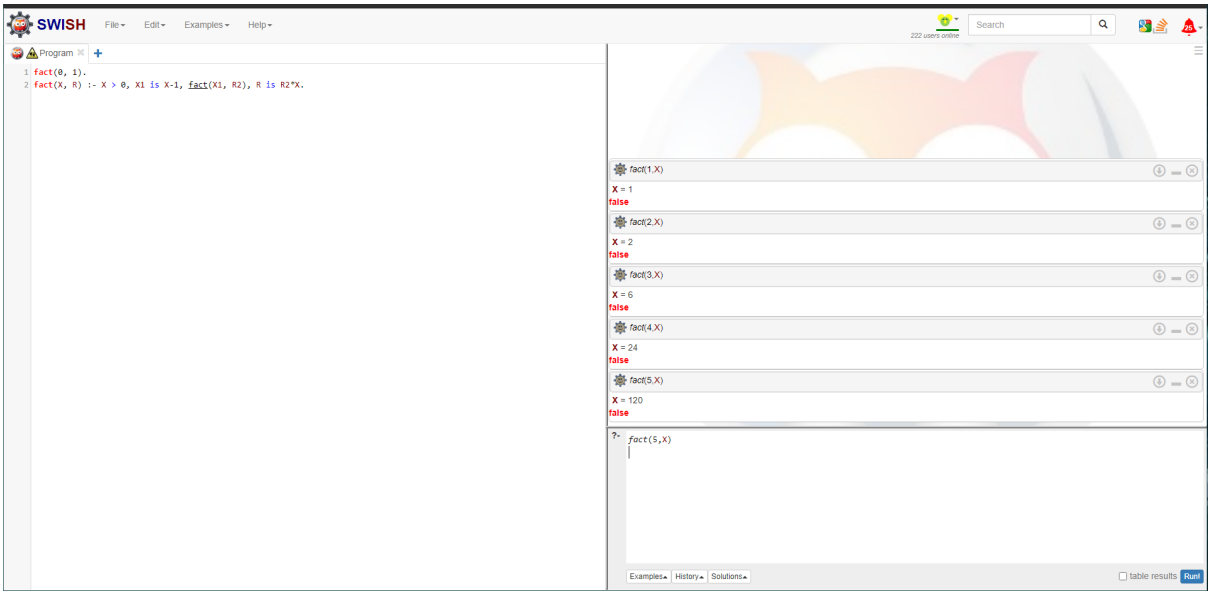
David Alejandro Velázquez Valdéz A01632648
Felix David De Haro Soto A01637589
Diego Ortiz Mariscal A01552000

Actividad 5.1 Programación Lógica

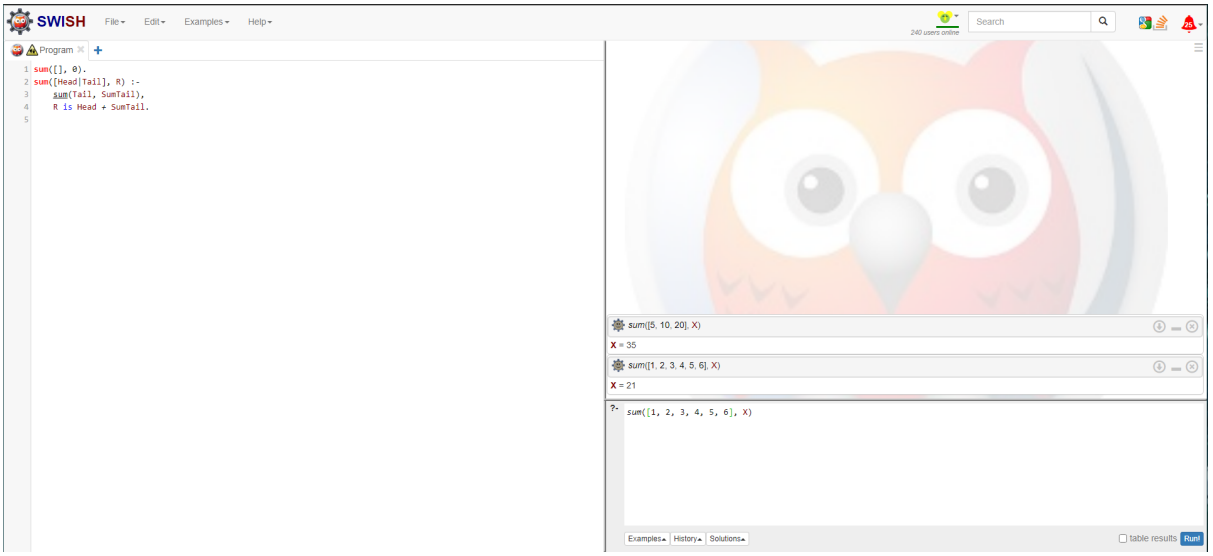
7. Write a predicate fact/2 which takes a natural number as first argument, and returns the factorial of the number.

```
fact(0, 1).
fact(X, R) :- X > 0, X1 is X-1, fact(X1, R2), R is R2*X.
```



16. Define sum/2 to take a list of integers as input and return the output as their sum.

```
sum([], 0).
sum([Head|Tail], R) :-
    sum(Tail, SumTail),
    R is Head + SumTail.
```



19. Write a predicate split/4 that splits a list into two parts, the length of the first part is given.

split(L,0,[],L).

split([Head|TailX],N,[Head|TailY],List2) :- N > 0, N1 is N - 1, split(TailX,N1,TailY,List2).