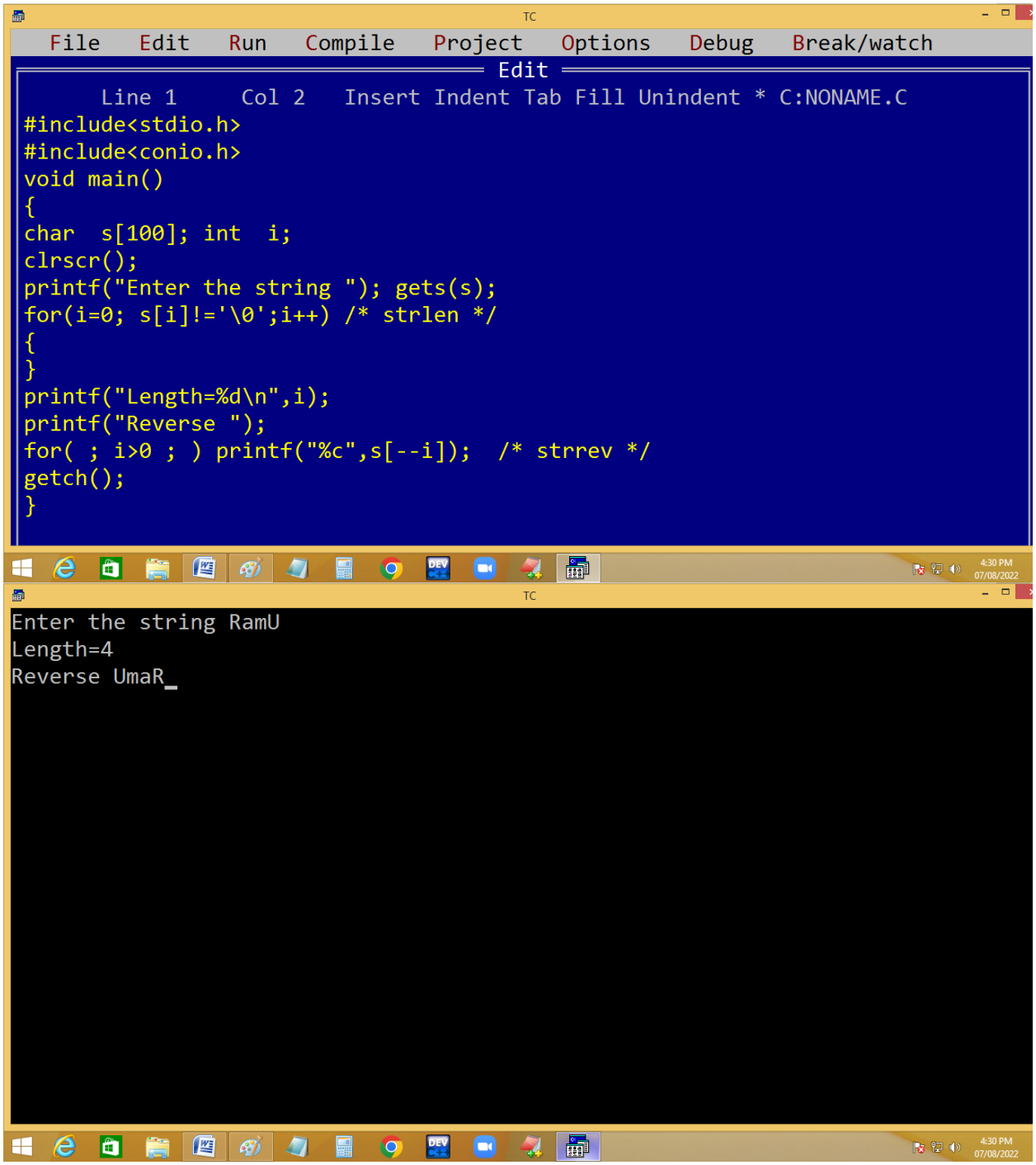
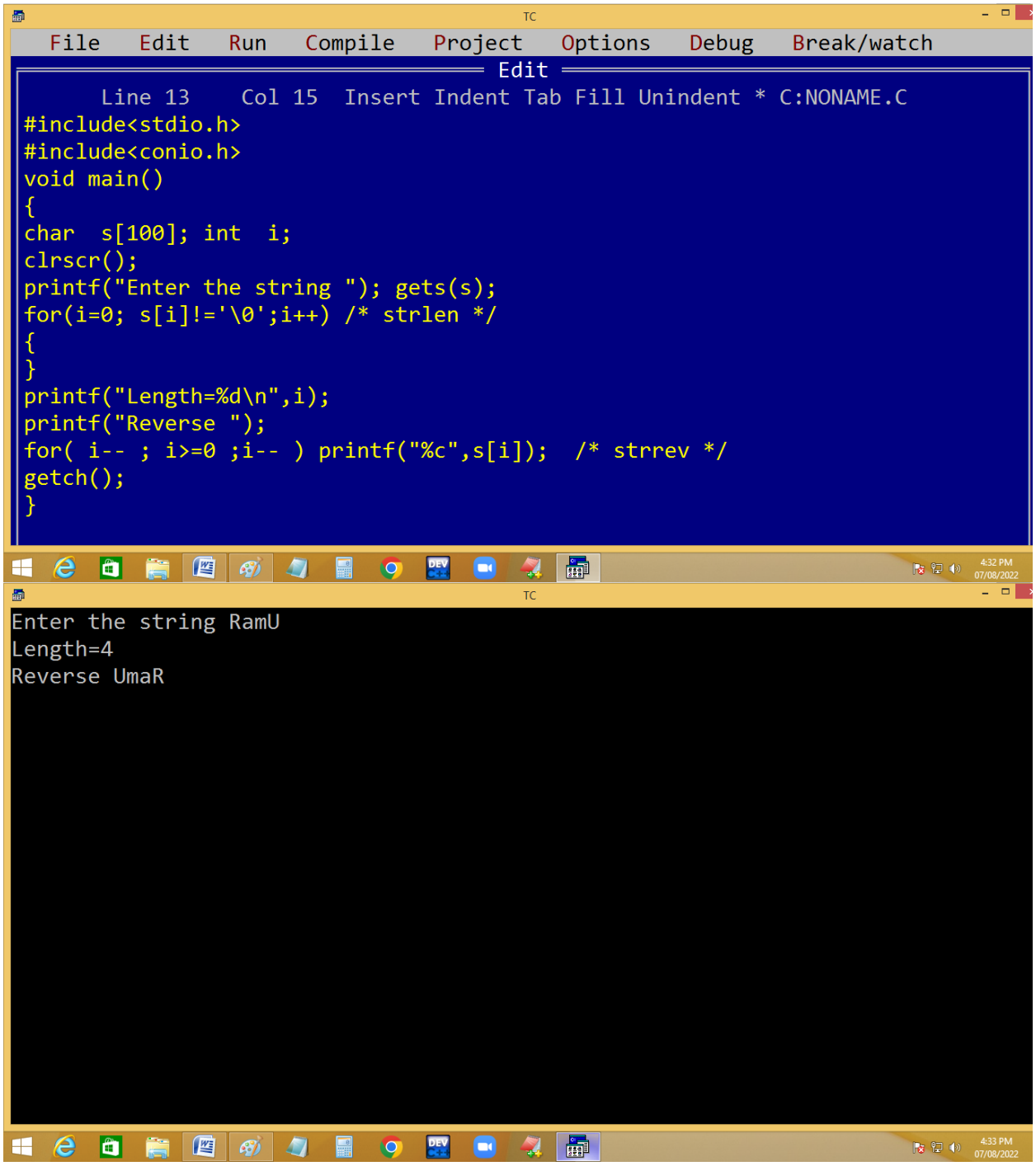
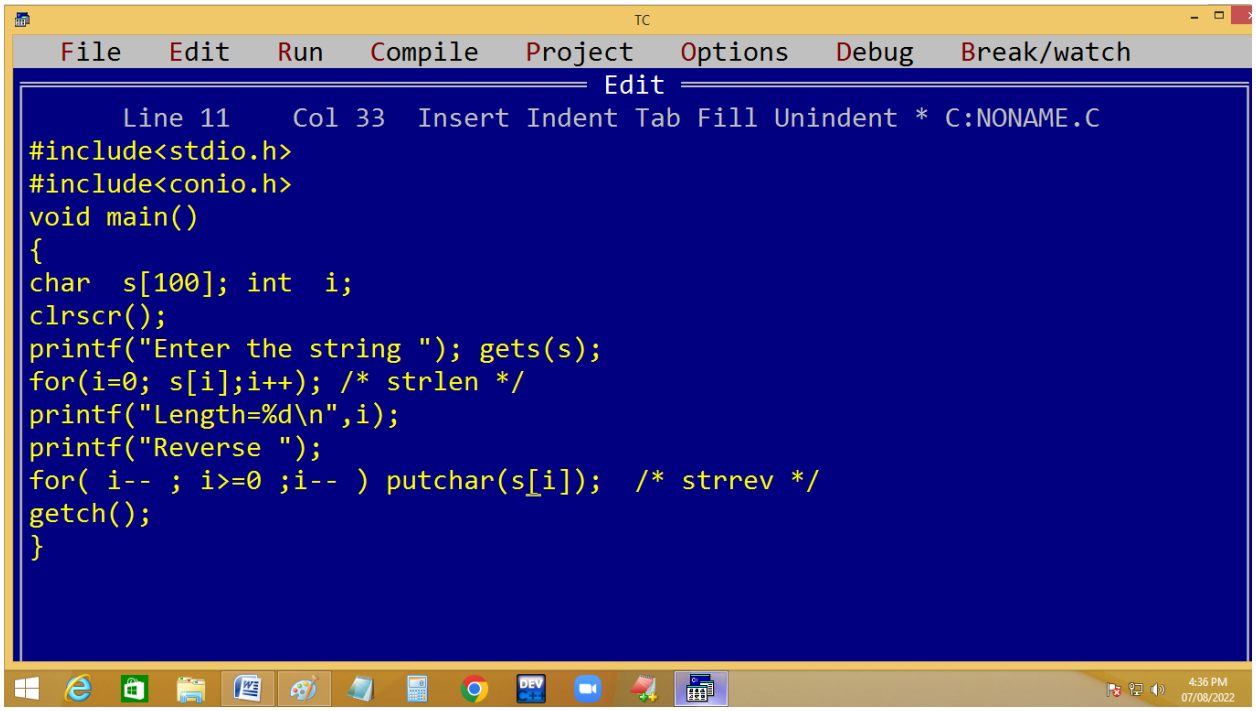
