main.c

Run

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

// Function to find modular inverse of a under
    modulo m
int mod_inverse(int a, int m) {
    a = a % m;
    for (int x = 1; x < m; x++) {
        if ((a * x) % m == 1)
            return x;
    }
    return -1; // Inverse doesn't exist
}

int is_coprime(int a, int m) {
    for (int i = 2; i <= a && i <= m; i++) {
```

Output

Clear

```
Enter plaintext: HELLO
Enter key 'a' (must be coprime with 26): 5
Enter key 'b': 8
Encrypted: RCLLA
Decrypted: HELLO


=== Code Execution Successful ===
```

main.c

Run

Output

Clear

```
70      if (!is_coprime(a, 26)) {
71          printf("Invalid 'a': Not coprime with 26
                . Encryption/Decryption will fail
                .\n");
72          return 1;
73      }
74
75      printf("Enter key 'b': ");
76      scanf("%d", &b);
77
78      encrypt_text(plaintext, ciphertext, a, b);
79      printf("Encrypted: %s\n", ciphertext);
80
81      decrypt_text(ciphertext, decrypted, a, b);
82      printf("Decrypted: %s\n", decrypted);
83
84      return 0;
85  }
```

```
Enter plaintext: HELLO
Enter key 'a' (must be coprime with 26): 5
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=== Code Execution Successful ===
```