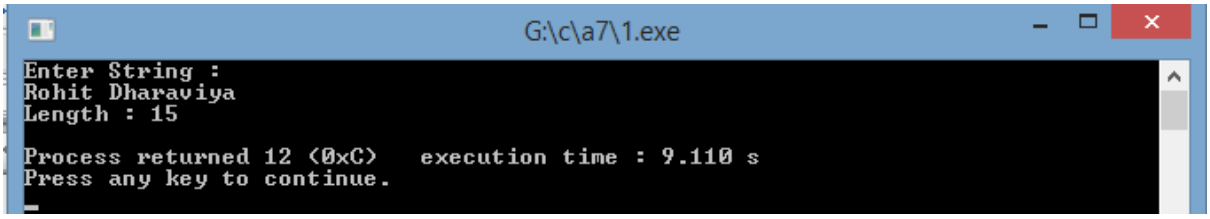
Table of Contents

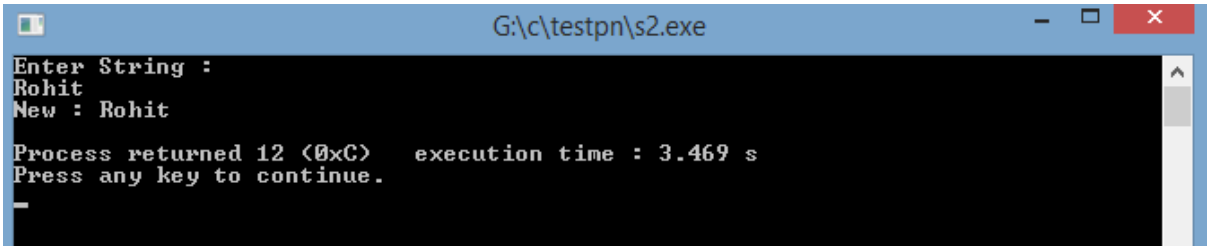
1) Write a program to find string length using pointer.

```
#include<stdio.h>
main()
{
	char s[20],*cp;
	int i=0;
	printf("Enter String : \n");
	gets(s);
	/*
	while(*cp)
	{
	i++;
	cp++;
	}*/
	//for(i=0;s[i];i++);
	for(cp=s,i=0;*cp;cp++,i++);
	printf("Length : %d\n",i);

}
```



2) Write a one line code to copy the string into another buffer.

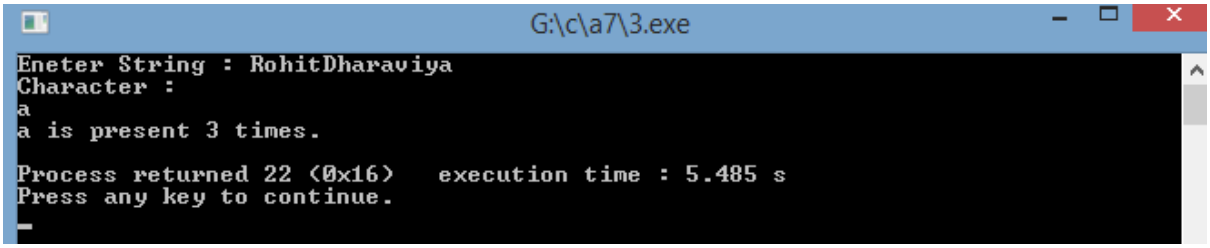
```
#include<stdio.h>

main()
{
	char s[20],d[20],*cp=s,*dp=d;
	int i;

	printf("Enter String : \n");
	scanf("%s",s);
	for(;*dp++=*cp++;);

	//while(*dp++=*cp++);
	//for(i=0;d[i++]=s[i];);

	//for(i=0;s[i];d[i]=s[i],i++);
	//d[i]='\0';
	printf("New : %s\n",d);
}
```



3) Write a program to find the no. of times the character is found in a given string.

```
#include<stdio.h>

main()
{
	char s[20],ch;
	int i,k=0;

	printf("Eneter String : ");
	gets(s);

	printf("Character :\n");
	scanf("%c",&ch);

	for(i=0;s[i];i++)
	{
	if(s[i]==ch)
	{
		k++;
	}
	}
	if(k>0)
	{
```

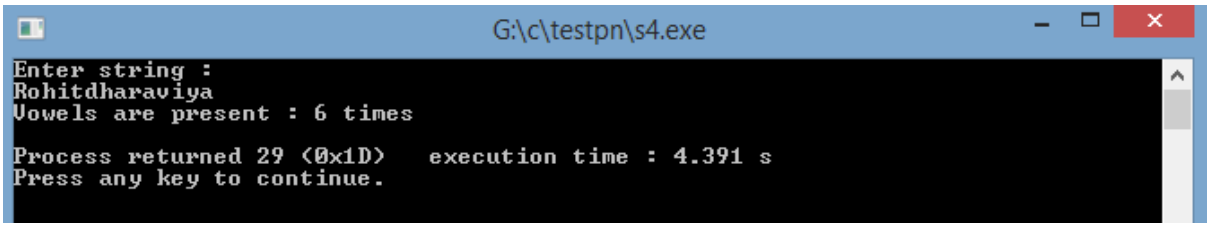
```
        printf("%c is present %d times.\n",ch,k);
        }
        else
        {
        printf("%c is not present in the string\n",ch);
        }
}
```



