import java.io.BufferedReader;

import java.io.IOException;

import java.io.InputStreamReader;

import java.util.Scanner;

public class CeaserCipher

{

static Scanner sc = new Scanner(System.in);

static BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

public static void main(String[] args) throws IOException

{

System.out.print("Enter any String:");

String str = br.readLine();

System.out.print("\n Enter the Key: ");

int key = sc.nextInt();

String encrypted = encrypt(str, key);

System.out.println("\nEncrypted String is:" + encrypted);

String decrypted = decrypt(encrypted, key);

System.out.println("\nDecrypted String is: "+ decrypted);

System.out.println("\n");

}

public static String encrypt(String str,int key)

{

String encrypted = " ";

int c=0;

for(int i=0;i<str.length();i++)

{

c=str.charAt(i);

if(Character.isUpperCase(c))

{

c = c+(key%26);

if(c>'Z')

c=c-26;

}

else if(Character.isLowerCase(c))

{

c = c+(key %26);

if(c>'z')

c = c-26;

}

encrypted += (char)c;

}

return encrypted;

}

public static String decrypt(String str,int key)

{

String decrypted = " ";

int c=0;

for(int i=0;i<str.length();i++)

{

c=str.charAt(i);

if(Character.isUpperCase(c))

{

c = c-(key%26);

if(c<'A')

c=c+26;

}

else if(Character.isLowerCase(c))

{

c = c-(key %26);

if(c<'a')

c = c+26;

}

decrypted += (char)c;

}

return decrypted;

}

}

/\*

output:

Enter any string: Hello World

Enter the key:5

Encrypted string is: MJqqt Btwqr

Decrypted string is: Hello World

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