(Y,X),

female(X).

%Ancestor rule

ancestor(X,Z):-

parent(X,Z).

ancestor(X,Z):-

parent(X,Y),

ancestor(Y,Z).

%Sibling rule

sibling(X,Y):-

parent(Z,X),

parent(Z,Y),

X\=Y.

%Sister rule

sister(X,Y):-

parent(Z,X),

parent(Z,Y),

X\=Y,

female(X).

%Brother rule

brother(X,Y):-

parent(Z,X),

parent(Z,Y),

X\=Y,

male(X).

%Uncle rule

uncle(X,Y):-

parent(Z,Y),

sibling(X,Z),

X\=Z,

male(X).

uncle(X,Y):-

parent(Z,Y),

sibling(W,Z),

W\=Z,

female(W),

husband(X,W).

%Aunt rule

aunt(X,Y):-

parent(Z,Y),

sibling(X,Z),

X\=Z,

female(X).

aunt(X,Y):-

parent(Z,Y),

sibling(W,Z),

W\=Z,

male(W),

wife(X,W).

%Nephew rule

nephew(X,Y):-

sibling(Z,Y),

parent(Z,X),

male(X).

%Niece rule

niece(X,Y):-

sibling(Z,Y),

parent(Z,X),

female(X).

%Cousin rule

cousin(X,Y):-

parent(Z,X),

parent(W,Y),

sibling(Z,W).