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# Introduction of Prolog

Program:

male(peter).

male(john).

male(chris).

male(kevin).

female(betty).

female(jeny).

female(lisa).

female(helen).

parentOf(chris,peter).

parentOf(chris,betty).

parentOf(helen,peter).

parentOf(helen,betty).

parentOf(kevin,chris).

parentOf(kevin,chris).

parentOf(jeny,john).

parentOf(jeny,helen).

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

parentOf(X,Y).

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

parentOf(X,Y).

grandfather(X,Y):-male(Y),

parentOf(X,Z),

parentOf(Z,Y).

grandmother(X,Y):-female(Y),

parentOf(X,Z),

parentOf(Z,Y).

brother(X,Y):-male(Y),

father(X,Z),

father(Y,W),

Z==W.

sister(X,Y):-female(Y),

father(X,Z),

father(Y,W),

Z==W.

OUTPUT:

% c:/Users/HDC0719088/Desktop/231501128/prolog.txt compiled 0.00 sec, 22 clause

?- male(peter).

true.

?- father(chris,peter).

true.

?- father(chris,betty).

false.

?-

| grandfather(kevin.peter).

true.

?- grandfather(jenny.peter).

false.

?- grandmother(jenny.peter).

false.

?- brother(helen,chris).

true.

?- brother (chris,helen).

false.

?- father(X,Y).

X = chris,

Y = peter.

?- mother(X,Y).

X = chris,

Y = betty.

?- grandmother(X,Y).

X = kevin,

Y = betty.

?- grandfather(X,Y).

X = kevin

Y = peter.

2- hrother (X,Y)

XY, Y = chris.

?- sister(X,Y).

X = Y. Y = jeny