

Min of a list of numbers:

The screenshot shows the SWISH online programming environment. The browser tabs include "2024FS-MATH-1900-001", "Course Modules: 2024FS-...", "swish_prolog.pdf: 2024FS-...", and "SWISH -- Min%20of%20list.pl". The address bar shows the URL "swish.swi-prolog.org/p/Min%20of%20list.pl". The SWISH logo and navigation menu are at the top. The main area features a large owl illustration. The console at the bottom displays the following code and output:

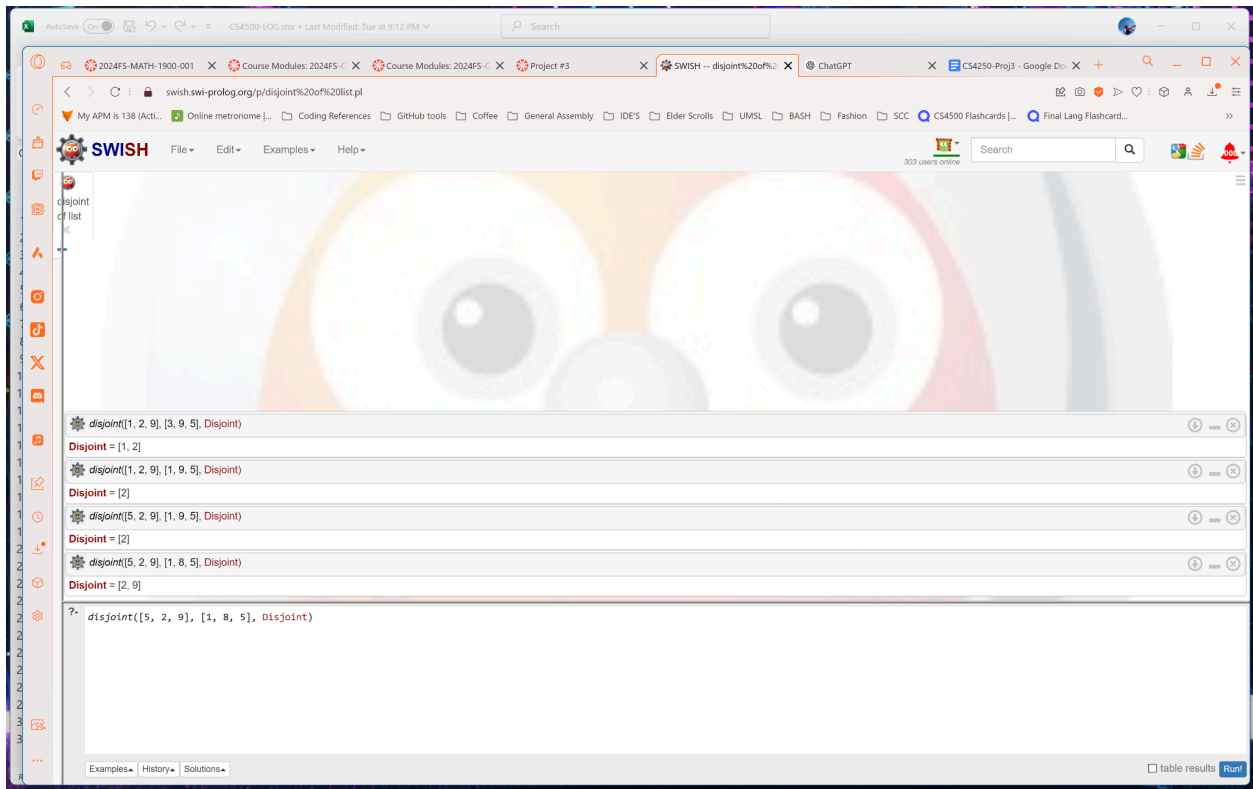
```
trace, min([3, 5], Minimum).  
Call: min([3, 5], _5142)  
Minimum = 3  
false  
min([8, 3, 7, 1, 6, 2, 5, 4], Minimum).  
Minimum = 1  
?- min([8, 3, 7, 1, 6, 2, 5, 4], Minimum).
```

Union of 2 sets:

The screenshot shows the SWISH online programming environment. The browser tabs include "2024FS-MATH-1900-001", "Course Modules: 2024FS-...", "Course Modules: 2024FS-...", "SWISH -- Min of list.pl", and "ChatGPT". The address bar shows the URL "swish.swi-prolog.org/p/Min%20of%20list.pl". The SWISH logo and navigation menu are at the top. The main area features a large owl illustration. The console at the bottom displays the following code and output:

```
union([1, 2, 3], [3, 4, 5], Union).  
Union = [1, 2, 3, 4, 5]  
false  
union([8, 2, 3], [6, 4, 5], Union).  
Union = [8, 2, 3, 6, 4, 5]  
?- union([8, 2, 3], [6, 4, 5], Union).
```

Disjoint of elements:



Family tree:

```
1 % Facts
2 male(pete).
3 male(mark).
4 male(tom).
5 male(john).
6 male(frank).
7 male(matt).
8 male(henry).
9 male(todd).
10
11 female(alice).
12 female(kate).
13 female(jenny).
14 female(lilly).
15 female(illy).
16
17 parent(pete, mark).
18 parent(pete, tom).
19 parent(pete, anne).
20 parent(pete, alice).
21 parent(pete, kate).
22 parent(pete, henry).
23 parent(pete, todd).
24
25 parent(mark, lilly).
26 parent(mark, john).
27 parent(mark, frank).
28
29 parent(tom, kate).
30
31 parent(alice, henry).
32 parent(alice, jenny).
33 parent(alice, todd).
34
35 % Rules
36 sibling(X, Y) :-
37     parent(Father, X),
38     parent(Father, Y),
39     X \= Y.
37
38 sister(X, Y) :-
39     sibling(X, Y),
40     female(X).
41
42 brother(X, Y) :-
43     sibling(X, Y),
44     male(X).
45
46 father(X, Y) :-
47     parent(X, Y),
48     male(X).
49
50 mother(X, Y) :-
51     parent(X, Y),
52     female(X).
53
54 grandparent(X, Y) :-
55     parent(X, Z),
56     parent(Z, Y).
```

