CIS 3362 Homework #3 - Coding Intensive Group
DES Implementation

Your program will implement DES. The goal of your program will be to run as fast as possible, so please use either C or C++. As a start, I will provide my own (slow) DES implementation in Java.

To test your program and minimize the impact of I/O, I will run your program by piping the input from a file, but in your program, please read from stdin. Also, please output to stdout. I will pipe the output of your program to a file so that it runs quickly.

Input Format

The first line of the input file will contain the key only, expressed in 16 hexadecimal characters, with the letters 'a' through 'f' being expression in lowercase. This key will include the correct checksum bits as required by the formal DES specification.

The second line of input will contain a single integer, *n*, representing the number of blocks of plaintext to encrypt.

The following *n* lines will each contain one block of plaintext represented in 16 hexadecimal characters, with the letters 'a' through 'f' being expression in lowercase.

Output File Format

Write out each block of cipher text in hexadecimal, one block per line, once again, using lowercase letters for 'a' through 'f'.

Note: A large test file with the correct output will be posted before the assignment due date.