

CSE341 PROGRAMMING LANGUAGE
Homework 4 - Prolog

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PART 1:

At the beginning of this assignment, I made the installation by typing "brew install gnu-prolog" into the terminal, created my pl extension file and started coding.

I typed the "gprolog" command into the terminal and then went to the part where I could compile and run the file containing my prolog codes.

```
furkanekinci@Furkan-MacBook-Air prolog % gprolog
GNU Prolog 1.5.0 (64 bits)
Compiled Dec  7 2023, 22:50:52 with clang
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| ?- █
```

"['db.pl']." We make the written code work by writing this statement

```
| ?- ['db.pl'].
compiling /Users/furkanekinci/Desktop/prolog/db.pl for byte code...
/Users/furkanekinci/Desktop/prolog/db.pl compiled, 123 lines read - 1
3519 bytes written, 9 ms

(3 ms) yes
| ?- █
```

Give the id of an object that is delivered and run it as "status_object(1)." I do it this way and the output is as follows

```
| ?- status_object(1).
Object is on delivery. Delivery personnel: 2

yes
```

When the identity of an object that is not delivered is entered, the name of the first person who can carry it is written on the screen. If this is the person you are looking for, press enter button but if you want to see other options type ";" and see other option.

```
| ?- status_object(2).  
Object is not on delivery.  
ID: 1   Hours: 7  
  
true ? ;  
  
ID: 3   Hours: 7  
  
true ? ;  
  
no
```

```
| ?- status_object(2).  
Object is not on delivery.  
ID: 1   Hours: 7  
  
true ?  
  
(1 ms) yes
```

And other outputs are below:

```
| ?- status_object(3).  
Object is not on delivery.  
ID: 1   Hours: 10  
  
true ? ;  
  
no
```

Only one person can carry it here because the other person works 8 hours but the cargo requires 10 hours.

```
| ?- status_object(4).  
Object is not on delivery.  
ID: 1   Hours: 7  
  
true ? ;  
  
no
```

Only one person can carry it here because the other deliveryman can only carry 30 kg but the object weighs 35 kg.

```
Object is not on delivery.
ID: 1   Hours: 9

true ? ;

no
```

Due to the clock time, only one person can carry this object.

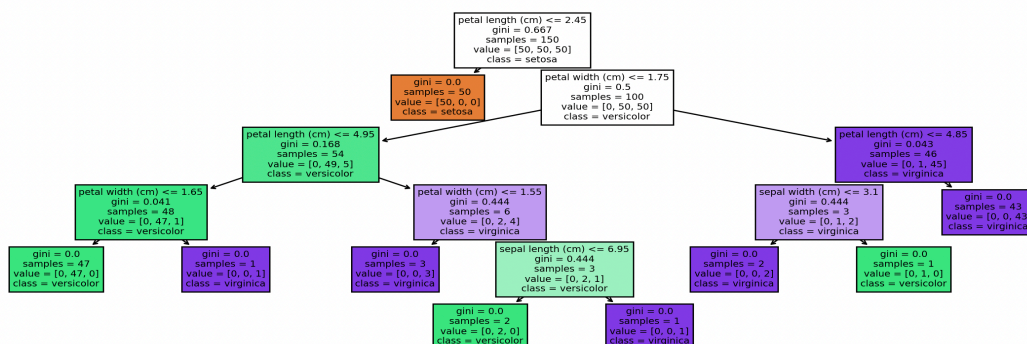
PART 2:

Since the file name in which I wrote the code for this part is "db2.pl", the code we wrote to run the code in the terminal changes to "[db2.pl]".

```
| ?- ['db2.pl'].
compiling /Users/furkanekinci/Desktop/prolog/db2.pl for byte code...
/Users/furkanekinci/Desktop/prolog/db2.pl compiled, 35 lines read - 1
0168 bytes written, 8 ms

(2 ms) yes
```

I wrote the code in this section according to the tree I created from the dataset with the codes I wrote in Python and the image of the tree is below.



"classify(4.9,2.4,3.3,1.0)." When I run the statement by typing it, the image of the output is below.

```
[| ?- classify(4.9,2.4,3.3,1.0).  
Class: Iris-versicolor  
  
yes
```