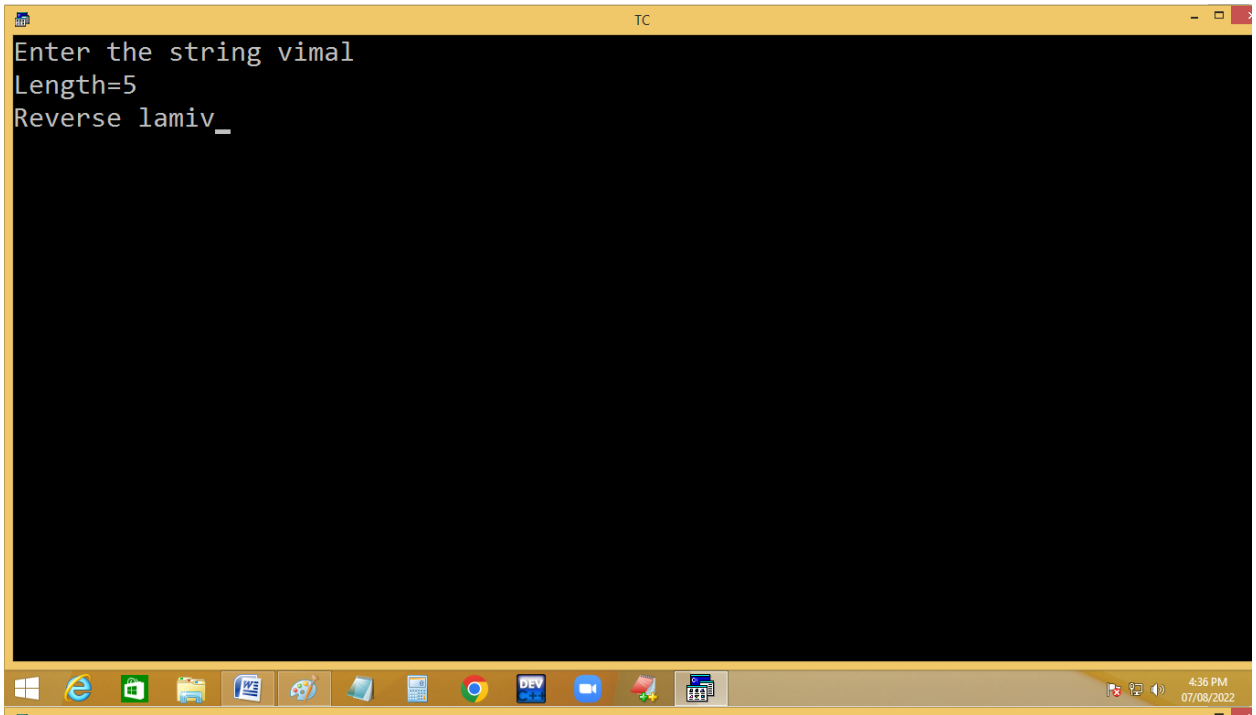
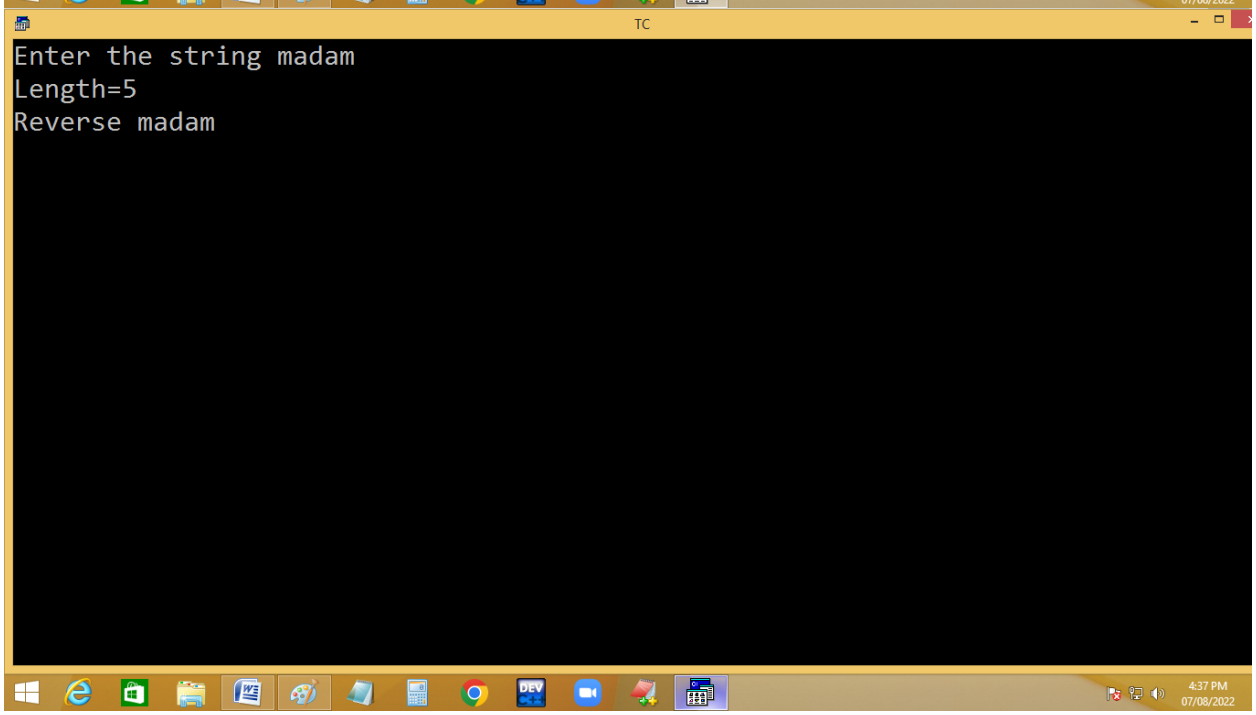
Eg. finding string length and reverse string using a user defined program.

