

AI Lab Assignment 04

Problem Statement: *Any small expert system in area of your choice*

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CLASS: TY(IT)

BATCH: **02**

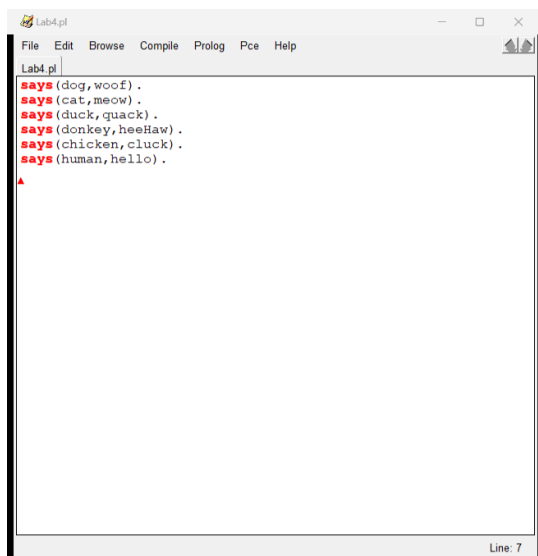
Solution :

Aim is to write an expert system that helps us *identify animals*.

Suppose we have already obtained the following knowledge about animals, which are rules of inference:

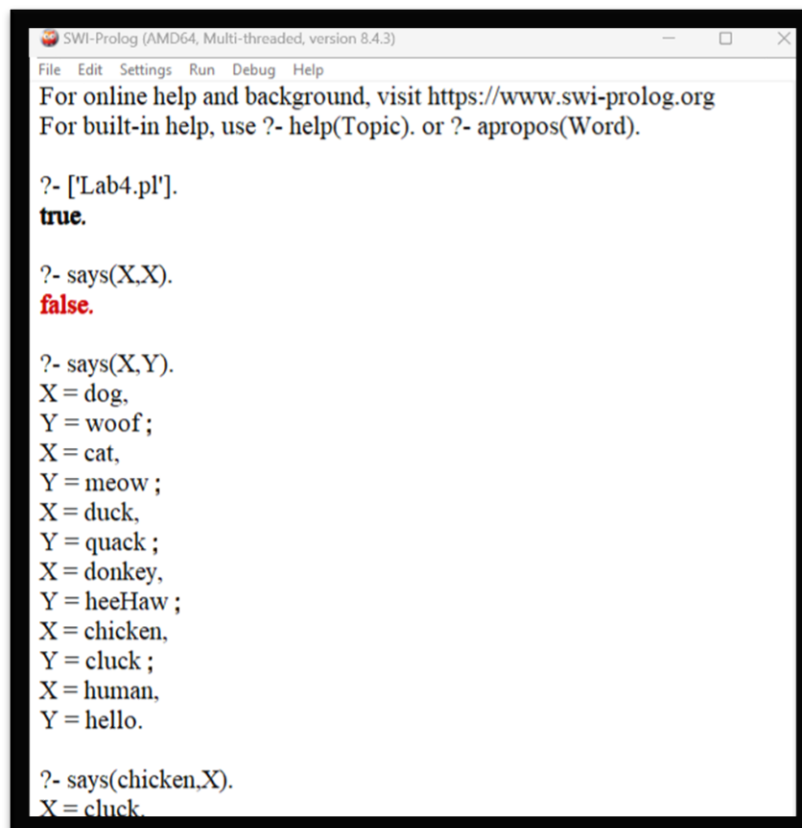
- If it says *woof*, then the animal is a **dog**.
- If it says *meow*, then the animal is a **cat**.
- If it says *quack*, then the animal is a **duck**.
- If it says *hee-haw*, then the animal is a **donkey**.
- If it says *cluck*, then the animal is a **chicken**.
- If it says *Hello*, then the animal is a **human**.

```
says(dog,woof).  
says(cat,meow).  
says(duck,quack).  
says(donkey,heeHaw).  
says(chicken,cluck).  
says(human,hello).
```



```
Lab4.pl  
File Edit Browse Compile Prolog Pce Help  
says(dog,woof).  
says(cat,meow).  
says(duck,quack).  
says(donkey,heeHaw).  
says(chicken,cluck).  
says(human,hello).  
▲  
Line: 7
```

OUTPUT After Running Queries:



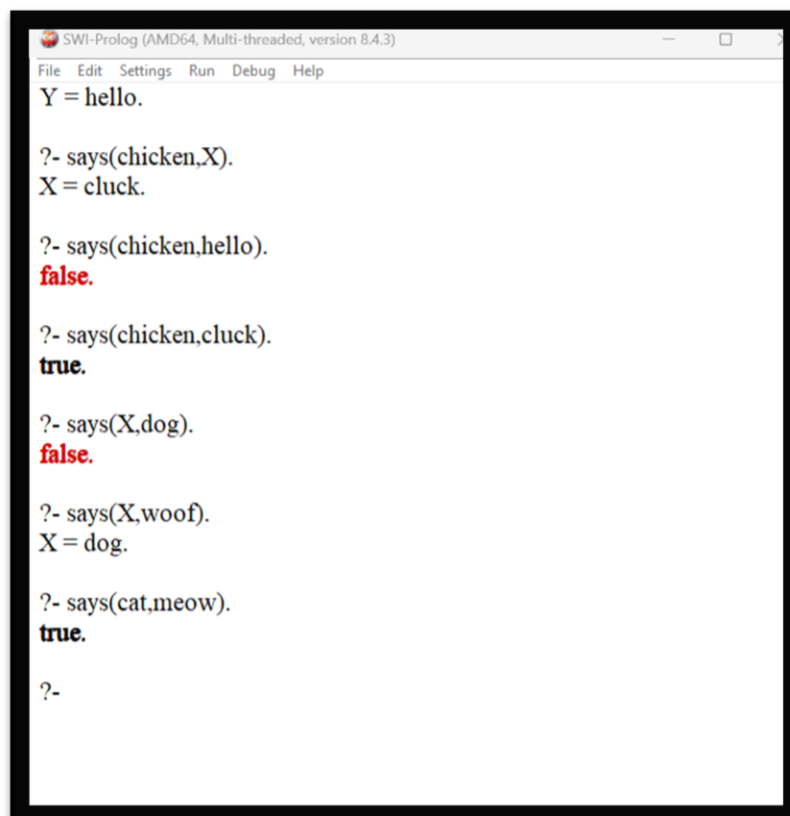
```
SWI-Prolog (AMD64, Multi-threaded, version 8.4.3)
File Edit Settings Run Debug Help
For online help and background, visit https://www.swi-prolog.org
For built-in help, use ?- help(Topic). or ?- apropos(Word).

?- ['Lab4.pl'].
true.

?- says(X,X).
false.

?- says(X,Y).
X = dog,
Y = woof ;
X = cat,
Y = meow ;
X = duck,
Y = quack ;
X = donkey,
Y = heeHaw ;
X = chicken,
Y = cluck ;
X = human,
Y = hello.

?- says(chicken,X).
X = cluck.
```



```
SWI-Prolog (AMD64, Multi-threaded, version 8.4.3)
File Edit Settings Run Debug Help
Y = hello.

?- says(chicken,X).
X = cluck.

?- says(chicken,hello).
false.

?- says(chicken,cluck).
true.

?- says(X,dog).
false.

?- says(X,woof).
X = dog.

?- says(cat,meow).
true.

?-
```