



ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΕΙΡΑΙΩΣ

UNIVERSITY OF PIRAEUS

ΤΜΗΜΑ ΠΛΗΡΟΦΟΡΙΚΗΣ

ΛΟΓΙΚΟΣ ΠΡΟΓΡΑΜΜΑΤΙΣΜΟΣ

1<sup>η</sup> Εργασία

Καλογήρου Στυλιανή

Π18181

Νοέμβριος 2020

## Κώδικας αρχείου "ergasia1.pl"

male(jim).

male(george).

female(pat).

female(helen).

female(maka).

father(tom).

father(cons).

mother(ann).

mother(maria).

unemployed(pat).

unemployed(jim).

unemployed(george).

unemployed(helen).

unemployed(maka).

Δεδομένα (facts)

person(man,full\_name(tom,fox),dateborn(7,may,1950),works(bbc,15200)).

person(female,full\_name(ann,fox),dateborn(9,may,1951),unemployed).

person(man,full\_name(cons,kal),dateborn(30,june,1952),works(bbc,30200)).

person(female,full\_name(maria,kal),dateborn(27,june,1955),unemployed).

Σύνθετοι όροι για τους γονείς των 2  
οικογενειών

birthday\_date(pat,5,may,1973).  
birthday\_date(jim,5,may,1973).  
birthday\_date(george,23,may,1975).  
birthday\_date(helen,12,june,1973).  
birthday\_date(maka,12,june,1973).

Σύνθετοι όροι για τις ημερομηνίες  
γεννήσεων των παιδιών

family(tom,ann,[pat,jim]).  
family(cons,maria,[george,helen,maka]).

Κατηγορημα Family/3 που δείχνει  
τα μέλη μιας οικογένειας.

child(X):-family(\_,\_ ,Children),member(X,Children).

Κατηγορημα child/1

dateofbirth(child(X),1973):-birthday\_date(X,\_ ,1973).

Dateofbirth/2

Παιδιά που έχουν γεννηθεί ένα  
συγκεκριμένο έτος το 1973

- Ακολουθεί σε στιγμιότυπο οθόνης παράδειγμα σωστής εκτέλεσης κώδικα που εμφανίζει τα παιδιά που γεννήθηκαν ένα συγκεκριμένο έτος, το 1973.

```
ergasia1.pl - Notepad
File Edit Format View Help
male(jim).
male(george).
female(pat).
female(helen).
female(maka).
father(tom).
father(cons).
mother(ann).
mother(maria).
unemployed(pat).
unemployed(jim).
unemployed(george).
unemployed(helen).
unemployed(maka).
person(man,full_name(tom,fox),dateborn(7,may,1950),works(bbc,15200)).
person(female,full_name(ann,fox),dateborn(9,may,1951),unemployed).
person(man,full_name(cons,kal),dateborn(30,june,1952),works(bbc,30200)).
person(female,full_name(maria,kal),dateborn(27,june,1955),unemployed).
birthday_date(pat,5,may,1973).
birthday_date(jim,5,may,1973).
birthday_date(george,23,may,1975).
birthday_date(helen,12,june,1973).
birthday_date(maka,12,june,1973).
family(tom,ann,[pat,jim]).
family(cons,maria,[george,helen,maka]).
child(X):-family(_,_ ,Children),member(X,Children).
dateofbirth(child(X),1973):-birthday_date(X,_ ,1973).
```

```
SWI-Prolog (AMD64, Multi-threaded, version 8.2.1)
File Edit Settings Run Debug Help
Welcome to SWI-Prolog (threaded, 64 bits, version 8.2.1)
SWI-Prolog comes with ABSOLUTELY NO WARRANTY. This is free software.
Please run ?- license. for legal details.

For online help and background, visit https://www.swi-prolog.org
For built-in help, use ?- help(Topic). or ?- apropos(Word).

?-
% c:/Users/Styliani/Documents/Prolog/ergasia1.pl compiled 0.00 sec, 27 clauses
?- dateofbirth(X,1973).
X = child(pat) ;
X = child(jim) ;
X = child(helen) ;
X = child(maka).
?-
```

Γενικά παραδείγματα καλής λειτουργίας του προγράμματος.

```
SWI-Prolog (AMD64, Multi-threaded, version 8.2.1)
File Edit Settings Run Debug Help
Welcome to SWI-Prolog (threaded, 64 bits, version 8.2.1)
SWI-Prolog comes with ABSOLUTELY NO WARRANTY. This is free software.
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For online help and background, visit https://www.swi-prolog.org
For built-in help, use ?- help(Topic). or ?- apropos(Word).

?-
% c:/Users/Styliani/Documents/Prolog/ergasia1.pl compiled 0.00 sec, 27 clauses
?- child(X).
X = pat ;
X = jim ;
X = george ;
X = helen ;
X = maka.

?- father(X).
X = tom ;
X = cons.

?- family(_,_ ,_).
true
Unknown action: f (h for help)
Action? .

?- family(X,Y,D).
X = tom,
Y = ann,
D = [pat, jim] ;
X = cons,
Y = maria,
D = [george, helen, maka].
?-
```