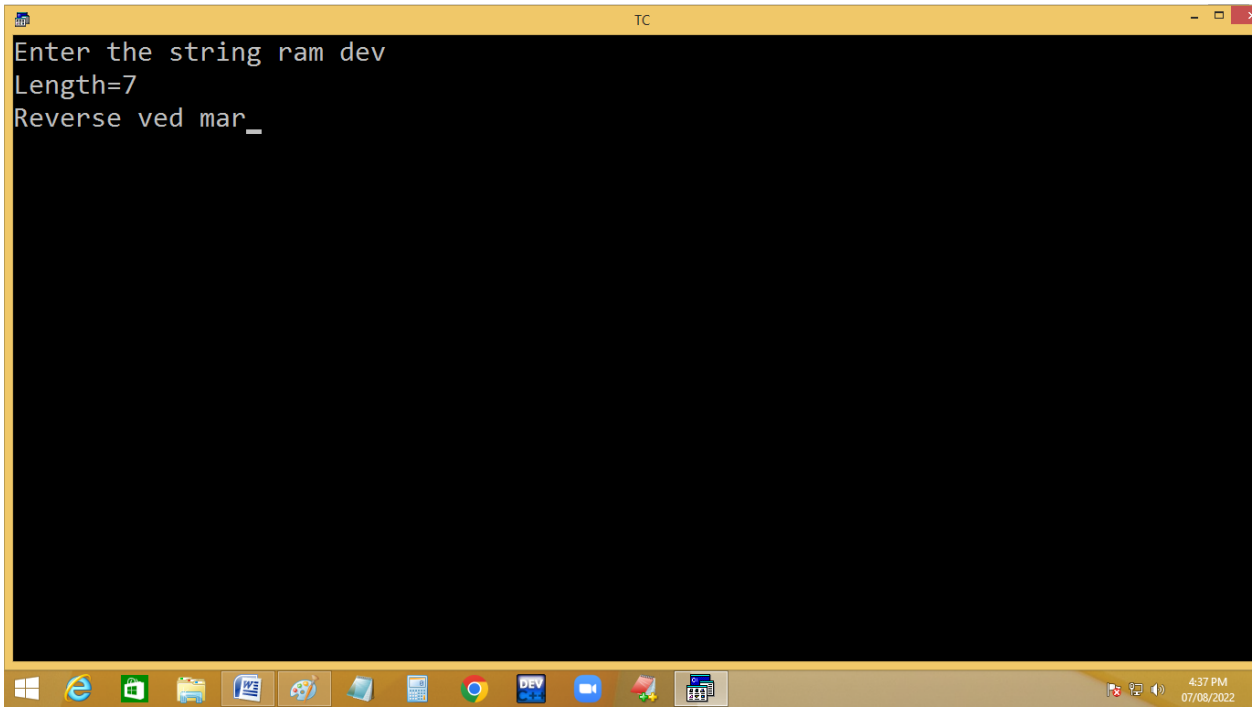



TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 13 Col 15 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
char s[100]; int i;
clrscr();
printf("Enter the string "); gets(s);
for(i=0; s[i]!='\0';i++) /* strlen */
{
}
printf("Length=%d\n",i);
printf("Reverse ");
for(i-- ; i>=0 ;i--) printf("%c",s[i]); /* strrev */
getch();
}
4:32 PM
07/08/2022
TC
Enter the string RamU
Length=4
Reverse UmaR
4:33 PM
07/08/2022

