% Facts:

male(gajanan).

male(kishan).

male(shamrao).

male(sanjay).

male(devidas).

male(nandu).

male(vinayak).

male(santosh).

male(shlok).

male(tilak).

male(shirish).

male(sahil).

female(kanta).

female(gayatri).

female(rinku).

female(rajni).

female(jaya).

female(shindu).

female(sunita).

female(shobha).

female(janvi).

female(pari).

female(divya).

female(sakshi).

female(kirti).

female(vaibhavi).

female(shreya).

female(shweta).

parent(gajanan, kishan).

parent(shlok, shweta).

parent(shreya, shweta).

parent(suraj, sahil).

parent(janvi, sahil).

parent(suraj, janvi).

parent(janvi, suraj).

parent(gajanan, shamrao).

parent(kishan, sanjay).

parent(kishan, devidas).

parent(kishan, nandu).

parent(kanta, sanjay).

parent(kanta, devidas).

parent(kanta, nandu).

parent(shamrao, shindu).

parent(shamrao, vinayak).

parent(shamrao, santosh).

parent(gayatri, shindu).

parent(gayatri, vinayak).

parent(gayatri, santosh).

parent(sanjay, shlok).

parent(sanjay, pari).

parent(rinku, shlok).

parent(rinku, pari).

parent(devidas, tilak).

parent(devidas, divya).

parent(rajni,tilak).

parent(rajni, divya).

parent(vinayak, janvi).

parent(vinayak, shirish).

parent(sunita, janvi).

parent(sunita, shirish).

parent(santosh, sakshi).

parent(santosh, kirti).

parent(santosh, vaibhavi).

parent(shobha, sakshi).

parent(shobha, kirti).

parent(shobha, vaibhavi).

husband(kishan, kanta).

husband(shlok, shreya).

husband(suraj, janvi).

husband(shamrao, gayatri).

husband(sanjay, rinku).

husband(devidas, rajni).

husband(vinayak, sunita).

husband(santosh, shobha).

% Rules:

father(X, Y) :- male(X), parent(X, Y).

mother(X, Y) :- female(X), parent(X, Y).

son(X, Y) :- male(X), parent(Y, X).

daughter(X, Y) :- female(X), parent(Y, X).

wife(X, Y) :- husband(Y, X).

grandfather(X, Z) :- father(X, Y), parent(Y, Z).

grandmother(X, Z) :- mother(X, Y), parent(Y, Z).

sibling(X, Y) :- parent(Z, X), parent(Z, Y), X \= Y.

cousin(X, Y) :- parent(Z, X), parent(W, Y), sibling(Z, W).

uncle(X, Y) :- parent(Z, Y), sibling(X, Z), male(X).

aunt(X, Y) :- cousin(Z, Y), mother(X, Z), female(X); father(Z,Y),sibling(Z,X).

daughter\_in\_law(X, Y) :- wife(X, Z), father(Y, Z).

brother\_in\_law(X, Y) :- husband(Z, Y), sibling(Z, X).

sister\_in\_law(X, Y) :- brother\_in\_law(Y, X);husband(Z, X), sibling(W,

Z), wife(Y, W).

cousin\_in\_law(X, Y) :- cousin(X, Z), wife(Y, Z).

father\_in\_law(X, Y) :- husband(Z, Y), father(X, Z).

mother\_in\_law(X, Y) :- husband(Z, Y), mother(X,Z).

uncle\_in\_law(X, Y) :- husband(Z, Y), uncle(X, Z).

aunt\_in\_law(X, Y) :- husband(Z, Y), aunt(X, Z).

grandfather\_in\_law(X, Y) :- husband(Z, Y), grandfather(X, Z).

great\_uncle(X, Y) :- uncle(X, Z), parent(Z, Y); grandfather(Z, Y), cousin(X, Z).

great\_aunt(X, Y) :- aunt(X, Z), parent(Z, Y).

second\_cousin(X, Y) :- grandfather(Z, X), grandfather(W,Y),sibling(W, Z).

paternal\_cousin(X, Y) :- grandfather(Z, Y), father(W, X), sibling(Z, W).

great\_grandfather(X, Z) :- father(X, Y), grandfather(Y, Z).

nephew(X,Y) :- uncle(Y,X), male(X); wife(Y, Z), uncle(Z, X); son(X, Z), cousin(Y, Z).

