

1. Use SWI Prolog to create the data representation and the rules to solve the "Hanoi Towers" problem. And run it!

Create a Report that contains:

- **Introduction explaining the famous problem called "Hanoi Towers"**
- The famous problem of the hanoi tower is that there are 3 poles and a certain number of disks reaching the final result of having 1 pole filled with the largest disk to the smallest. The rules are not having a larger disk above a smaller one, just moving on disk at a time.
- **Description on how you represent the elements needed to work on the problem in Prolog**
- The elements will be the number of disks, the 3 separate towers
- **Explanation of the rules of this problem**
- The rules are not having a larger disk above a smaller one, just moving on disk at a time.
- **Your code in prolog**
- `move(1,X,Y,_):-`
- `write('Move top disk from '), write(X), write(' to '), write(Y), nl.`
- `move(N,X,Y,Z):-`
- `N>1,`
- `M is N-1,`
- `move(M,X,Z,Y),`
- `move(1,X,Y,_),`
- `move(M,Z,Y,X).`
- **A link to your personal GitHub repository where the code is.**
- <https://github.com/Alepepi/HanoiTower.git>
- **Result of the execution of your program (include a screenshot and an explanation of what happened and what the screenshot shows)**

```

?- move(5, s, t, a).
Move top disk from s to t
Move top disk from s to a
Move top disk from t to a
Move top disk from s to t
Move top disk from a to s
Move top disk from a to t
Move top disk from s to t
Move top disk from s to a
Move top disk from t to a
Move top disk from t to s
Move top disk from a to s
Move top disk from t to a
Move top disk from s to t
Move top disk from s to a
Move top disk from t to a
Move top disk from s to t
Move top disk from a to s
Move top disk from a to t
Move top disk from s to t
Move top disk from a to s
Move top disk from t to a
Move top disk from t to s
Move top disk from a to s
Move top disk from a to t
Move top disk from s to t
Move top disk from s to a
Move top disk from t to a
Move top disk from s to t
Move top disk from a to s
Move top disk from a to t
Move top disk from s to t

```

- **true** ■
- The screenshot shows the movements of 5 disks and s being the source, t being the target and a being the auxiliary poles.
- ***Don't forget to add captions below each image or figure of your report.***
- ***Personal conclusions on your learning process and the obtained results***
- The lesson learned was making the process of making the fact move and putting the inputs that the function that will have
- ***References of used sources of information***
- ***TutorialsPoint. (2021, July 28). Prolog - Towers of Hanoi Problem. TutorialsPoint. Retrieved February 11, 2023, from https://www.tutorialspoint.com/prolog/prolog_towers_of_hanoi_problem.htm***

2. Check the rubric to make sure you have everything that is graded here.