#include <stdio.h>

#include <ctype.h>

#include <string.h>

void caesarEncrypt(char\* message, int shift) {

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

char ch = message[i];

if (isalpha(ch)) {

char base = islower(ch) ? 'a' : 'A';

message[i] = (ch - base + shift) % 26 + base;

}

}

}

void caesarDecrypt(char\* message, int shift) {

caesarEncrypt(message, 26 - (shift % 26));

}

int main() {

char message[1000];

int shift;

printf("Enter a message: ");

fgets(message, sizeof(message), stdin);

size\_t len = strlen(message);

if (message[len - 1] == '\n') {

message[len - 1] = '\0';

}

printf("Enter shift amount (1-25): ");

scanf("%d", &shift);

shift = shift % 26;

char encrypted[1000], decrypted[1000];

strcpy(encrypted, message);

strcpy(decrypted, message);

caesarEncrypt(encrypted, shift);

caesarDecrypt(decrypted, shift);

printf("Encrypted message: %s\n", encrypted);

printf("Decrypted message: %s\n", decrypted);

return 0;

}

