Experiment 6

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Aim: Write program to study usage of cut,not,fail predicates in prolog.

Procedure:

Write a prolog program having facts in clauses section for predicate student(studentname,branchname). Use cut !, fail, not predicates to

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

Code:

```
Domains
studentname,branchname,input=symbol
Predicates
        go
        student(studentname,branchname)
        rule(integer)
continue(symbol)
cut(symbol,symbol)

Clauses
        student(divyesh,it).
student(mehul,ce).          student(yash,ec).
        student(akshay,it).
        go:-
                write("**********MENU********************** \n"),
                write("1) Display list of all students \n"),
write("2) Display list of students for given specific branch. \n"),
write("3) Display list of students excluding specific branch \n"),
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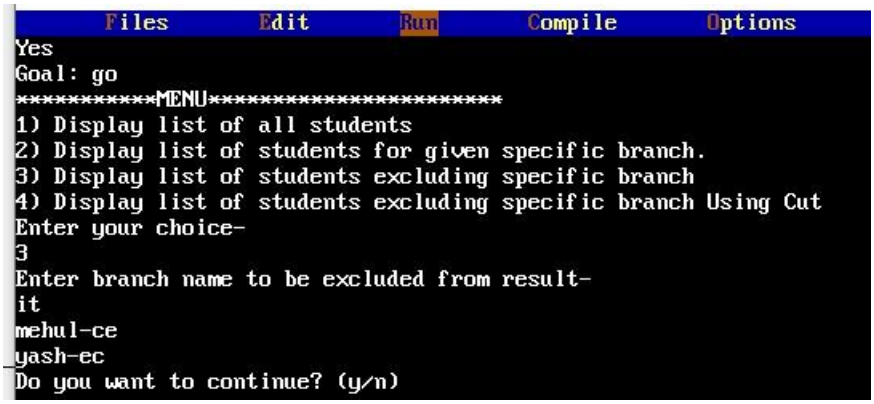
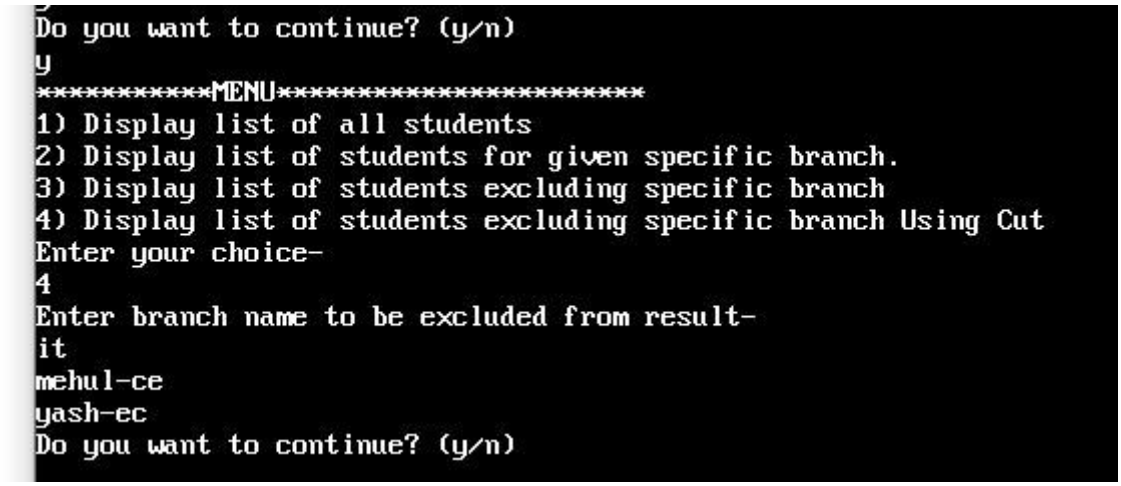
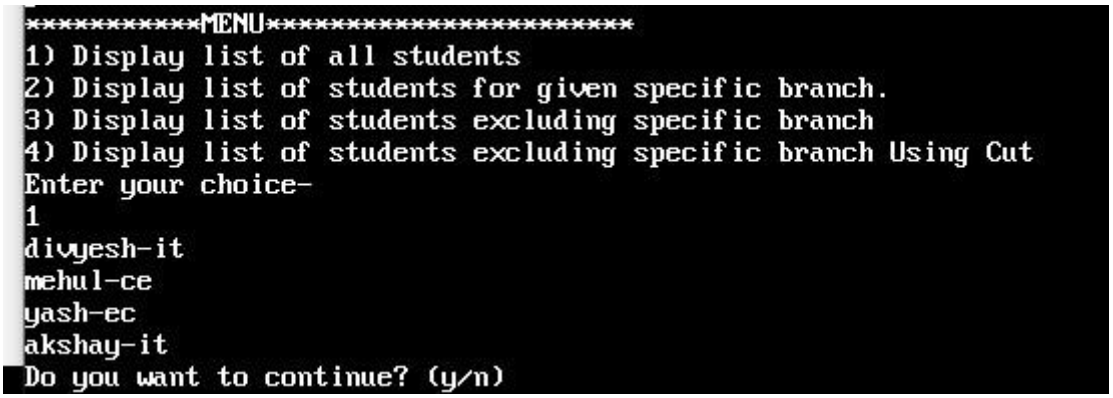
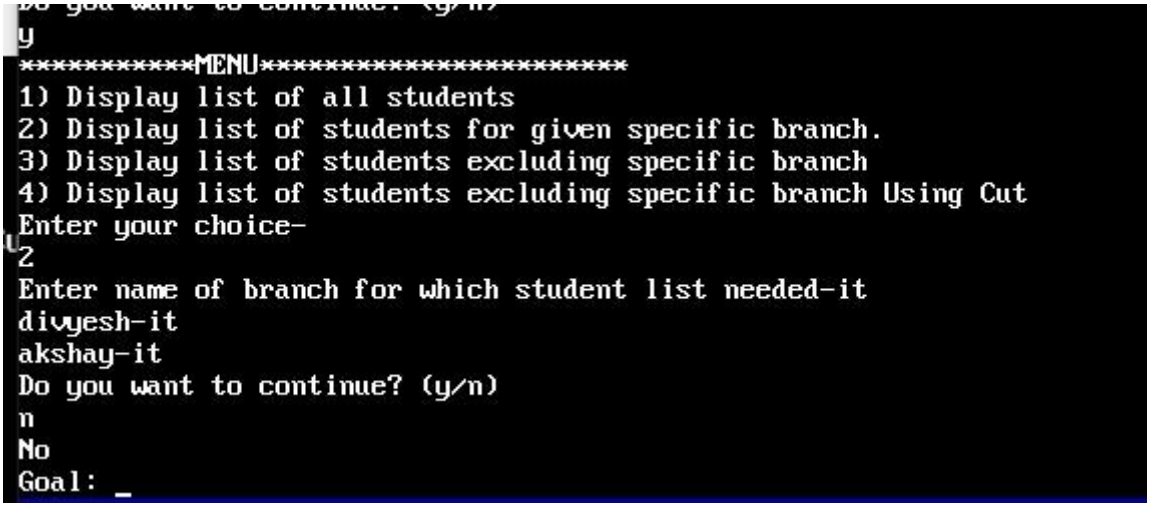
```
                write("4) Display list of students excluding specific branch Using Cut
\n"),
                write("Enter your choice- \n"),
                readint(X),
                rule(X),
                write("Do you want to continue? (y/n) \n"),
                readln(Y),
        continue(Y).
rule(1):-
                        student(X,Y),write(X),write("-"),write(Y),nl,fail.
                rule(1).
        rule(2):-
                        write("Enter name of branch for which student list needed-
"), readln(Y),student(X,Y),write(X),write("-"),write(Y),nl,fail.
                rule(2).
                rule(3):-
                         write("Enter branch name to be excluded from result –"),
readln(Y),
