# A Sample Session with SWI Prolog

% swipl   % My comments in yellow: invoking SWI Prolog  
Welcome to SWI-Prolog (Multi-threaded, 64 bits, Version 6.6.4)  
...  
?-       % Prolog is waiting?- consult(user). % enter the mode for entering clauses from terminal, [user]. is the same.  
 p(a).   
|: p(f(X)) :- p(X).|: % user://1 compiled 0.00 sec, 3 clauses

true.

?- listing. % a builtin predicate to see all the clauses in the database

p(a).  
p(f(A)) :- p(A).

true.

?- p(X). % enter a query  
  
X = a ? ; % proved with the substitution that X is bound to a,   
X = f(a) ? ; % ";" to indicate you want one more answer  
X = f(f(a)) ? ;  
X = f(f(f(a))) ? % Press return to indicate you want no more

?- [family]. % load file family.pl in current directory

% family compiled 0.00 sec, 7 clauses

true.

?- listing. % list all clauses in DB  
<it lists all clauses here; not shown>

true.

?- listing(mother). % listing all clauses defining mother  
  
mother(lily, mary).  
mother(mary, john).  
true.

?- grandparent(X,john). % Keep pressing ; to find all solutions

X = ken ;

X = lily ;

false.

?- % Press Ctrl-D to quickly exit Prolog.

% halt

%