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Q2 OTP

"One Time Pad" "perfect"

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

main()
```

```
{
    int i, j, len1, len2, numstr[100], numkey[100], numcipher[100];
    char str[200], key[200], cipher[200];
    printf("Enter a string\n");
    gets(str);
    for (i = 0, j = 0; i < strlen(str); i++) {
        if (str[i] != '\0')
            str[j] = tolower(str[i]);
            j++;
    }
    str[j] = '\0';
    for (i = 0; i < strlen(str); i++)
        numstr = str[i] - 'A';
    printf("Enter the string ");
    gets(key);
    for (i = 0, j = 0; i < strlen(key); i++) {
        if (key[i] != '\0')
            key[j] = tolower(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("OTP cipher: ");
for (i = 0; i < strlen(str); i++)
{
    printf("%c", (numcipher[i] + 'A'));
}
printf("\n");

```