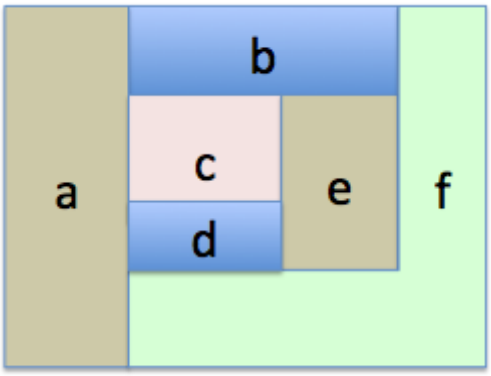
Logic Programming - Map Coloring

A map should be colored so that no two neighboring regions are given a same color. Write a prolog program that tries to assign the given colors to the regions of the given map.

Sample map:



Your program should work with any given map and any given set of colors. You can have at most two statements (i.e. facts or rules) related to a specific problem instance: one for the given map and one for the given set of colors. Other than these, your program should be irrelevant to any particular map or any particular set of colors.

The query must be

?- result(X).

You can use \+. You cannot use predicates *cut (!), assert, asserta, assertz* nor those predicates explicitly defined for I/O, like *read, write, print*. Among predicates for list processing, you can use *append, length, member*. All other predicates you need for list processing must be defined by yourself.

Submission: one zipped file called YourLastName_YourFirstName containing

- a plain text file for prolog code
- a readme file in plain text or pdf format, explaining how to provide different maps and different color sets to run your program, and the meanings of the functions (if any) and the predicates that you introduced.