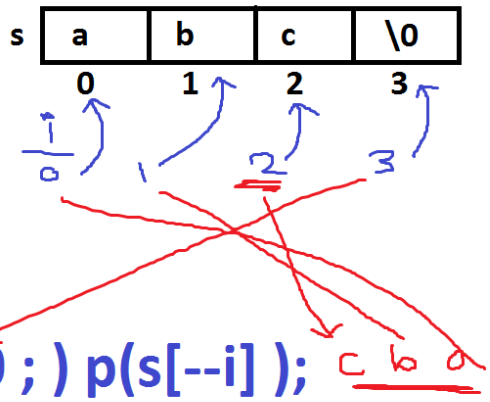

TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 11 Col 33 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
char s[100]; int i;
clrscr();
printf("Enter the string "); gets(s);
for(i=0; s[i];i++); /* strlen */
printf("Length=%d\n",i);
printf("Reverse ");
for(i-- ; i>=0 ;i--) putchar(s[i]); /* strrev */
getch();
}
4:36 PM
07/08/2022


TC
Enter the string vimal
Length=5
Reverse lamiv
4:36 PM
07/08/2022


TC
Enter the string madam
Length=5
Reverse madam
4:37 PM
07/08/2022



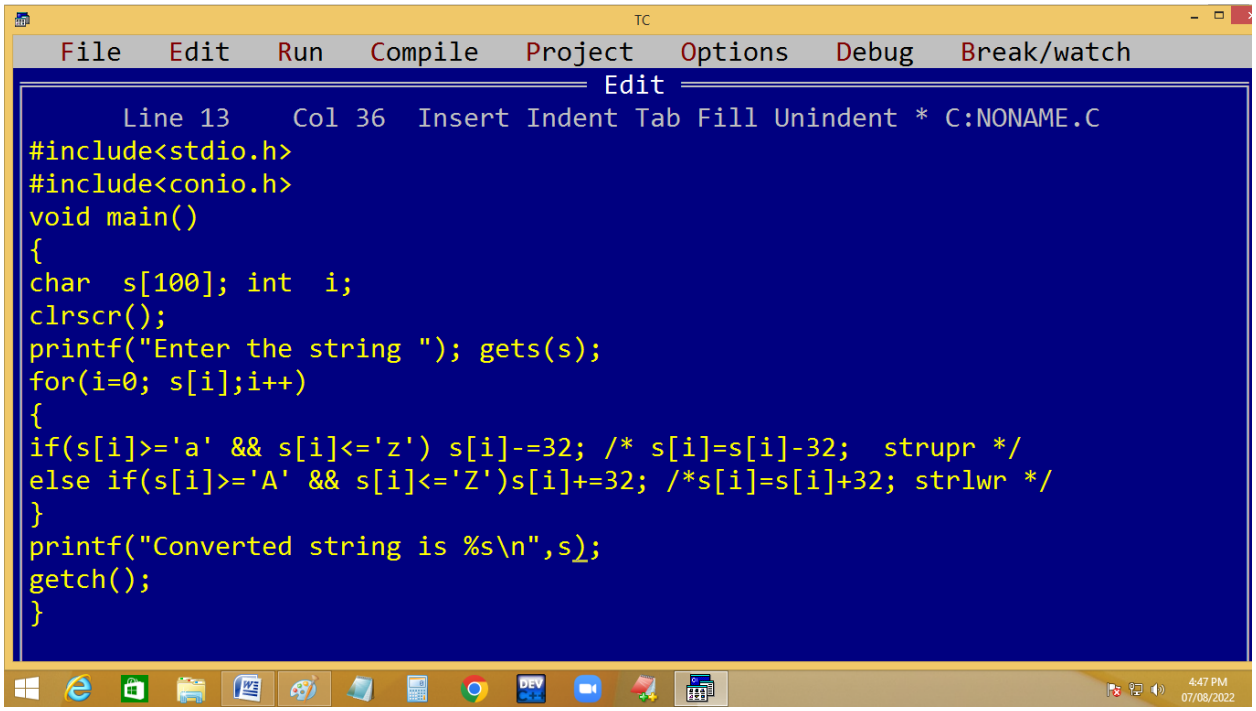

```
for(i=0; s[i]!='\0';i++)
{
}
p("Length=%d", i );  3
```

