Course Title: Mathematical Analysis for Computer Science
Course Code: CSE 361

#Assignment [Individual Task]

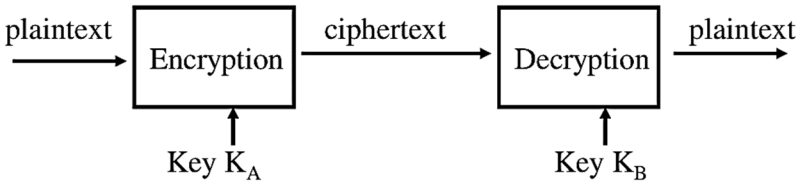
Task: **You need to propose/design/develop a cryptographic algorithm and have to illustrate the algorithmic outcome(s) using a test case.**

Here the steps you should follow:

i. Provide a name/title (idk, maybe a fancy one!) for your proposed algorithm.

ii. Design your own new cryptographic algorithm (encryption and decryption).

iii. Elucidate your encryption and decryption algorithm with an example (test case) and show the experimental results. Take a plaintext and apply your encryption algorithm to generate the ciphertext. Afterwards, apply your decryption algorithm on the ciphertext to retrieve the plaintext. You may use some sort of key(s) to control the operation and behavior of your cryptographic algorithm. i.e.,



iv. You may use different number theory concepts/logical operations (and so forth) while designing the algorithm. It is highly recommended to implement the proposed algorithm using a programming language.

Assignment Report: In the report, you should write the (encryption and decryption) algorithm(s) and/or pseudocode, add the flow chart(s) of your algorithm, an experimental example (using test case) to crosscheck the proposed algorithm, and also attach the source code (recommended) of your algorithm.

Submission: You have to submit the assignment report in a github repo as a **.md** file. Besides, upload the supporting file(s), add course info, student info (submitted by) and instructor info (submitted to) accordingly into the repo.

Presentation: Perhaps, you will get the floor to present your work in the classroom.

Deadline: TBA

PS. Don't just copy & paste others' work. I would appreciate your simple genuine work. GOOD LUCK!

Pankaj Bhowmik
Lecturer
Dept. of Computer Science and Engineering
Hajee Mohammad Danesh Science and Technology University, Dinajpur-5200