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(Q12) Write a program to implement one time pad (OTP) method.

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

int main()
{
    int i, j, len1, len2, numstr[100], numkey[100], numcipher[100];
    char str[100], key[100], cipher[100];
    printf("Enter a string text to encrypt\n");
    gets(str);
    for(i=0; j=0; i<strlen(str); i++)
    {
        if (str[i] != ' ')
        {
            str[j] = toupper(str[i]);
            j++;
        }
    }
    str[j] = '\0';
    for (i=0; i<strlen(str); i++)
    {
        numstr[i] = str[i] - 'A';
    printf("enter key string \n");
    gets(key);
```

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```
for(i=0 ;j=0; i<strlen(key); i++)
 {  if(key[i]!=' ')
    {
      key[j]=toupper(key[i]);
       j++;
    }
 }
   key[j]='\0';
    for(i=0; i<strlen(key);i++)
    { numkey[i]=key[i]-'A';
    }
    for(i=0; i<strlen(str); i++)
    {
      numcipher[i]=numstr[i]+numkey[i];
    }
    for(i=0; i<strlen(str); i++)
     { if(numcipher[i]>25)
      { numcipher[i]=numcipher[i]-26;
        }
        }
      Printf("one Time pad Ciphertext is \n");
       for(i=0 ;i<strlen(str); i++).
        { Printf("%c",(numcipher[i]+'A'));
        } Printf("\n");
          return 0;
}
```

```
C:\Users\goswa\Desktop\ds>gcc otp.c -o otp.exe

C:\Users\goswa\Desktop\ds>otp.exe
Enter a string text to encrypt
one time pad
Enter key string
perfect
One Time Pad Cipher text is
DRVYMOX8Aj

C:\Users\goswa\Desktop\ds>
```