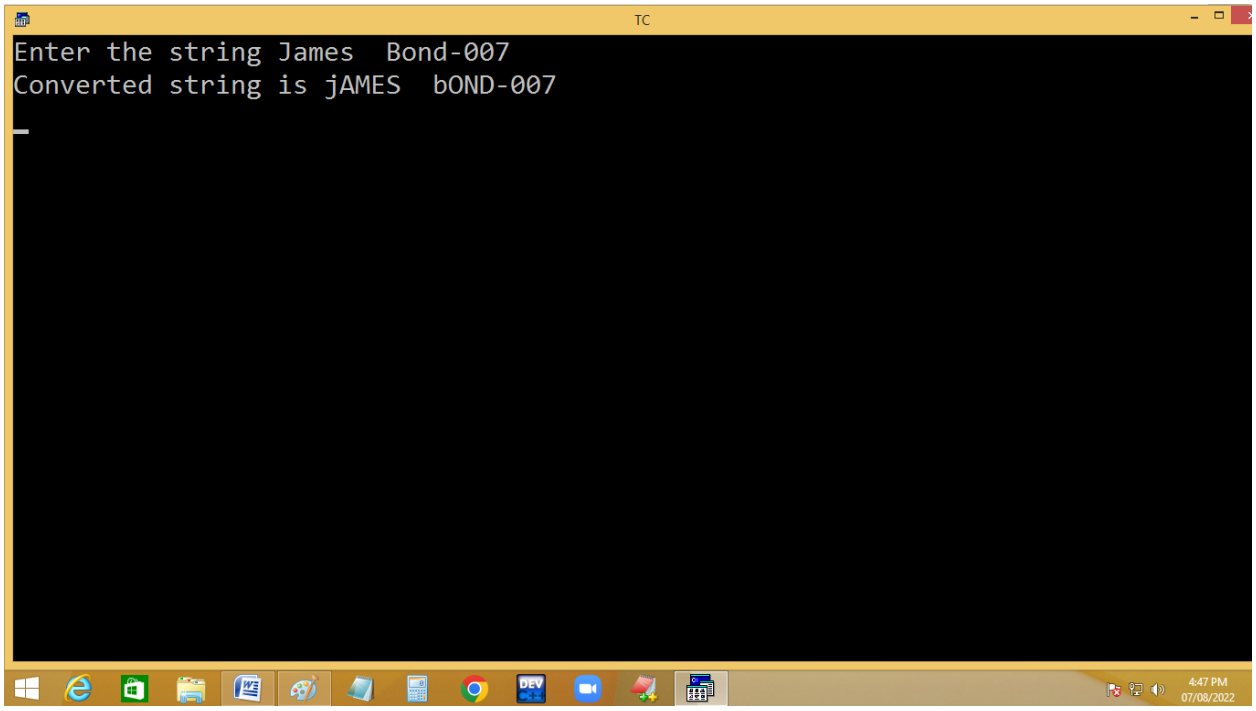


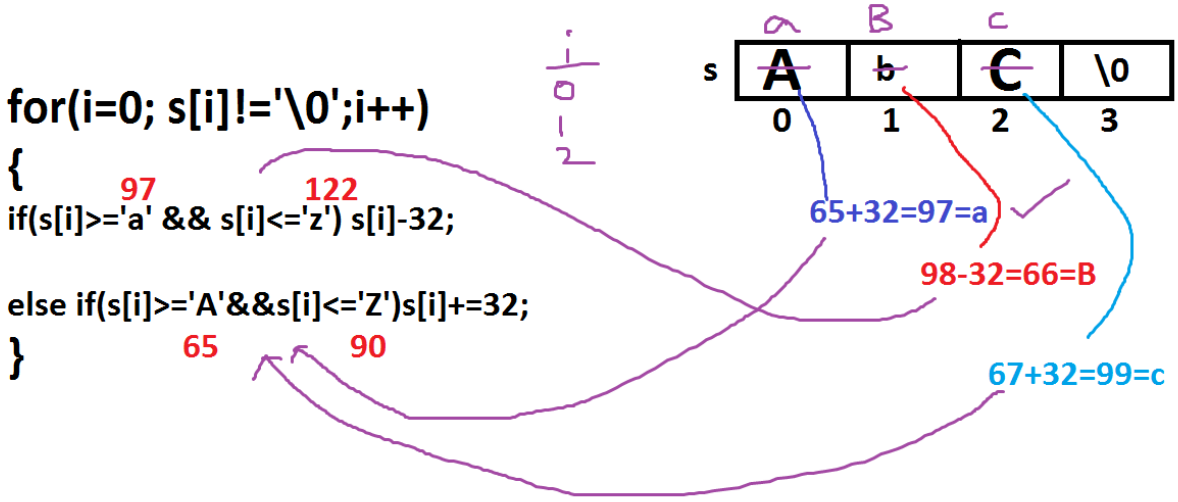

```
p("Reverse is "); for( ; i>0 ; ) p(s[--i] );
```

c b a

Eg. lower to upper / upper to lower:


TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 13 Col 36 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
char s[100]; int i;
clrscr();
printf("Enter the string "); gets(s);
for(i=0; s[i];i++)
{
if(s[i]>='a' && s[i]<='z') s[i]-=32; /* s[i]=s[i]-32; strupr */
else if(s[i]>='A' && s[i]<='Z')s[i]+=32; /*s[i]=s[i]+32; strlwr */
}
printf("Converted string is %s\n",s);
getch();
}
4:47 PM
07/08/2022



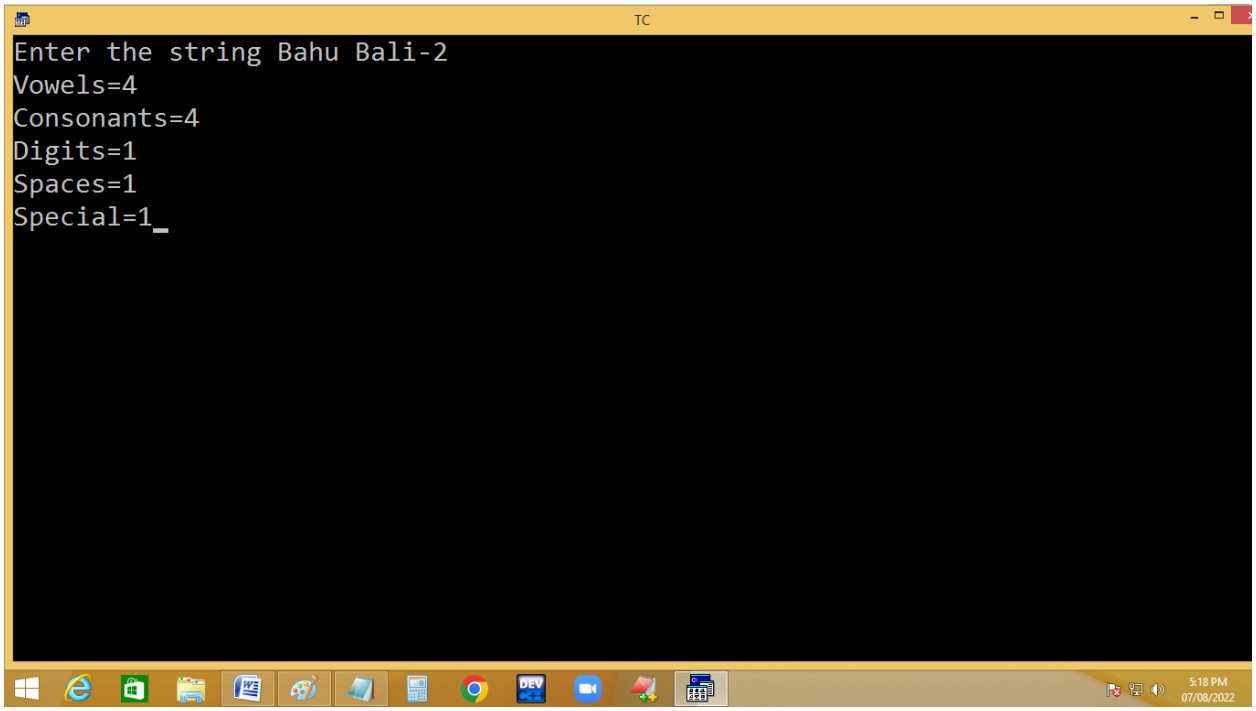


Eg. Finding the no of vowels, consonants, digits, spaces and special characters, in given string.

```
#include<stdio.h>

#include<conio.h>
```

```
#include<ctype.h>
void main()
{
char  s[100]; int  i, v,c,d,spa,spe;
clrscr();
v=c=d=spa=spe=0;
printf("Enter the string "); gets(s);
for(i=0; s[i];i++)
{
s[i]=tolower(s[i]);
if(s[i]>='0'&&s[i]<='9')d++;
else if(s[i]==' ')spa++;
else if(s[i]>='a' &&s[i]<='z')
{
```

```
if(s[i]=='a'||s[i]=='e'||s[i]=='i'||s[i]=='o'||s[i]=='u')
v++;
 else c++;
}
 else  spe++;
 }

printf("Vowels=%d\nConsonants=%d\nDigits=%d\
nSpaces=%d\nSpecial=%d",
 v,c,d,spa,spe);
getch();
}
```

