

Experiment no: 1a

Date: 23/1/24

Caesar Cipher

AIM:

To Write the C program to perform Caesar Cipher for Both Encryption And Decryption process

ALGORITHM:

- Step 1: START
- Step 2: ~~Encrypt~~ Define two function Namely encrypt() And Decrypt
- Step 3: In Encrypt function, check all the Message And Perform Encryption
- Step 4: In Decrypt function, ~~check~~ retrieve the Message from the Encryption And Decrypt the Message
- Step 5: Print "Enter the Message" And Get the Input from the User
- Step 6: print "Enter the key" And get the Input from the User
- Step 7: perform Encryption And Decryption And print the Answer
- Step 8: STOP

Exp 1 : Caesar Cipher

Code:

```
<!DOCTYPE html>
What
#include <stdio.h>

void encrypt(char message[], int key) {
    int i = 0;
    char ch;
    while (message[i] != '\0') {
        ch = message[i];
        if (ch >= 32 && ch <= 126) {
            ch = (ch + key - 32) % 95 + 32;
        }
        message[i] = ch;
        i++;
    }
}

void decrypt(char message[], int key) {
    int i = 0;
    char ch;
    while (message[i] != '\0') {
        ch = message[i];
        if (ch >= 32 && ch <= 126) {
            ch = (ch - key - 32 + 95) % 95 + 32;
        }
        message[i] = ch;
        i++;
    }
}

int main() {
    char message[100];
    int key;

    printf("Enter the message: ");
    fgets(message, sizeof(message), stdin);

    printf("Enter the key (0-95): ");
    scanf("%d", &key);

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

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

    return 0;
}
```

Output:

Enter the message: Jeff@123

Enter the key (0-95): 6

Encrypted message: Pk11F789

Decrypted message: Jeff@123