

# Lab-6 WAP to study Using cut,not,fail predicates in prolog.

Procedure:-

Write a prolog program having facts in clauses section for predicate student(studentname,branchname).

Use cut !, fail and not predicates to:

- Display list of all students
- Display list of students for given specific branch.
- Display list of students excluding specific branch

## Code:

```

DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
Files Edit Run Compile Options Setup
Line 1 Col 1 D:\PROLOG\EXP6.PRO Indent Insert
domains
predicates
    start
    rule(integer)
    usecut(symbol)
    student(symbol,symbol)
clauses
    start:-write("*-MENU-*"),nl,
    write("1.Display List of allStudents"),nl,
    write("2.Display Students of perticular Given Branch"),nl,
    write("3.Display List of Students not belongs branch(use not predicate)"),nl,
    write("4.Display List of Students not belongs it branch(use cut(!) predi"),nl,
    write("Enter the option"),nl,
    readint(C),nl,rule(C).
    rule(1):-student(X,Y),write(X,"-",Y,"\n"),fail.
    rule(1):-write("continue?"),
    readln(A),nl,
    A="y",
    start.
    rule(2):-write("Enter name of branch for which student list needed"),nl,
    readln(B),nl,
    student(N,B),
F1-Help F2-Save F3-Load F5-Zoom F6-Next F7-Xcopy F8-Xedit F9-Compile F10-Menu

```

```

write(N,"-",B,"\n"),
fail.
rule(2):-write("continue?"),
readln(A),nl,
A="y",
start.
rule(3):-write("Enter branch name to be excluded from result"),nl,
readln(BR),
student(N,X),
not(BR=X),
write(N,"-",X,"\n"),
fail.
rule(3):-write("continue?"),
readln(A),nl,
A="y",
start.
rule(4):-student(N,BR),usecut(BR),write(N,"-",BR,"\n"),fail.
rule(4):-write("continue?"),
readln(A),nl,
A="y",
start.
usecut(it):-!,fail.
usecut(it):-!,fail.
usecut(_).
student(darshak,it).
student(anjan,ce).
student(arya,civil).
student(rohit,it).
student(mohit,civil).
student(nihar,ec).

```

domains

predicates

start

rule(integer)

usecut(symbol)

student(symbol,symbol)

clauses

start:-write("\*-MENU-\*"),nl,

write("1.Display List of allStudents"),nl,

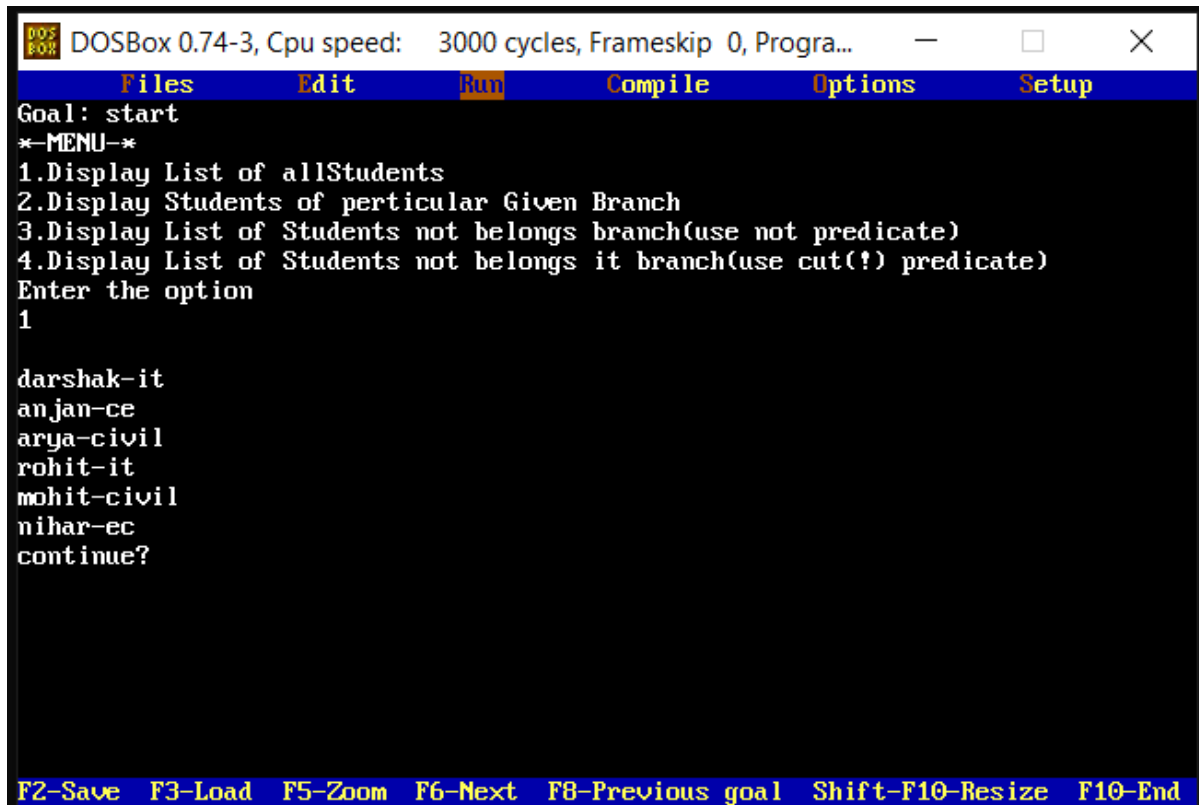
write("2.Display Students of perticular Given Branch"),nl,

