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VIGENERE CIPHER

```c
#include<stdio.h>
#include<string.h>

int main(){
   char msg[] = "THE CRAZY PROGRAMMER";
   char key[] = "HELLO";
   int msgLen = strlen(msg), keyLen = strlen(key), i, j;

   char newKey[msgLen], encryptedMsg[msgLen], decryptedMsg[msgLen];

   //generating new key
   for(i = 0, j = 0; i < msgLen; ++i, ++j){
      if(j == keyLen)
         j = 0;

      newKey[i] = key[j];
   }

   newKey[i] = '\0';

   for(i = 0; i < msgLen; ++i)

 encryptedMsg[i] = ((msg[i] + newKey[i]) % 26) + 'A';

   encryptedMsg[i] = '\0';


   for(i = 0; i < msgLen; ++i)
      decryptedMsg[i] = (((encryptedMsg[i] - newKey[i]) + 26) % 26) + 'A';

   decryptedMsg[i] = '\0';

   printf("Original Message: %s", msg);
   printf("\nKey: %s", key);
   printf("\nNew Generated Key: %s", newKey);
   printf("\nEncrypted Message: %s", encryptedMsg);
   printf("\nDecrypted Message: %s", decryptedMsg);
```

```
return 0;
}
```


C:\Users\Saibharathi\Documents\rsa.cpp - [Executing] - Dev-C++ 5.11

File   Edit   Search   View   Project   Execute   Tools   AStyle   Window   Help

C:\Users\Saibharathi\Documents\rsa.exe

```
Original Message: THECRAZYPROGRAMMER
Key: HELLO
New Generated Key: HELLOHELLOHELLOHEL
Encrypted Message: ALPNFHDJAFVKCLATIC
Decrypted Message: THECRAZYPROGRAMMER
-------------------------------
Process exited after 0.03067 seconds with return value 0
Press any key to continue . . .
```

Comp...

Abort Compilation

☐ Shorten compiler paths

```
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- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Saibharathi\Documents\rsa.exe
- Output Size: 129.431640625 KiB
- Compilation Time: 0.17s
```

29°C
Rain to stop

ENG
IN

13:49
07-10-2022