Name : TARRUN.B

Reg no : 2116241801291

Exp no : 5

Exp name : decision making and knowledge representation

Date : 10.05.2025

Program :

```
% Given facts
likes(mary, food).
likes(mary, wine).
likes(john, wine).
likes(john, mary).

% Rules based on the conditions:
likes(john, X) :- likes(mary, X). % John likes anything that Mary likes
likes(john, Y) :- likes(Y, wine). % John likes anyone who likes wine
likes(john, Y) :- likes(Y, Y). % John likes anyone who likes
themselves

% Sample queries:
% Query 1: Does John like food?
% ?- likes(john, food).

% Query 2: Does John like wine?
% ?- likes(john, wine).
```

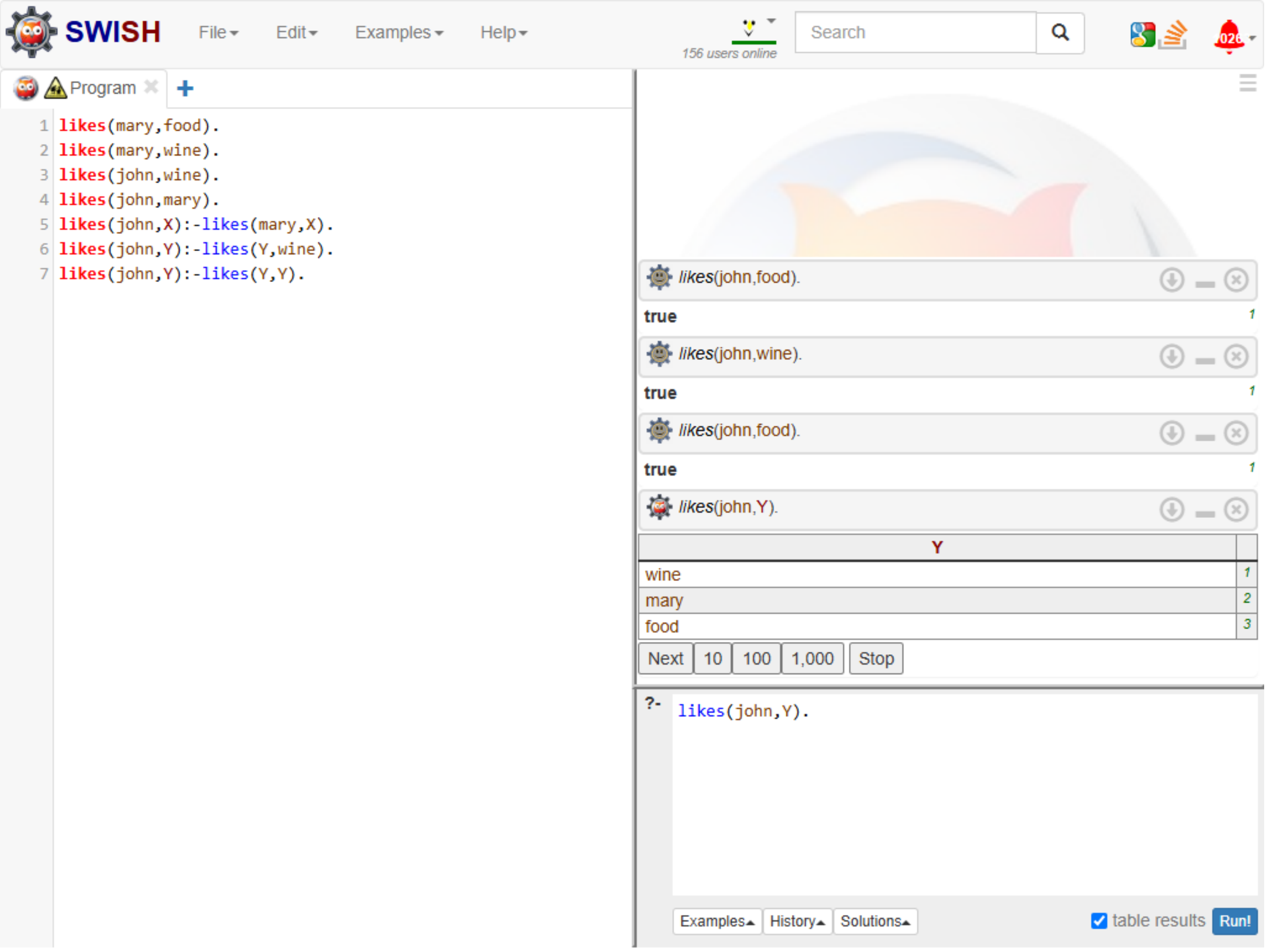
% Query 3: Does John like food if Mary likes food?

% ?- likes(john, food).

% Query 4: Who does John like?

% ?- likes(john, Y).

Output :



```
likes(mary,food).
likes(mary,wine).
likes(john,wine).
likes(john,mary).
likes(john,X):-likes(mary,X).
likes(john,Y):-likes(Y,wine).
likes(john,Y):-likes(Y,Y).
```

```
likes(john,food).
true                                   1
likes(john,wine).
true                                   1
likes(john,food).
true                                   1
likes(john,Y).
```

Y	
wine	1
mary	2
food	3

```
?- likes(john,Y).
```