write("3.Display List of Students not belongs branch(use not predicate)'),nl,

```
write("4.Display List of Students not belongs it branch(use cut(!) predicate)",nl,
write("Enter the option"),nl,
readint(C),nl,rule(C).
rule(1):-student(X,Y),write(X,"-",Y,"\n"),fail.
rule(1):-write("continue?"),
readln(A),nl,
A="y",
start.
rule(2):-write("Enter name of branch for which student list needed"),nl,
readln(B),nl,
student(N,B),
write(N,"-",B,"\n"),
fail.
rule(2):-write("continue?"),
readln(A),nl,
A="y",
start.
rule(3):-write("Enter branch name to be excluded from result"),nl,
readln(BR),
student(N,X),
not(BR=X),
write(N,"-",X,"\n"),
fail.
rule(3):-write("continue?"),
readln(A),nl,
A="y",
start.
rule(4):-student(N,BR),usecut(BR),write(N,"-",BR,"\n"),fail.
rule(4):-write("continue?"),
readln(A),nl,
```

```
A="y",  
start.  
usecut(it):-!,fail.  
usecut(_).  
student(darshak,it).  
student(anjan,ce).  
student(arya,civil).  
student(rohit,it).  
student(mohit,civil).  
student(nihar,ec).
```

## Output:



The screenshot shows a DOSBox 0.74-3 window with a menu-driven Prolog interface. The menu options are: 1. Display List of allStudents, 2. Display Students of particular Given Branch, 3. Display List of Students not belongs branch(use not predicate), and 4. Display List of Students not belongs it branch(use cut(!) predicate). The user has selected option 1, resulting in a list of students and their branches: darshak-it, anjan-ce, arya-civil, rohit-it, mohit-civil, nihar-ec. The window includes a menu bar (Files, Edit, Run, Compile, Options, Setup) and a status bar with keyboard shortcuts (F2-Save, F3-Load, F5-Zoom, F6-Next, F8-Previous goal, Shift-F10-Resize, F10-End).

```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...  
Files Edit Run Compile Options Setup  
Goal: start  
*-MENU-*  
1.Display List of allStudents  
2.Display Students of perticular Given Branch  
3.Display List of Students not belongs branch(use not predicate)  
4.Display List of Students not belongs it branch(use cut(!) predicate)  
Enter the option  
1  
  
darshak-it  
anjan-ce  
arya-civil  
rohit-it  
mohit-civil  
nihar-ec  
continue?  
  
F2-Save F3-Load F5-Zoom F6-Next F8-Previous goal Shift-F10-Resize F10-End
```

```

nihar-ce
continue?y

*-MENU-*
1.Display List of allStudents
2.Display Students of perticular Given Branch
3.Display List of Students not belongs branch(use not predicate)
4.Display List of Students not belongs it branch(use cut(!) predicate)
Enter the option
2

Enter name of branch for which student list needed
it

darshak-it
rohit-it
continue?_
F2-Save F3-Load F5-Zoom F6-Next F8-Previous goal Shift-F10-Resize F10-End

```

```

continue?y

*-MENU-*
1.Display List of allStudents
2.Display Students of perticular Given Branch
3.Display List of Students not belongs branch(use not predicate)
4.Display List of Students not belongs it branch(use cut(!) predicate)
Enter the option
3

Enter branch name to be excluded from result
civil
darshak-it
anjan-ce
rohit-it
nihar-ce
continue?_
F2-Save F3-Load F5-Zoom F6-Next F8-Previous goal Shift-F10-Resize F10-End

```

```

continue?y

*-MENU-*
1.Display List of allStudents
2.Display Students of perticular Given Branch
3.Display List of Students not belongs branch(use not predicate)
4.Display List of Students not belongs it branch(use cut(!) predicate)
Enter the option
4

anjan-ce
arya-civil
mohit-civil
nihar-ce
continue?n

No
Goal:
F2-Save F3-Load F5-Zoom F6-Next F8-Previous goal Shift-F10-Resize F10-End

```