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**ASS-1: Ceaser Cipher**

**Encryption:**

**Input:**

1. A String of lower case letters, called Text.
2. An Integer between 0-25 denoting the required shift.

**Procedure:**

* Traverse the given text one character at a time .
* For each character, transform the given character as per the rule, depending on whether we’re encrypting or decrypting the text.
* Return the new string generated.

#include<bits/stdc++.h>

using namespace std;

int main()

{

   string str;

   cout<<"Enter PlainText:"<<endl;

   cin>> str;

   string result=" ";

   int key;

   cout<<"Enter Key:"<<endl;

   cin>>key;

   string ans;

   int n=str.length();

   for(int i=0;i<n;i++)

   {

      if(str[i]>='A'&&str[i]<='Z'){

        result += char(int(str[i]+key-65)%26 +65);

      }else{

        result += char(int(str[i]+key-97)%26 +97);

     }

   }

   cout<<"CipherText:"<<result<<endl;

   int  ch;

   for(int i = 0; result[i] != '\0'; ++i)

   {

      ch = result[i];

      if(ch >= 'a' && ch <= 'z'){

         ch = ch - key;

         if(ch < 'a'){

            ch = ch + 'z' - 'a' + 1;

         }

         result[i] = ch;

      }

      else if(ch >= 'A' && ch <= 'Z')

      {

         ch = ch - key;

         if(ch > 'a'){

         ch = ch + 'Z' - 'A' + 1;

         }

         result[i] = ch;

      }

   }

   cout << "Decrypted message: " << result<<endl;

   return 0;

}

**OUTPUT:**