4) Write a program to find vowels in a given string.

```
#include<stdio.h>

main()
{
        char s[20],*cp;
        int i,count=0;

        printf("Enter string : \n");
        scanf("%s",s);

        for(i=0;s[i];i++)
        {

        switch(s[i])
        {
        case 'a':
        case 'A':

        case 'e':
        case 'E':

        case 'i':
```

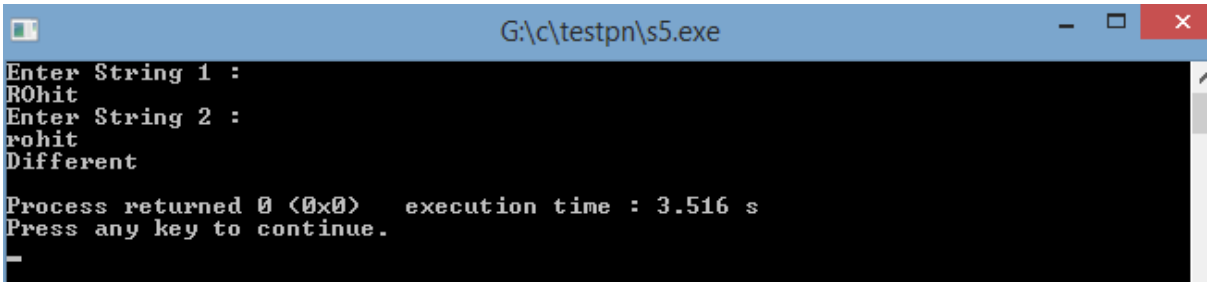
```
        case 'I':


        case 'o':

        case 'O':


        case 'u':

        case 'U':

        count++;

        }

        //if(s[i]=='a' || s[i] == 'e' || s[i]=='i' || s[i] =='o' || s[i] == 'u' || s[i]=='A' || s[i] == 'E' || s[i]=='I' || s[i] =='O' || s[i] == 'U' )

        }


        printf("Vowels are present : %d times\n",count);

}
```



5) Write a program to compare two strings without using strcmp function.

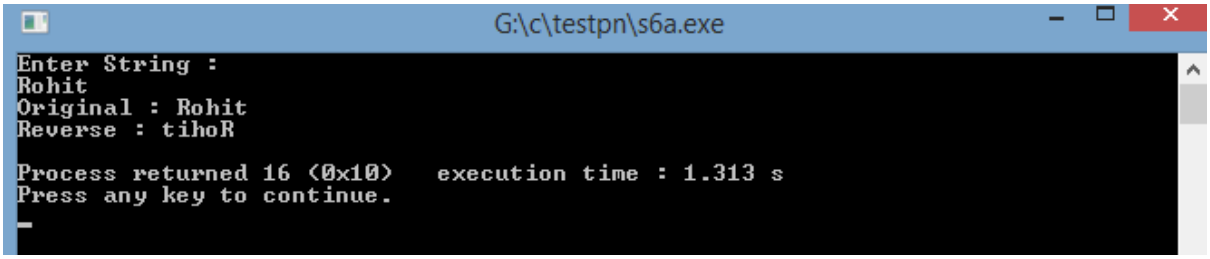
```
#include<stdio.h>
main()
{
	char s[20],d[20];
	int i;

	printf("Enter String 1 : \n");
	scanf("%s",s);

	printf("Enter String 2 : \n");
	scanf("%s",d);

	for(i=0;s[i];i++)
	{
	if(s[i] != d[i])
	break;
	}
	if(s[i] == d[i])
	printf("Same\n");
	else
	printf("Different\n");
}
```


G:\c\testpn\s5.exe
Enter String 1 :
Rohit
Enter String 2 :
Rohit
Same
Process returned 0 (0x0)   execution time : 8.362 s
Press any key to continue.


G:\c\testpn\s5.exe
Enter String 1 :
ROhit
Enter String 2 :
rohit
Different
Process returned 0 (0x0)   execution time : 3.516 s
Press any key to continue.

