EXPERIMENT-4:- Write a C program for polyalphabetic substitution cipher uses a separate monoalphabetic substitution cipher for each successive letter of plaintext, depending on a key.

Program:-

#include<stdio.h>

#include<conio.h>

#include<string.h>

int main()

{

char pt[20]={'\0'},ct[20]={'\0'},key[20]={'\0'},rt[20]={'\0'};

int i,j;

int clrscr();

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

scanf("%s",pt);

printf("\n enter the key:"); j=0;

scanf("%s",key);

for(i=strlen(key);i<strlen(pt);i++)

{

if(j==strlen(key))

{

j=0;

}

key[i]=key[j];

j++;

}

printf("\n new key is:%s",key);

for(i=0;i<strlen(pt);i++)

{

ct[i]=(((pt[i]-97)+(key[i]-97))%26)+97;

}

printf("\n \n cipher text is:%s",ct);

for(i=0;i<strlen(ct);i++)

{

if(ct[i]<key[i])

{

rt[i]=26+((ct[i]-97)-(key[i]-97))+97;

}

else

rt[i]=(((ct[i]-97)-(key[i]-97))%26)+97;

}

printf("\n \n plain text is:%s",rt);

getch();

}

Output:-

