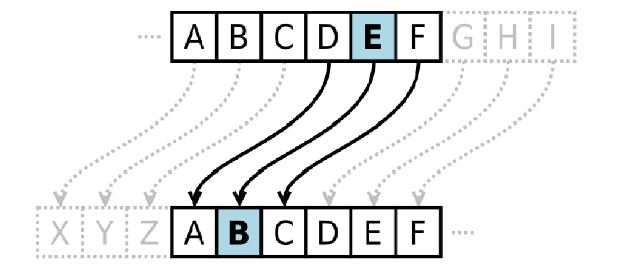
**AIM: To implement the simple substitution technique named Caesar cipher using C language.**

**DESCRIPTION:** To encrypt a message with a Caesar cipher, each letter in the message is changed using a simple rule: shift by three. Each letter is replaced by the letter three letters ahead in the alphabet. A becomes D, B becomes E, and so on. For the last letters, we can think of alphabet as a circle and "wrap around". W becomes Z, X becomes A, Y becomes B, and Z becomes C. To change a message back, each letter is replaced by the one three before it.

**EXAMPLE:**



**ALGORITHM:**

STEP-1: Read the plain text from the user.

STEP-2: Read the key value from the user.

STEP-3: If the key is positive then encrypt the text by adding the key with each character in the plain

text.

STEP-4: Else subtract the key from the plain text.

STEP-5: Display the cipher text obtained above.

**PROGRAM: (Caesar Cipher)**

#include <stdio.h>

#include <string.h>

#include<conio.h>

#include <ctype.h>

void main()

{

char plain[10], cipher[10];

int key,i,length;

int result;

clrscr();

printf("\n Enter the plain text:");

scanf("%s", plain);

printf("\n Enter the key value:");

scanf("%d", &key);

printf("\n \n \t PLAIN TEXt: %s",plain);

printf("\n \n \t ENCRYPTED TEXT: ");

for(i = 0, length = strlen(plain); i < length; i++)

{

cipher[i]=plain[i] + key;

if (isupper(plain[i]) && (cipher[i] > 'Z'))

cipher[i] = cipher[i] - 26;

if (islower(plain[i]) && (cipher[i] > 'z'))

cipher[i] = cipher[i] - 26;

printf("%c", cipher[i]);

}

printf("\n \n \t AFTER DECRYPTION : ");

for(i=0;i<length;i++)

{

plain[i]=cipher[i]-key;

if(isupper(cipher[i])&&(plain[i]<'A'))

plain[i]=plain[i]+26;

if(islower(cipher[i])&&(plain[i]<'a'))

plain[i]=plain[i]+26;

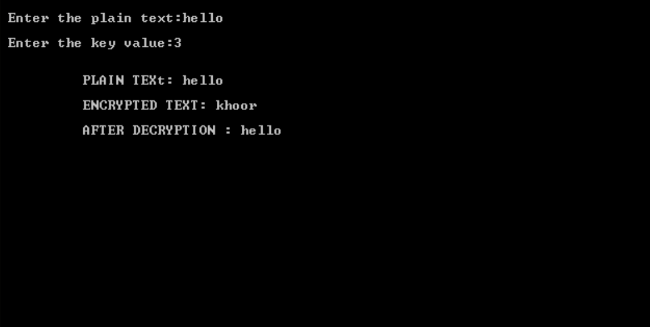
printf("%c",plain[i]);

}

getch();

}

**OUTPUT:**

****