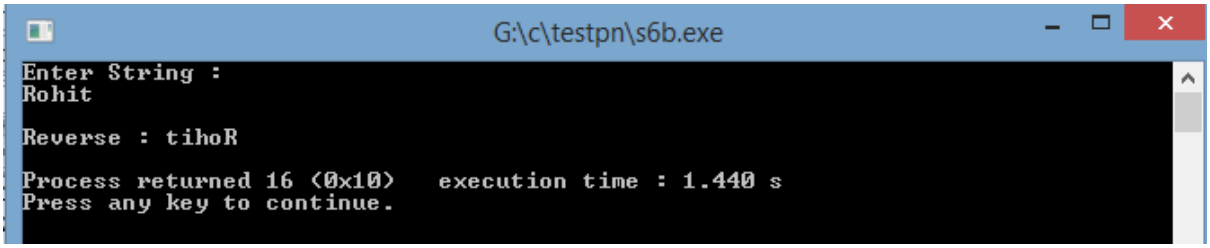
6) Write a program to reverse the string using loops & recursion.

```
#include<stdio.h>

main()
{
	char s[20],c;
	int i,j;

	printf("Enter String : \n");
	scanf("%s",s);

	printf("Original : %s\n",s);

	for(i=0;s[i];i++);

	for(i=i-1,j=0;i>j;i--,j++)
	{
	c=s[i];
	s[i]=s[j];
	s[j]=c;
	}
	printf("Reverse : %s\n",s);
}
```



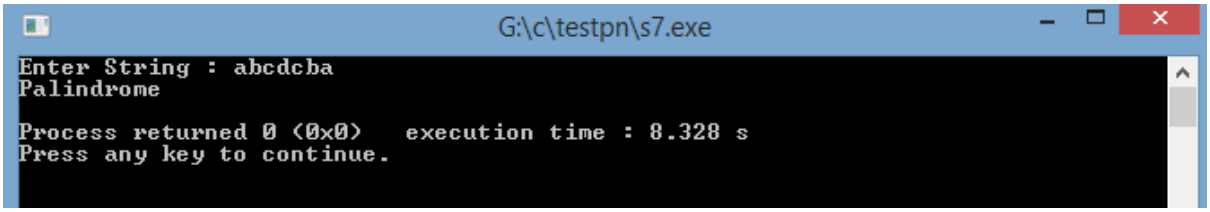

```
#include<stdio.h>
void my_rev_rec(char *,char*);

main()
{
	char s[20],c,*p,*q;
	int i,j,len;

	printf("Enter String : \n");
	scanf("%s",s);

	for(i=0;s[i];i++);
	len=i;
	q = s+len-1;
	my_rev_rec(s,q);
	printf("\n");

	printf("Reverse : %s\n",s);
}
```

```
void my_rev_rec(char*p, char*cp)
{
        char t;

        if(p < cp)
        {
        t = *p;
        *p = *cp;
        *cp = t;

        my_rev_rec(p+1,cp-1);
        }
}
```



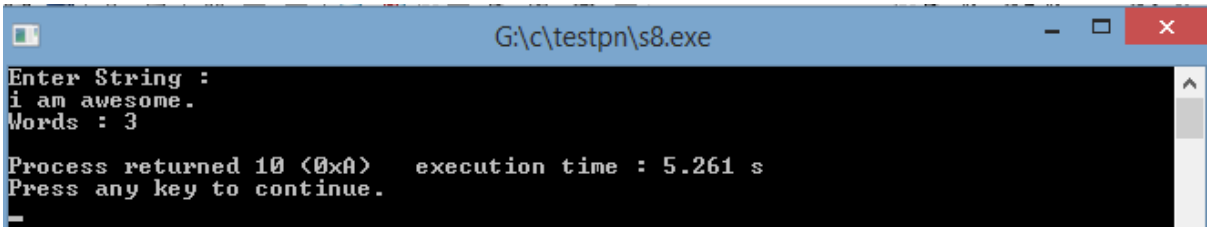
7) Write a program to check the given strings are palindrome or not.

```
#include<stdio.h>

main()
{
	char s[20];
	int i,j;

	printf("Enter String : ");
	scanf("%s",s);

	for(i=0;s[i];i++);

	for(i=i-1,j=0;i>j;i--,j++)
	{
	if(s[i] != s[j])
	break;
	}
	if(i==j)
	printf("Palindrome\n");
	else
	printf("Not...\n");
}
```


G:\c\testpn\s7.exe
Enter String : abcdcba
Palindrome
Process returned 0 (0x0)   execution time : 8.328 s
Press any key to continue.

8) Write a program to find the no. of words are present in a given string line.

