/\* --- Knowledge Base: People with DOB --- \*/

/\* person(Name, date(Year,Month,Day)) \*/

person('Ada\_Lovelace', date(1815,12,10)).

person('Alan\_Turing', date(1912,6,23)).

person('Grace\_Hopper', date(1906,12,9)).

person('Katherine\_Johnson',date(1918,8,26)).

/\* --- Queries --- \*/

/\* Find DOB by name \*/

find\_by\_name(Name, DOB) :-

person(Name, DOB).

/\* Check if one person born before another \*/

born\_before(Older, Younger) :-

person(Older, date(Y1,M1,D1)),

person(Younger, date(Y2,M2,D2)),

(Y1 < Y2 ;

Y1 = Y2, M1 < M2 ;

Y1 = Y2, M1 = M2, D1 < D2).

/\* People with same month/day \*/

same\_birthday(PersonA, PersonB) :-

person(PersonA, date(\_,M,D)),

person(PersonB, date(\_,M,D)),

PersonA \= PersonB.

/\* List all people \*/

list\_people :-

person(Name, date(Y,M,D)),

write(Name), write(' - '),

write(D), write('/'), write(M), write('/'), write(Y), nl,

fail.

list\_people.

/\* --- Main Program --- \*/

main :-

write('\*\*\* People Database \*\*\*'), nl,

list\_people, nl,

write('Enter a name to search (end with a dot, e.g. ''Alan\_Turing''. ): '), nl,

read(Name),

( find\_by\_name(Name, date(Y,M,D)) ->

format('~w was born on ~d/~d/~d~n', [Name,D,M,Y])

; write('No record found for '), write(Name), nl

),

halt.

/\* Run main when program starts \*/

:- initialization(main).