neice(X,Y) :- aunt(Y,X), female(X); daughter(X, Z), brother\_in\_law(Z, Y); daughter(X, Z), cousin(Z, Y).

great\_grandson(X, Y) :- parent(Y, Z), parent(Z, A), parent(A, X), male(X).

great\_granddaughter(X, Y) :- parent(Y, Z), parent(Z, A), parent(A, X), female(X).

find\_relationship(X, Y) :-

father(X, Y), write(X), write(' is the father of '), write(Y), nl.

find\_relationship(X, Y) :-

mother(X, Y), write(X), write(' is the mother of '), write(Y), nl.

find\_relationship(X, Y) :-

son(X, Y), write(X), write(' is the son of '), write(Y), nl.

find\_relationship(X, Y) :-

daughter(X, Y), write(X), write(' is the daughter of '), write(Y), nl.

find\_relationship(X, Y) :-

husband(X, Y), write(X), write(' is the husband of '), write(Y), nl.

find\_relationship(X, Y) :-

wife(X, Y), write(X), write(' is the wife of '), write(Y), nl.

find\_relationship(X, Y) :-

grandfather(X, Y), write(X), write(' is the grandfather of '), write(Y), nl.

find\_relationship(X, Y) :-

sibling(X, Y), write(X), write(' is the sibling of '), write(Y), nl.

find\_relationship(X, Y) :-

father(Z, Y), mother(X, Z), write(X), write(' is the grandmother of '), write(Y), nl.

find\_relationship(X, Y) :-

father\_in\_law(X, Y), write(X), write(' is the father-in-law of '), write(Y), nl.

find\_relationship(X, Y) :-

mother\_in\_law(X, Y), write(X), write(' is the mother-in-law of '), write(Y), nl.

find\_relationship(X, Y) :-

brother\_in\_law(X, Y), write(X), write(' is the brother-in-law of '), write(Y), nl.

find\_relationship(X, Y) :-

sister\_in\_law(X, Y), write(X), write(' is the sister-in-law of '), write(Y), nl.

find\_relationship(X, Y) :-

cousin\_in\_law(X, Y), write(X), write(' is the cousin-in-law of '), write(Y), nl.

find\_relationship(X, Y) :-

uncle\_in\_law(X, Y), write(X), write(' is the uncle-in-law of '), write(Y), nl.

find\_relationship(X, Y) :-

aunt\_in\_law(X, Y), write(X), write(' is the aunt-in-law of '), write(Y), nl.

find\_relationship(X, Y) :-

grandfather\_in\_law(X, Y), write(X), write(' is the grandfather-in-law of '), write(Y), nl.

find\_relationship(X, Y) :-

great\_uncle(X, Y), write(X), write(' is the great-uncle of '), write(Y), nl.

find\_relationship(X, Y) :-

great\_aunt(X, Y), write(X), write(' is the great-aunt of '), write(Y), nl.

find\_relationship(X, Y) :-

uncle(X, Y), write(X), write(' is the uncle of '), write(Y), nl.

find\_relationship(X, Y) :-

aunt(X, Y), write(X), write(' is the aunt of '), write(Y), nl.

find\_relationship(X, Y) :-

cousin(X, Y), write(X), write(' is the cousin of '), write(Y), nl.

find\_relationship(X, Y) :-

second\_cousin(X, Y), write(X), write(' is the second cousin of '), write(Y), nl.

find\_relationship(X, Y) :-

paternal\_cousin(X, Y), write(X), write(' is the paternal cousin of '), write(Y), nl.

find\_relationship(X, Y) :-

great\_grandfather(X, Y), write(X), write(' is the great-grandfather of '), write(Y), nl.

find\_relationship(X, Y) :-

nephew(X, Y), write(X), write(' is the nephew of '), write(Y), nl.

find\_relationship(X, Y) :-

neice(X, Y), write(X), write(' is the neice of '), write(Y), nl.

find\_relationship(X, Y) :-

daughter\_in\_law(X, Y), write(X), write(' is the daughter-in-law of '), write(Y), nl.

find\_relationship(X, Y) :-

great\_grandson(X, Y), write(X), write(' is the great-grandson of '), write(Y), nl.

find\_relationship(X, Y) :-

great\_granddaughter(X, Y), write(X), write(' is the great-granddaughter of '), write(Y), nl.

find\_relationship(X, Y) :- write('Relationship not defined between '), write(X), write(' and '), write(Y), nl.