**VIGENERE CIPHER**

**SOURCE CODE:**

#include <stdio.h>

#include<conio.h>

#include <ctype.h>

#include <string.h>

void encipher();

void decipher();

void main()

{

int choice;

clrscr();

while(1)

{

printf("\n1. Encrypt Text");

printf("\t2. Decrypt Text");

printf("\t3. Exit");

printf("\n\nEnter Your Choice : ");

scanf("%d",&choice);

if(choice == 3)

exit(0);

else if(choice == 1)

encipher();

else if(choice == 2)

decipher();

else

printf("Please Enter Valid Option.");

}

}

void encipher()

{

unsigned int i,j;

char input[50],key[10];

printf("\n\nEnter Plain Text: ");

scanf("%s",input);

printf("\nEnter Key Value: ");

scanf("%s",key);

printf("\nResultant Cipher Text: ");

for(i=0,j=0;i<strlen(input);i++,j++)

{

if(j>=strlen(key))

{ j=0;

}

printf("%c",65+(((toupper(input[i])-65)+(toupper(key[j])-

65))%26));

}}

void decipher()

{

unsigned int i,j;

char input[50],key[10];

int value;

printf("\n\nEnter Cipher Text: ");

scanf("%s",input);

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

scanf("%s",key);

for(i=0,j=0;i<strlen(input);i++,j++)

{

if(j>=strlen(key))

{ j=0; }

value = (toupper(input[i])-64)-(toupper(key[j])-64);

if( value < 0)

{ value = value \* -1;

}

printf("%c",65 + (value % 26));

}}

**OUTPUT:**