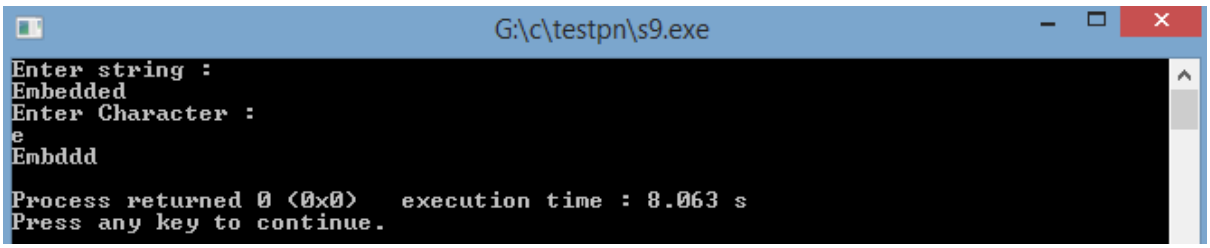
```
#include<stdio.h>


main()
{
        char s[50];
        int i,c = 1,j = 0;
        printf("Enter String : \n");
        gets(s);


        for(i=0;s[i];i++)
        {
        if(s[i]==32 && s[i+1] !=32)
        c++;
        }
        s[j]='\0';


        printf("Words : %d\n",c);
}
```



9) Write a program to delete a desired character in a given string.

```
#include<stdio.h>

main()
{
        char s[20],c;
        int i,j;

        printf("Enter string : \n");
        scanf("%s",s);


        printf("Enter Character : \n");
        scanf(" %c",&c);


        j=0;
        for(i=0;s[i];i++)
        {
        if(s[i] == c)
        continue;
        s[j++] = s[i];
        }
```

```
        s[j]='\0';

        printf("%s\n",s);


        /*for(i=0;s[i];i++)
        {
        if(s[i]==c)
        {
                for(j=i;s[j];j++)
                {
                        s[j]=s[j+1];
                }
                i--;
        }
        }*/

        //printf("%s\n",s);
}
```



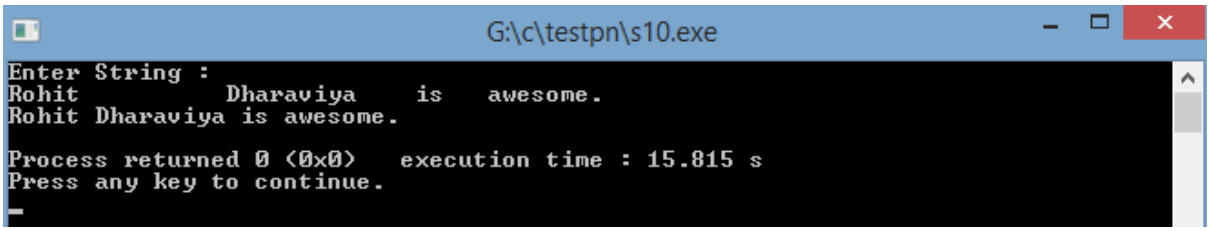
10) Write a program to remove the conjucutive spaces in a given string line.

Ex: Input: Vector India Pvt Ltd

Output: Vector India Pvt Ltd;

```
#include<stdio.h>

main()
{
        char s[50];
        int i,j=0;

        printf("Enter String : \n");
        gets(s);

        j=0;

        for(i=0;s[i];i++)
        {
        if(s[i]==32 && s[i+1]==32)
        continue;
        s[j++]=s[i];
        }
        s[j]='\0';
```

```
    printf("%s\n",s);
}
```


G:\c\testpn\s10.exe
Enter String :
Rohit   Dharaviya   is   awesome.
Rohit Dharaviya is awesome.
Process returned 0 (0x0)   execution time : 15.815 s
Press any key to continue.

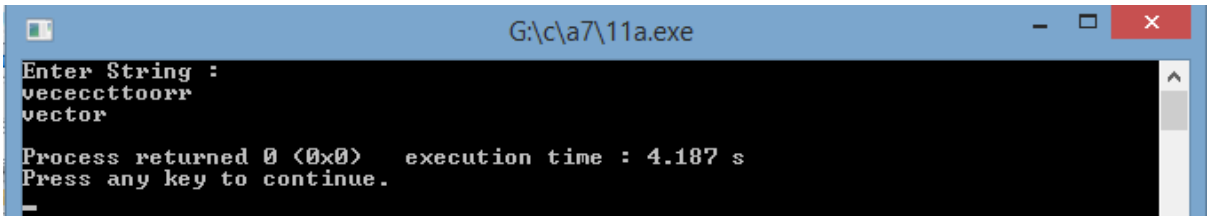
11) Write a program to delete the duplicate characters in a given string.

Ex: Input : vecteeovvorr

Output : vector

```
#include<stdio.h>

main()
{
	char s[20],i,j,k;

	printf("Enter String : \n");
	gets(s);

	for(i=0;s[i];i++)
	{
	for(j=i+1;s[j];j++)
	{
		if(s[i] == s[j])
		{
			for(k=j;s[k];k++)
			{
				s[k] = s[k+1];
			}
```

```
                    j--;
                }
        }
        }
        printf("%s\n",s);
}
```


G:\c\a7\11a.exe
Enter String :
vececcttoorr
vector
Process returned 0 (0x0)   execution time : 4.187 s
Press any key to continue.

12) Write a program to print the count of duplicate characters in a given string.

Ex: Input : “hrithik roshan”

Output: Letter ------- Count

h ------- 3

r ------- 2

i ------- 2

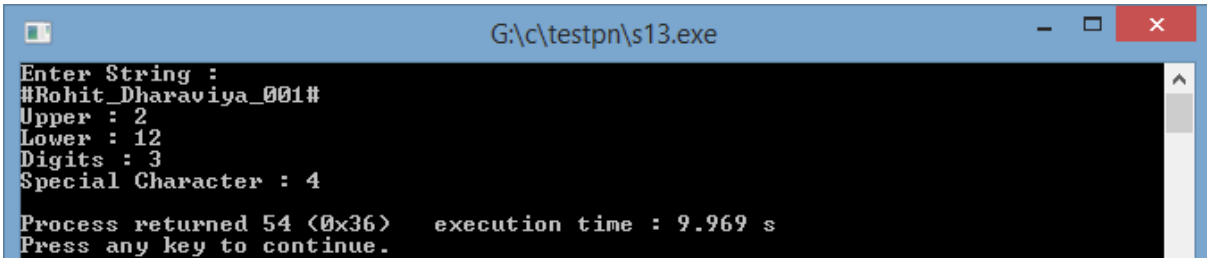
```
#include<stdio.h>

main()
{
        char s[30],ch='a';
        int i,j,k;

        printf("Enter String : \n");
        gets(s);

        while(ch<='z')
        {
        j=0;
        for(i=0;s[i];i++)
        {
                if(s[i]==ch)
```

```
            j++;
        }
        if(j>1)
        printf("%c : %d\n",ch,j);
        ch++;
        }
}
```

13) Write a program to find count of Lower characters, Upper characters, Special characters and digits occured in a given string.

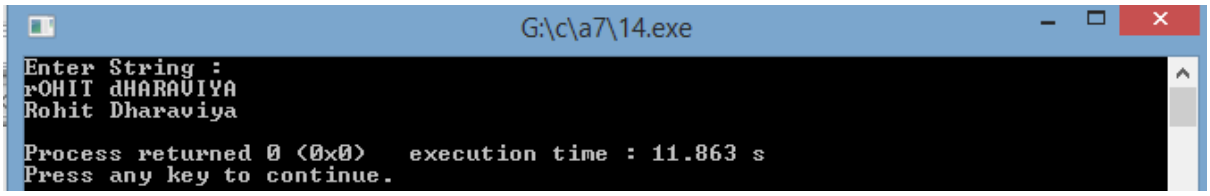
```
#include<stdio.h>
main()
{
        char s[30];
        int i,u,l,st,d;
        char c;

        printf("Enter String : \n");
        gets(s);

        u=l=st=d=0;

        for(i=0;s[i];i++)
        {
        if(s[i] >= 65 && s[i] <= 90)
                u++;
        else if(s[i] >= 97 && s[i] <= 122)
                l++;
        else if(s[i] >= 48 && s[i] <= 57)
                d++;
        else
                st++;
```

```
    }
    printf("Upper : %d\nLower : %d\nDigits : %d\nSpecial Character : %d\n",u,l,d,st);
}''
```



14) Write a program to convert the characters Upper to Lower and Lower to Upper in a given string.

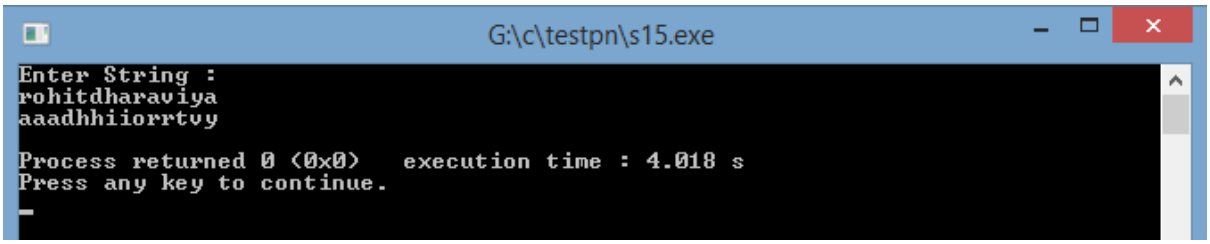
```
#include<stdio.h>


main()
{
        char s[30];
        int i;


        printf("Enter String : \n");
        gets(s);


        for(i=0;s[i];i++)
        {
        if(s[i] == 32)
        continue;
        s[i]=s[i] ^ 32;
        }
        printf("%s\n",s);
}
```



15) Write a program to sort a given string in ascending order.

```
#include<stdio.h>
main()
{
	char s[50],c;
	int i,j;


	printf("Enter String : \n");
	gets(s);

	for(i=0;s[i];i++)
	{
	for(j=i+1;s[j];j++)
	{
		if(s[i]>s[j])
		{
			c=s[i];
			s[i]=s[j];
			s[j]=c;
		}
	}
	}
```

```
    printf("%s\n",s);
}
```


G:\c\testpn\s15.exe
Enter String :
rohitdharaviya
aaadhhiiorrtvy
Process returned 0 (0x0)   execution time : 4.018 s
Press any key to continue.

16) Write a program to accept two strings from user into two character array and copy one by one character into another destination array.

Ex: First String : “abcdefg”

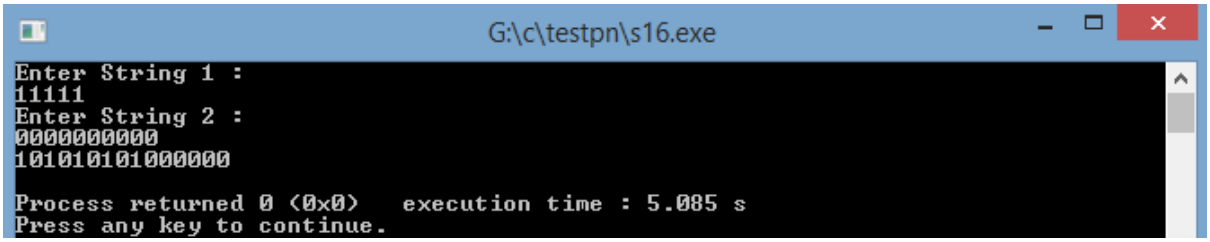
Second String : “1234”

then Destination String is “a1b2c3d4efg”

```
#include<stdio.h>

main()
{
        char s1[20],s2[20],d[40];
        int i,j,k,l,ls1,ls2;

        printf("Enter String 1 : \n");
        scanf("%s",s1);

        printf("Enter String 2 : \n");
        scanf("%s",s2);

        for(i=0;s1[i];i++);
        ls1=i;
        for(j=0;s2[j];j++);
        ls2=j;
```

```
if(ls1<ls2)
k=ls1;
else
k=ls2;

l=0;

for(i=0,j=0;i<k;i++,j++)
{
d[l++]=s1[i];
d[l++]=s2[j];
}


if(k==ls1) // k == ls1
{
while(s2[j])
{
        d[l++]=s2[j++];
}

}
else
```

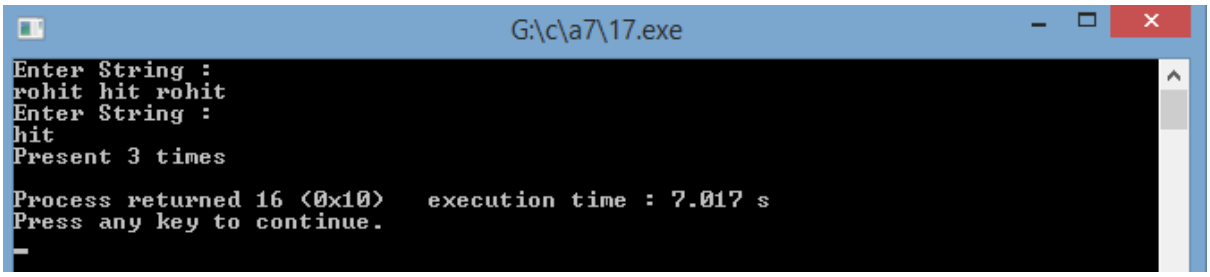
```
        {
        while(s1[i])
        {
                d[l++]=s1[i++];
        }
        }
        d[l]='\0';

        printf("%s\n",d);

}
```



17) Write a program to find the no. of times substring is found in a given string.

```
#include<stdio.h>

main()
{
	char m[30],s[20];
	int i,j,k=0;

	printf("Enter String : \n");
	gets(m);

	printf("Enter String : \n");
	gets(s);

	for(i=0;m[i];i++)
	{
	if(m[i] == s[0])
	{
		for(j=1;s[j];j++)
		{
			if(s[j]!=m[i+j])
			break;
		}
```

```
            if(s[j]=='\0')
            k++;
        }
        }

        printf("Present %d times\n",k);
}
```



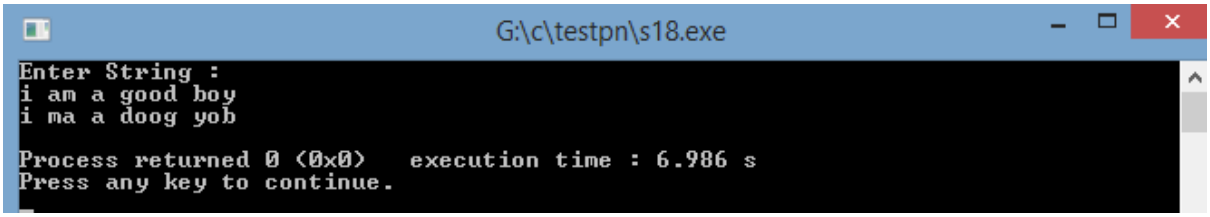
18) Write a program to reverse the words in a given string line.

Ex : “I am a good boy”

“I ma a doog yob”

```
#include<stdio.h>
main()
{
        char s[50],c,t;
        int i,j,k,len,m,n;

        printf("Enter String : \n");
        gets(s);

        for(i=0;s[i];i++);
        len=i;

        for(i=0;s[i];i++)
        {
        m=i;
        for(;s[i]!=32 && s[i];i++);
        n=i-1;
        for(;m<n;m++,n--)
        {
                t=s[m];
```

```
            s[m]=s[n];
            s[n]=t;
        }
        }
        printf("%s\n",s);

}
```



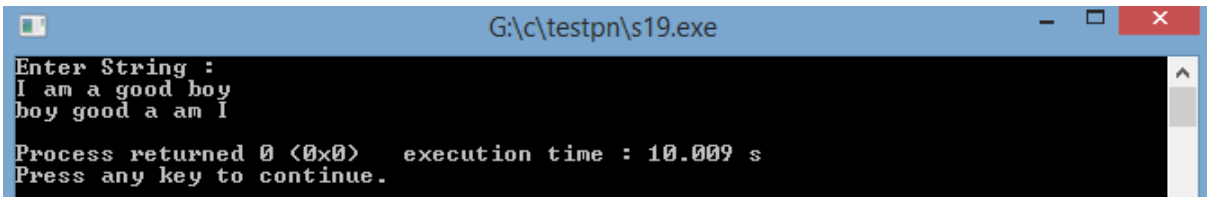
19) Write a program to replace the words in reverse order in a given string line.

Ex: Input : “world changed your thoughts”

Output : “thoughts your changed world”

```
#include<stdio.h>

main()
{
        char s[50],c,t;
        int i,j,k,len,m,n;

        printf("Enter String : \n");
        gets(s);

        for(i=0;s[i];i++);
        len=i;

        for(i=0,j=len-1;i<j;i++,j--)
        {
        c=s[i];
        s[i]=s[j];
        s[j]=c;
        }
```

```
        printf("%s\n",s);
        for(i=0;s[i];i++)
        {
        m=i;
        for(;s[i]!=32 && s[i];i++);
        n=i-1;
        for(;m<n;m++,n--)
        {
                t=s[m];
                s[m]=s[n];
                s[n]=t;
        }
        }


        printf("%s\n",s);

}
```



20) Write a program to declare an array of string pointers. Use function "input" to input the strings from stdin into array of string pointers, sort them in ascending order according to string length.

Note: Use DMA.

21) Write a program to read two strings through the keyboard like the following example and replace any word of the second string with the first string.

Ex: Input:- Fist String : “Tomorrow”

Second String : “Today is Sunday”

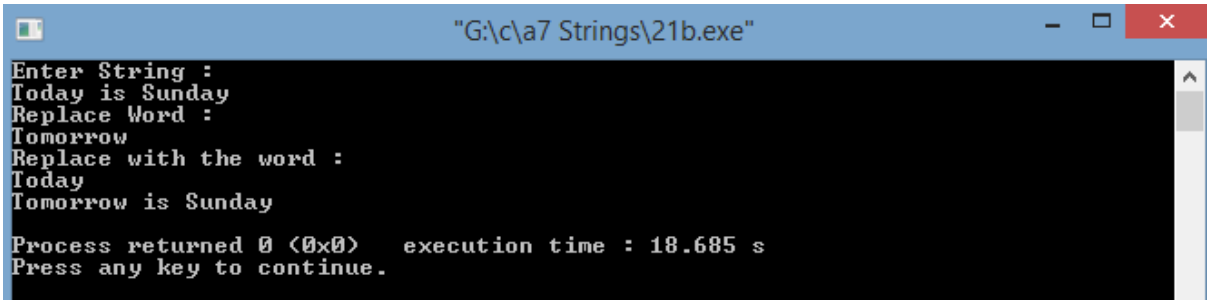
Replace word : “Today”.

Output:- “Tomorrow is Sunday”

```
#include<stdio.h>
#include<string.h>

main()
{
        char s1[30],s2[30],s3[20];
        int i,j,k,l1,l2,l3,m,l,c;

        printf("Enter String : \n");
        gets(s1);

        printf("Replace Word : \n");
        gets(s2);
```

```
printf("Replace with the word : \n");
gets(s3);

l1=strlen(s1);
l2=strlen(s2);
l3=strlen(s3);



for(i=0;s1[i];i++)
{
if(s1[i] == s3[0])
{
        for(j=1;s3[j];j++)
        if(s3[j]!=s1[i+j])
                break;
        if(s3[j]=='\0')
        {
                l1=l1+l2-l3;
                for(c=l3;c>0;c--)
                        for(k=i;s1[k];k++)
                                s1[k]=s1[k+1];


                for(c=l2;c>0;c--)
                        for(k=l1;k>=i;k--)
```

```
                    s1[k+1]=s1[k];


                for(k=0;k<l2;k++)
                    s1[i+k]=s2[k];
            }



        }
        }
        printf("%s\n",s1);
}
```



22) Write a program to check given strings are anagram or not.

Note : Both strings are anagram, if both contains same elements, same no.of times in any order. (Can have extra special characters & digits also)

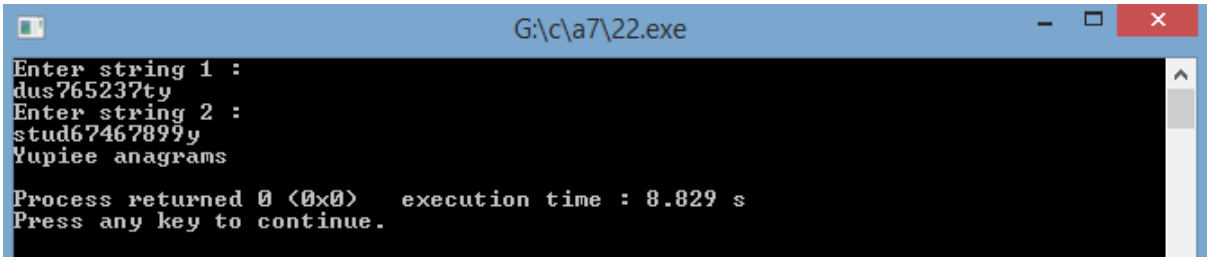
Ex: "Osama bin laden" , "Old man in a base" both are anagrams

"study", "**dus%@ty123**" both are anagrams.

Here after removing special characters and digits ----> **" dusty "**.

```
#include<stdio.h>
main()
{
        char s1[30],s2[30],ch = 'a';
        int i,j,k=0,m=0,n=0,t;

        printf("Enter string 1 : \n");
        scanf("%s",s1);

        printf("Enter string 2 : \n");
        scanf("%s",s2);

        //for(i=0;s1[i];i++);
        //lena=i;

        while(ch <= 'z')
        {
```

```
        m=0;
        n=0;
        for(i=0;s1[i];i++)
        {
                if(s1[i] == ch)
                m++;
        }
        for(j=0;s2[j];j++)
        {
                if(s2[j] == ch)
                n++;
        }
                if(m!=n)
                break;
                //else
                //k++;
        ch++;
        }
if(m==n)
printf("Yupiee anagrams\n");
else
printf("Nope...\n");
}
```


G:\c\a7\22.exe
Enter string 1 :
dus765237ty
Enter string 2 :
stud67467899y
Yupiee anagrams
Process returned 0 (0x0)   execution time : 8.829 s
Press any key to continue.

23) Write a program for Decryption of a given Encrypted string line with respect to given key number.

The letter at position of the key and a multiple of key is interchanged with the next letter. Spaces and special characters are to be ignored. If the letter is the last one in the array, then no interchange is required.

Design a function called Decryptor to receive the Encrypted data from the main function and decrypt the data.

4 8 12 16 20 24 28 32 36

Ex: Input String : **"Expcet Porblmes adn eat thef mor rbeafkast".**

If Key : 4 then, 4 multiples ---> 4,8,12,16,20,24,28,32,36 these letters has to interchange with next Characters.

Output String : **"Expect Problems and eat them for breakfast".**

Try this and Know it.

Input String : "Our rgeaetst ewakenss iles ni giivng pu. thm eosc teratin awy ts ouceed si alwyas tt ory ujst noe mroe tmie".

Key : 4

```
#include<stdio.h>


main()
{
        char s[120],ch;
        int y,i,j,k,l,t;


        printf("Enter String : \n");
```

```
gets(s);

printf("String Index : \n");
scanf("%d",&k);
//t=0;
y = k;

for(i=0;s[i];i++)
{
j=i;
if(s[i]!=32)
if(j == k)
{
        ch = s[i];
        s[i]=s[i-1];
        s[i-1]=ch;
        k = k + y;
}
if(s[i]==32)
{
j=j+1;
k=k+1;
if(j == k)
{
```

```
            ch = s[i];
            s[i]=s[i-1];
            s[i-1]=ch;
            k = k + y;
        }


        }


        }
        printf("%s\n",s);
}
```