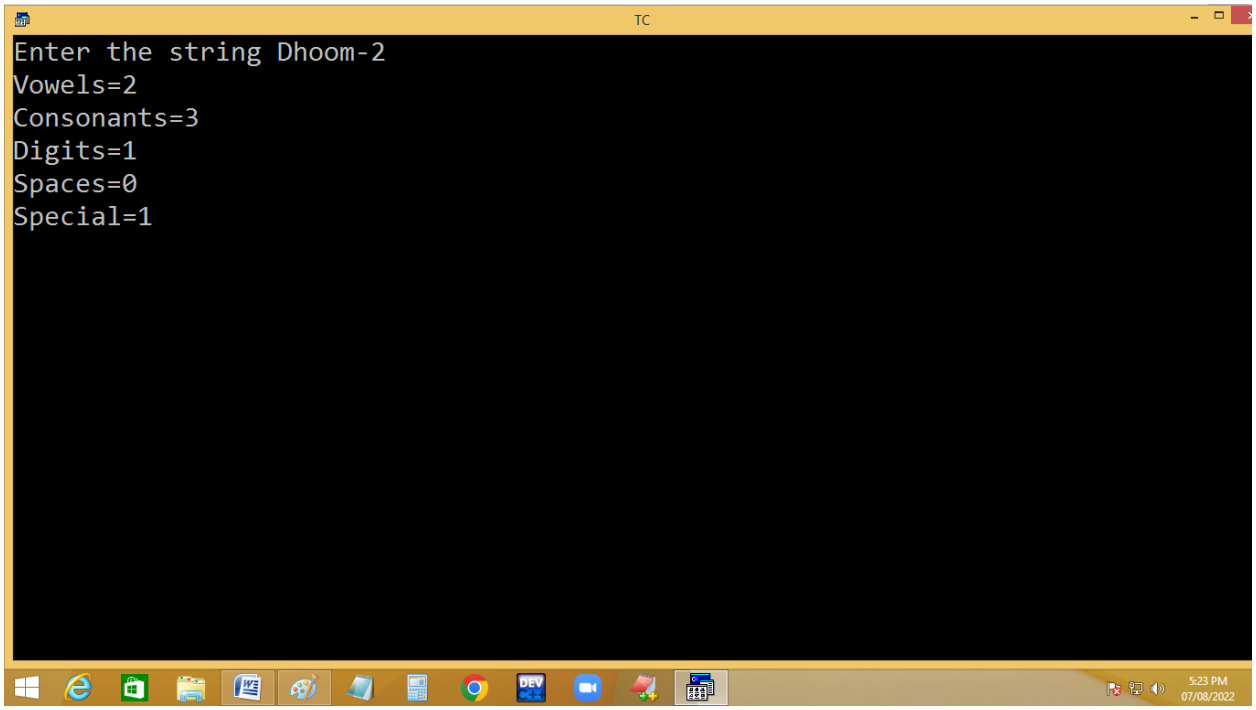


Without using tolower():

```
#include<stdio.h>

#include<conio.h>

void main()

{

char  s[100]; int  i, v,c,d,spa,spe;

clrscr();

v=c=d=spa=spe=0;

printf("Enter the string "); gets(s);
```

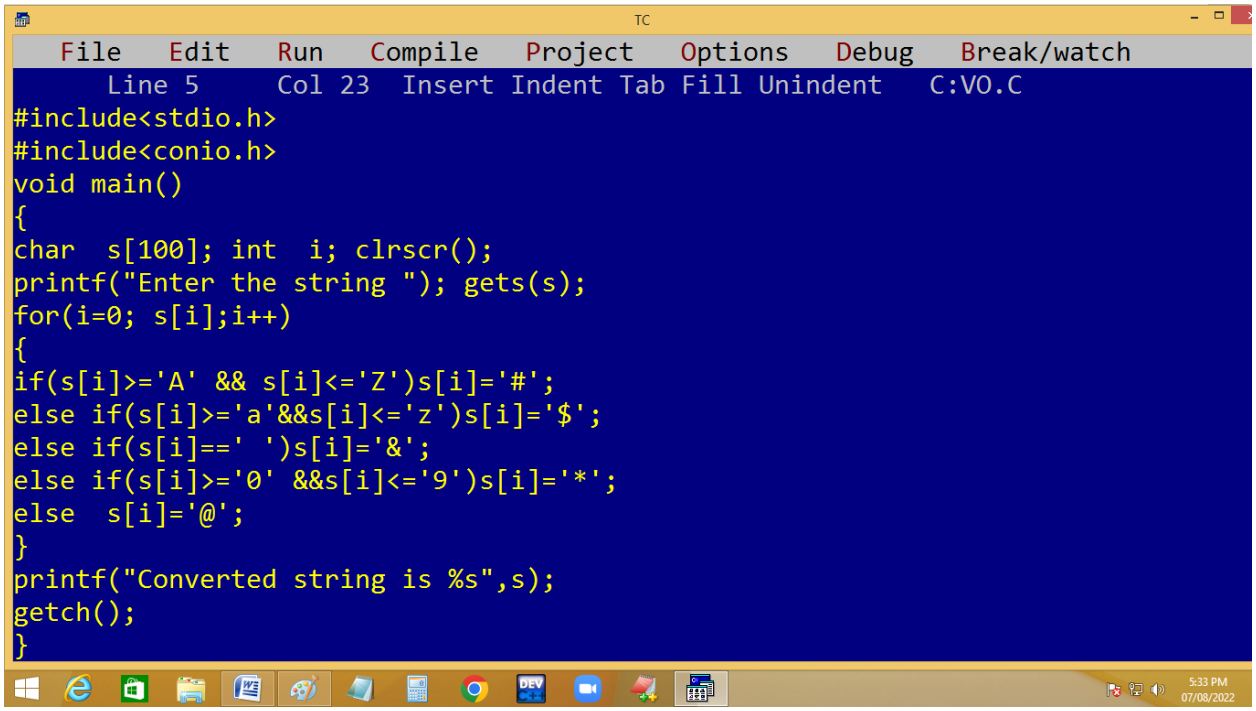
```
for(i=0; s[i];i++)
{
if(s[i]>='A' && s[i]<='Z')s[i]+=32;
if(s[i]>='0'&&s[i]<='9')d++;
else if(s[i]==' ')spa++;
else if(s[i]>='a' &&s[i]<='z')
{

if(s[i]=='a'||s[i]=='e'||s[i]=='i'||s[i]=='o'||s[i]=='u')
v++;
 else c++;
}
 else  spe++;
 }

printf("Vowels=%d\nConsonants=%d\nDigits=%d\
nSpaces=%d\nSpecial=%d",
```

