#include <stdio.h>

#include <string.h>

#include <ctype.h>

void encrypt(char\* message, int key) {

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

char ch = message[i];

if (isalpha(ch)) {

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

ch = (ch - base + key) % 26 + base;

}

message[i] = ch;

}

}

void decrypt(char\* message, int key) {

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

char ch = message[i];

if (isalpha(ch)) {

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

ch = (ch - base - key + 26) % 26 + base;

}

message[i] = ch;

}

}

int main() {

char message[1000];

int key, choice;

printf("Enter a message: ");

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

message[strcspn(message, "\n")] = 0;

printf("Enter key (shift): ");

scanf("%d", &key);

printf("Choose operation:\n");

printf("1. Encrypt\n");

printf("2. Decrypt\n");

printf("Enter your choice: ");

scanf("%d", &choice);

if (choice == 1) {

encrypt(message, key);

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

} else if (choice == 2) {

decrypt(message, key);

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

} else {

printf("Invalid choice.\n");

}

return 0;

}