                        student(X,Z),not(Z=Y),write(X),write("-"),write(Z),nl,fail.
                rule(3).
                rule(4):-
                         write("Enter branch name to be excluded from result –"),
readln(Y)
                        ,student(X,Z),cut(Z,Y),write(X),write("-"),write(Z),nl,fail.
                rule(4).
                cut(Z,Y):- Z=Y,!,fail.
                cut(_,_).
                continue(y):- go.
```

Output:


Files Edit Run Compile Options
Yes
Goal: go
**********MENU**********
1) Display list of all students
2) Display list of students for given specific branch.
3) Display list of students excluding specific branch
4) Display list of students excluding specific branch Using Cut
Enter your choice-
3
Enter branch name to be excluded from result-
it
mehul-ce
yash-ec
Do you want to continue? (y/n)


Do you want to continue? (y/n)
y
**********MENU**********
1) Display list of all students
2) Display list of students for given specific branch.
3) Display list of students excluding specific branch
4) Display list of students excluding specific branch Using Cut
Enter your choice-
4
Enter branch name to be excluded from result-
it
mehul-ce
yash-ec
Do you want to continue? (y/n)


**********MENU**********
1) Display list of all students
2) Display list of students for given specific branch.
3) Display list of students excluding specific branch
4) Display list of students excluding specific branch Using Cut
Enter your choice-
1
divyesh-it
mehul-ce
yash-ec
akshay-it
Do you want to continue? (y/n)


y
**********MENU**********
1) Display list of all students
2) Display list of students for given specific branch.
3) Display list of students excluding specific branch
4) Display list of students excluding specific branch Using Cut
Enter your choice-
2
Enter name of branch for which student list needed-it
divyesh-it
akshay-it
Do you want to continue? (y/n)
n
No
Goal: _