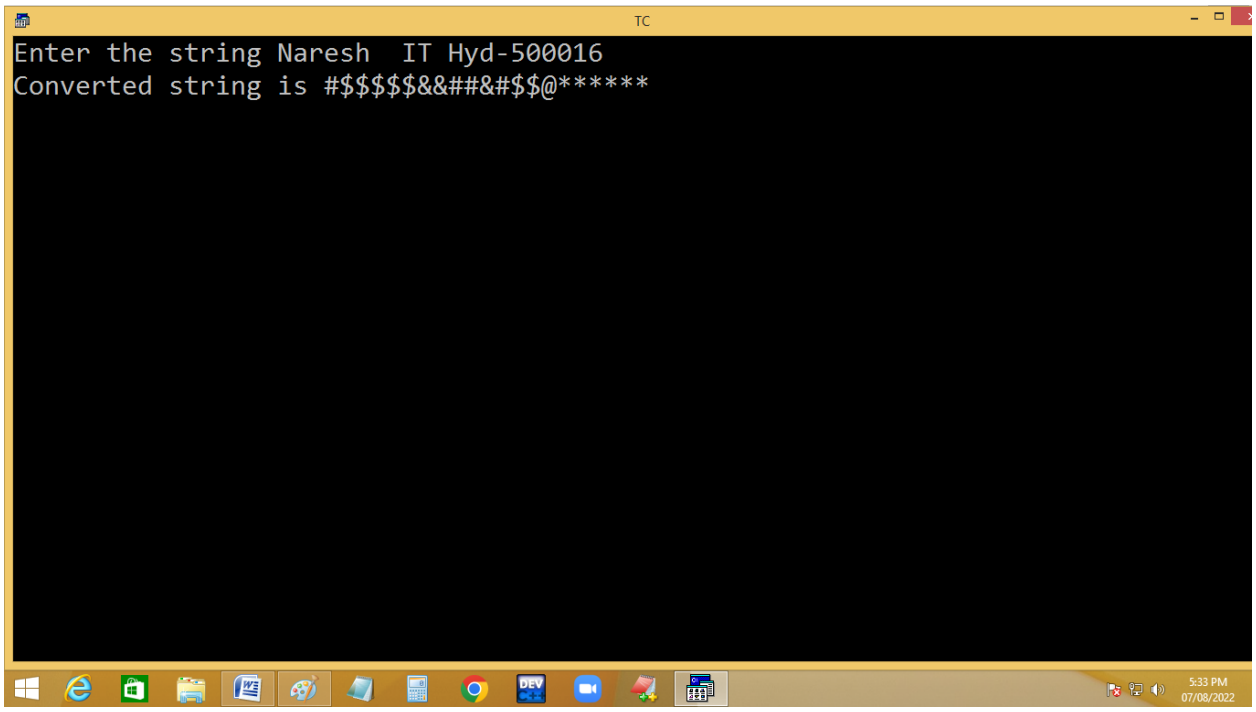
```
 v,c,d,spa,spe);
getch();
}
```



Eg. encrypting data.

Read a string and replaceall the lower case char / upper case / digits /spaces / special char with $ / # / * / & / @


TC
File Edit Run Compile Project Options Debug Break/watch
Line 5 Col 23 Insert Indent Tab Fill Unindent C:VO.C
#include<stdio.h>
#include<conio.h>
void main()
{
char s[100]; int i; clrscr();
printf("Enter the string "); gets(s);
for(i=0; s[i];i++)
{
if(s[i]>='A' && s[i]<='Z')s[i]='#';
else if(s[i]>='a'&&s[i]<='z')s[i]='$';
else if(s[i]==' ')s[i]='&';
else if(s[i]>='0' &&s[i]<='9')s[i]='*';
else s[i]='@';
}
printf("Converted string is %s",s);
getch();
}

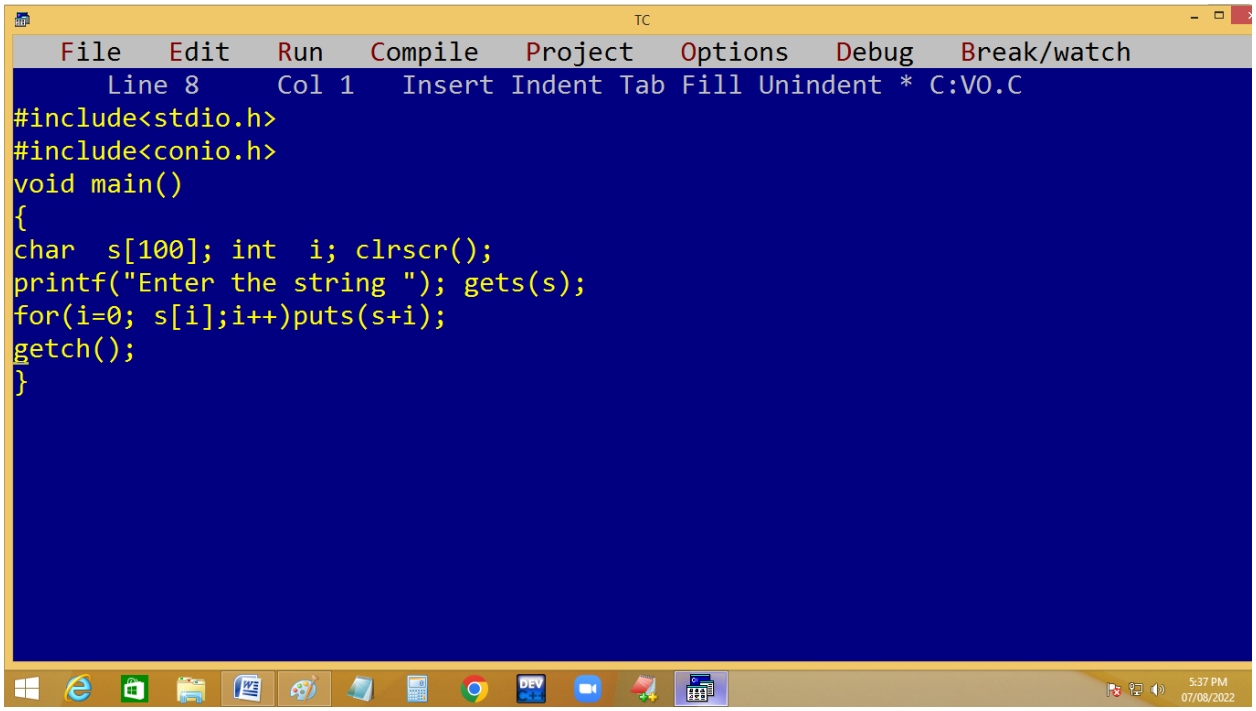

TC
Enter the string Naresh IT Hyd-500016
Converted string is #$$$$$&&##&#$$@******

