

PRINCIPLES OF ARTIFICIAL INTELLIGENCE

LABORATORY PROGRAMS

INTRODUCTION TO PROLOG PROGRAM:

SOURCE CODE:

KB1:

```
woman(mia).  
woman(jody).  
woman(yolanda).  
playsAirGuitar(jody).  
party.
```

KB2:

```
happy(yolanda).  
listens2music(mia).  
Listens2music(yolanda):-happy(yolanda).  
playsAirGuitar(mia):-listens2music(mia).  
playsAirGuitar(Yolanda):-listens2music(yolanda).
```

KB3:

```
likes(dan,sally).  
likes(sally,dan).  
likes(john,brittney).  
married(X,Y) :- likes(X,Y) , likes(Y,X).  
friends(X,Y) :- likes(X,Y) ; likes(Y,X).
```

KB4:

```
food(burger).  
food(sandwich).  
food(pizza).  
lunch(sandwich).  
dinner(pizza).  
meal(X):-food(X).
```

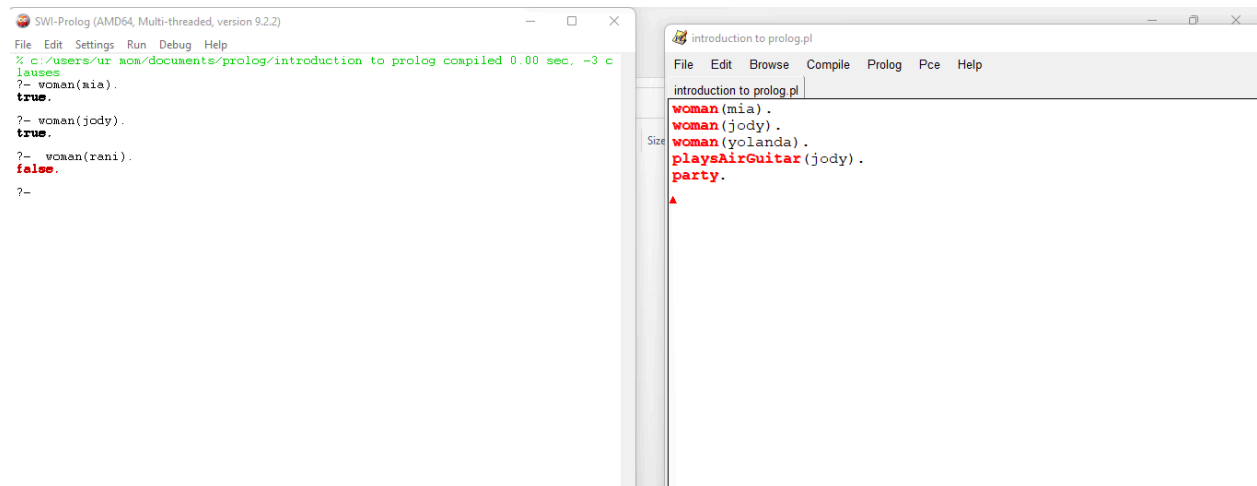
KB5:

```
owns(jack,car(bmw)).
owns(john,car(chevy)).
owns(olivia,car(civic)).
owns(jane,car(chevy)).
sedan(car(bmw)).
sedan(car(civic)).
truck(car(chevy)).
```

KB6: Find minimum maximum of two numbers

```
find_max(X,Y,X):-X>=Y,!.
find_max(X,Y,Y):-X<Y.
find_min(X,Y,X):-X<=Y,!.
find_min(X,Y,Y):-X>Y.
```

OUTPUT:



The image shows two windows from a Prolog IDE. The left window, titled 'SWI-Prolog (AMD64, Multi-threaded, version 9.2.2)', displays the following code and output:

```
File Edit Settings Run Debug Help
% c:/users/ur mom/documents/prolog/introduction to prolog compiled 0.00 sec, -3 c
auses
?- woman(mia).
true.
?- woman(jody).
true.
?- woman(roni).
false.
?-
```

The right window, titled 'introduction to prolog.pl', displays the following code:

```
File Edit Browse Compile Prolog Pce Help
introduction to prolog.pl
woman(mia).
woman(jody).
woman(yolanda).
playsAirGuitar(jody).
party.
^
```