# Assignment 4. FaceIn

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New week, new programming language, new challenge; this is how the previous week looked like for our team. In order to be prepared for a new programming language we had installed the needed software and read some of the tutorials about Prolog before the start of the week. The presentations gave us hope that the assignment will not be very hard, and we were right, but we still have to mention some challenges.

This new programming language looked simpler and was more logical then Haskell at the first sight. The assignment started with a challenge. We used the snippets of code provided by the assignment and created our own with some help from the slides, but we could not figure it out why the file is not running. The code was changed several times even though it made perfect sense. We used a couple of important minutes to find out what the problem was; the file started with “G0 **=** [person…”. SWI prolog can not run the file with the equal sign there and we got this issue “No permission to modify static procedure `(=)/2' “ after removing, but we still had an error “Syntax error: Operator expected”. We can not use the equal sign and it still requires an operator. Now the code looked as such “**G**0[person…”. After reading the slides a bit more we remembered what our teacher pointed out, that we need to define the variable with a small letter.

About faceIn:

* we created our own member, select and equal in order not to use the pre existing ones, so we have “mymember, myselect, myeq”
* mymember, goodfriends and clique seem to work fine and we also created test predicate for making the testing easier.
* predicate ispath(X,Y,G) to check if there is a transitive path starting from X that reaches Y. This predicate allowed us to do the following 2 assignments a lot easier
* for wannabe and idol we just took all persons from all lists, without X and checked if there is path between them by using ispath predicate. The predicates work very well for checking if given statement is true but it not working properly for finding persons that are wannabe or idel, because it shows results multiple times.
* We also created predicates for testing these 2
* isPath(G,X,Y,P) where we took list P with the path and checked if it is correctly. By doing this, it was a lot easier to make this predicate. We took each first 3 elements from list P and checked them with predicate *isArrow* if the arrow between first and 3rd element in list is correct. The predicate works very well for checking if a specific path between X and Y is correct but it does not work very well for finding the path between X and Y. And it also does not work if X and Y are consecutive nodes in graph. Maybe with little fixes it will work perfect.

The predicates we created work very well for checking if statements are true for given lists and atoms but if the atoms from querry are replaced with variables they provide correct answers but they offer answers multiple times without stopping. It is probably because we did not understood very well how Prologue works and probably with little fixes all these predicates could work perfect.