

EXPERIMENT- 01: CAESAR CIPHER TECHINQUE

PROGRAM:

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

void encrypt(char *text, int shift) {
    for (int i = 0; text[i] != '\0'; i++) {
        char c = text[i];
        if (c >= 'a' && c <= 'z') {
            text[i] = (c - 'a' + shift) % 26 + 'a';
        } else if (c >= 'A' && c <= 'Z') {
            text[i] = (c - 'A' + shift) % 26 + 'A';
        }
    }
}

void decrypt(char *text, int shift) {
    for (int i = 0; text[i] != '\0'; i++) {
        char c = text[i];
        if (c >= 'a' && c <= 'z') {
            text[i] = (c - 'a' - shift + 26) % 26 + 'a';
        } else if (c >= 'A' && c <= 'Z') {
            text[i] = (c - 'A' - shift + 26) % 26 + 'A';
        }
    }
}

int main() {
    int choice, shift;
    char text[100];

    printf("Select 1 for Encryption or 2 for Decryption: ");
    scanf("%d", &choice);
    printf("Enter the shift value: ");
    scanf("%d", &shift);
    printf("Enter the text: ");
    scanf("%[^\n]", text);

    if (choice == 1) {
        encrypt(text, shift);
        printf("Encrypted text: %s\n", text);
    } else if (choice == 2) {
        decrypt(text, shift);
        printf("Decrypted text: %s\n", text);
    } else {
        printf("Invalid choice.\n");
    }

    return 0;
}
```

output:

Output

Select 1 for Encryption or 2 for Decryption: 1

Enter the shift value: 3

Enter the text: soma sekhar reddy

Encrypted text: vrpv vhnkdu uhggv

=== Code Execution Successful ===