PRACTICAL-2

AIM: Implement monoalphabetic cipher encryption and decryption algorithm.

EXPLANATION:

- Monoalphabetic cipher is a substitution cipher in which for a given key, the cipher alphabet for each plain alphabet is fixed throughout the encryption process.
- For example, if ‘A’ is encrypted as ‘D’ , for any number of occurence in that plain text, ‘A’ will always get encrypted to ‘D’.
- There are many different monoalphabetic substitution ciphers, in fact infinitely many, as each letter can be encrypted to any symbol, not just another letter.

CODE:

```
#include<stdio.h>
#include<string.h>
#include<conio.h>
char pt[30],c[27],ct[30];
int i,j,index;
void encrypt(char ct[],char c[]);
void decrypt(char pt[],char c[]);
int main(){
printf("enter your plaintext:");
gets(pt);
printf("enter your key:");
 for(i=0;i<26;i++)
 {
 printf("%c-",i+97);
 c[i]=getch();
 printf("%c , ",c[i]);
 }
 for(i=0;i<strlen(pt);i++)
 {
 index=pt[i]-97;
```

```
 ct[i]=c[index];
 }
encrypt(ct,c);
decrypt(pt,c);
return 0;
}
void encrypt(char ct[], char c[]){
 printf("\n\ncipher Text is : ");
 for(i=0;i<strlen(pt);i++)
 { printf("%c",ct[i]);}
 for(i=0;i<strlen(pt);i++)
 { ct[i]=pt[i];}
}
void decrypt(char pt[], char c[]) {
 printf("\n\nPlain Text is : ");
 for(i=0;i<strlen(pt);i++)
 { printf("%c",ct[i]);}
}
```

OUTPUT: