Total score is 12. Time limit is 20 minutes.

1. For a mafia gang member, to move up rank(s), the member must pay money to “The Boss”. File mafiaPromote.pl contains facts and rules regarding this “Buy the rank” activity of the mafia.

rank(A,B) defines a fact that a person, A, is at rank B (this is an integer) in the gang. (lowest rank is 0,

highest rank is 2. “The Boss” does not belong to any rank though).

promoteRank(From,To,Amount) defines that to promote from rank “From” to rank “To”, a gang member

has to pay “Amount” Baht to “The Boss”.

But if a member did some favor for the boss, that member maybe given a “buffalo coupon” or an

“elephant” coupon.

* A buffalo coupon is given to a member who helps “The Boss” five or more times.
* An elephant coupon is given to a member who helps “The Boss” 10 or more times (it replaces a buffalo coupon that member already has).

bossFavor(M,T) defines that member “M”, did favor for “The Boss” “T” times.

coupon(N,C) defines that a member “N” is currently having a coupon “C”.

discountMultiplication(C, F) defines that a coupon “C” gives “F” multiplication to the amount the member

has to pay to move up ranks.

All facts and rules are already defined except for one. Your task is to define a rule for:

actualPay(MemberName, RankToBuy, Amount) which is defined as follows:

* MemberName and RankToBuy are used as inputs.
* Amount is used as an output.
* if the member “MemberName”’s current rank is higher or equal to “RankToBuy”, then print “Not possible.” onto the console and the “Amount” is 0.
* else, if member “MemberName” does not have any coupon, then “Amount” is equal to the normal amount he has to pay to move from his current rank to “RankToBuy”.
* otherwise, the “Amount” is equal to the normal amount multiplied by the discount multiplication for the coupon that member “MemberName” currently has.

The following screenshots are example runs of the program (continued to next page):

![Graphical user interface, text, application

Description automatically generated]()

A picture containing text

Description automatically generated

![Text

Description automatically generated]()

These tests (and their expected results) are already in file “testcases.txt”.

**How to submit:**

rename mafiaPromote.pl as ID\_mafiaPromote.pl (using your ID number) and submit it as an assignment

on MyCourseville. **If you do not rename the file, your code will not be marked!!!!**