

Assignment 6

Due: 11:59pm Dec. 10 (Friday)

This assignment is done individually or by a group of 2 students. Each group please submits only ONE copy of the assignment.

* README – 2 points

* Input/output format (the function name and the number of arguments must be the same as those given in the assignment description) – 3 points

1. [30 points] Write a Prolog predicate **max(L,Res)** that computes the maximum integer of an integer list L and stores the result in Res. Assume that L contains at least 1 element. E.g. `?-max([1,3,5,4,2], Res).`
Res = 5

2. [30 points] Write a Prolog program **sum_even(L,Res)** that computes the sum of integers occurring at even positions of L (**assume that L contains at least TWO element**). E.g. `?- sum_even([2,3,4,5,1], Res).`
Res = 8 //3+5

3. [35 points] Write a Prolog program **delete_first_k(X,K,L,Res)** that deletes the first k occurrences of X in L and stores the result in Res. E.g. `?- delete_first_k(1,3,[2,1,3,1,4,1,5,1,6,1,7], Res).` // delete the first 3 1's
Res = [2,3,4,5,1,6,1,7].

Instruction of Submission:

- Write a Prolog program **assignment6.pl**
- Write a README file (text file, do not submit a .doc file) which contains
 - You name and email address.
 - Whether your code was tested on remote.cs.binghamton.edu.
 - (Optional) Briefly describe anything special about your submission that the TA should take note of.
- Place assignment 6 and README under one directory with a unique name (such as [userid]_6 for assignment 5, e.g. pyang_6).
- Tar the contents of this directory using the following command.
tar -cvf [directory_name].tar [directory_name]
E.g. `tar -cvf pyang_6.tar pyang_6/`
- Upload the tared file you created above on brightspace.binghamton.edu.

[Academic Honesty:](#)

All students should follow [Student Academic Honesty Code](https://www.binghamton.edu/watson/about/academic-honesty.html) (<https://www.binghamton.edu/watson/about/academic-honesty.html>). All forms of cheating will be treated with utmost seriousness. You may discuss the problems with other students, however, you must write your OWN codes and solutions. Discussing solutions to the problem is NOT acceptable. Copying an assignment from another student or allowing another student to copy your work may lead to an automatic **F** for this course. If you borrow small parts of code/text from Internet, you must acknowledge this in your submission. Also, you must clearly understand and be able to explain the material. Copying entire material or large parts of such material from the Internet will be considered academic dishonesty. Moss will be used to detect plagiarism in programming assignments. You need ensure that your code and documentation are protected and not accessible to other students. Use **chmod 700** command to change the permissions of your working directories before you start working on the assignments. If you have any questions about whether an act of collaboration may be treated as academic dishonesty, please consult the instructor before you collaborate.