

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 occurrence 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:

```

C:\Users\bhumit\Documents\Untitled12.exe
enter your plaintext:hello
enter your key:a-z , b-y , c-x , d-w , e-v , f-u , g-t , h-s , i-r , j-q , k-p , l-o , m-n , n-m , o-l , p-k , q-j , r-i
, s-h , t-g , u-f , v-e , w-d , x-c , y-b , z-a ,

cipher Text is : svoool

Plain Text is : hello
-----
Process exited after 91.88 seconds with return value 0
Press any key to continue . . .

```

```

C:\Users\bhumit\Documents\Untitled12.exe
enter your plaintext:bhumi
enter your key:a-q , b-w , c-e , d-r , e-t , f-y , g-u , h-i , i-o , j-p , k-l , l-k , m-j , n-h , o-g , p-f , q-d , r-s
, s-a , t-z , u-x , v-c , w-v , x-b , y-n , z-m ,

cipher Text is : wixjoz

Plain Text is : bhumi
-----
Process exited after 80.54 seconds with return value 0
Press any key to continue . . .

```

