Lab 10

Task 1

Write a program that will prompt the user to enter a string then your program encode it and after encode it decode it in original string.

Sample execution:

Enter string: **I study in PUCIT**

After Encoding: **O lzxrn of HXEOZ**

After Decoding: **I study in PUCIT**

(Encode string may be change in your output. it's according to your **XLAT table**)

Task 2

Being a good student hope you will create new CPU design as grand assignment of COAL subject. Suppose whole class copies it from one source. And that source that thinks is smart does not create all circuit of CU (Control Unit) (for example source skips add, multiply and power). He provides only one function and that is increment. After submission instructor becomes aware of this Democratic Cheating. In thunder he states that he will give all of you "F" grade (Sound Familiar). As usual you said sorry because it's the only asset you always have in this situation. Instructor assigns a penalty by saying "You have not provided add, multiply and power functions using design. Now your penalty is to provide these functions using programing."

Sound familiar story. Now your task is to provide following procedures:

- **Adder (uses increment statement as you know 5+4 = 5+1+1+1+1 (4 times increment))**
- **Multiply (uses increment statement as you know 5*4 = 5+5+5+5 (4 times add 5))**
- **Power ((uses increment statement as you know 5^4 = 5*5*5*5 (4 times multiply 5)))**
- **Main Procedure which provides all above task functionality as calculator.**