

Q2 OTP method.

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

```
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] != '\0')
```

```
{
    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 of random text\n");
```

```
gets(key);
for(i=0; j=0; i<strlen(key); i++)
```

```
{
    if(key[i] != '\0')
```

```
{
    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 Cipher text is\n");
```

```
for(i=0; i<strlen(str); i++)
```

```
{
    printf("%c", (numCipher[i] + 'A'));
```

```
}
```

```
printf("\n");
```

```
}
```



```
Enter a string text to encrypt  
one time pad  
Enter key string of random text  
perfect  
One Time Pad Cipher text is  
DRVYMOXP∞Û
```

```
Process exited after 40.42 seconds with return value 0  
Press any key to continue . . .
```