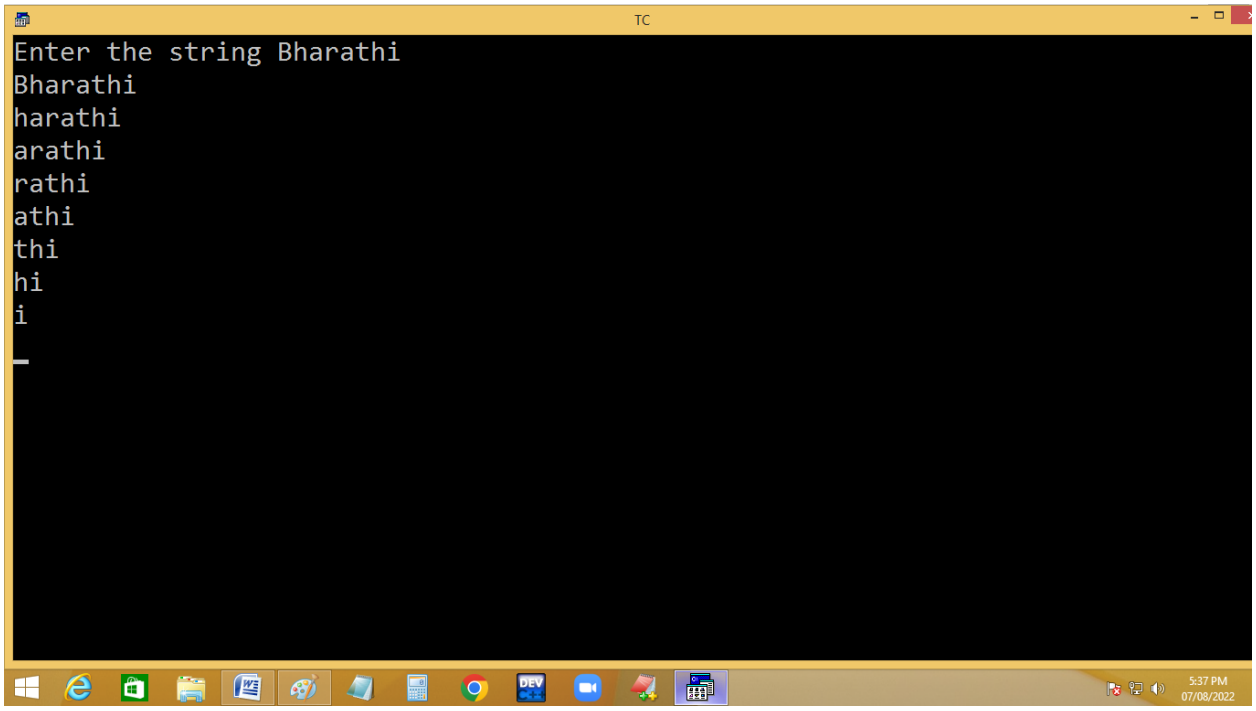
Eg. printing string as follows → Abc

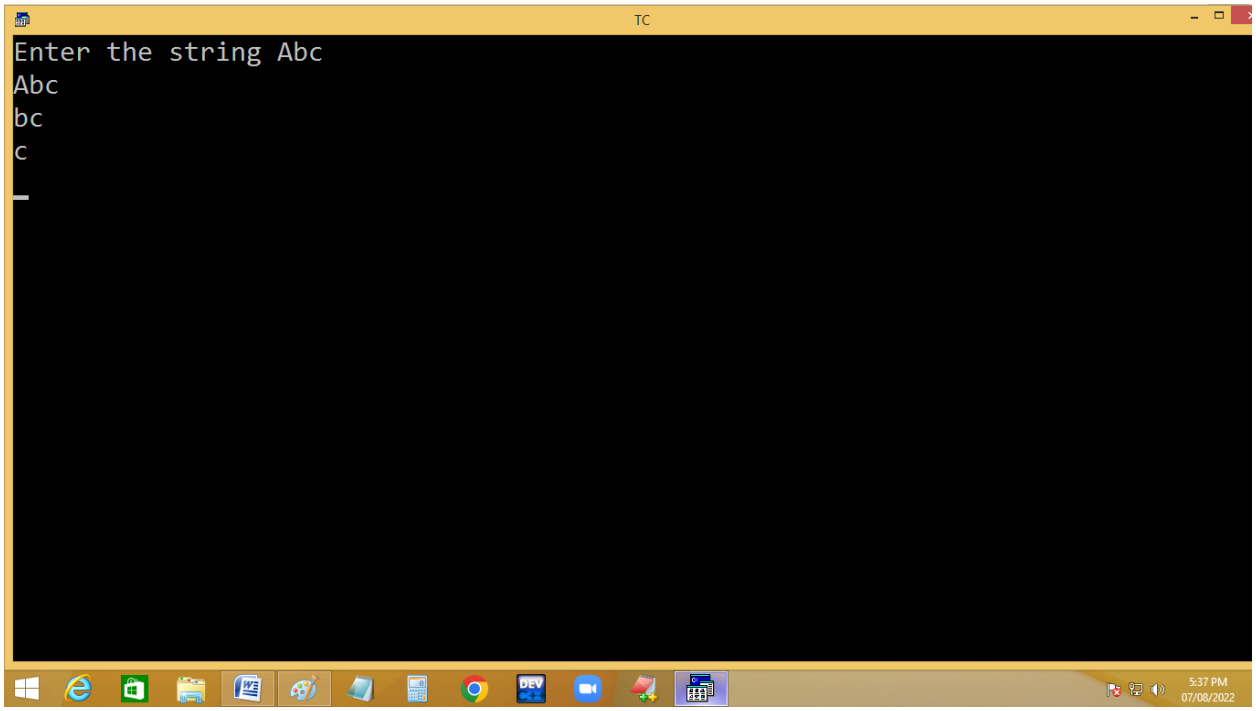
Abc

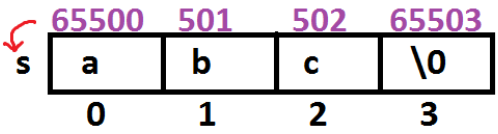
bc

c


TC
File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 1 Insert Indent Tab Fill Unindent * C:VO.C
#include<stdio.h>
#include<conio.h>
void main()
{
char s[100]; int i; clrscr();
printf("Enter the string "); gets(s);
for(i=0; s[i];i++)puts(s+i);
getch();
}

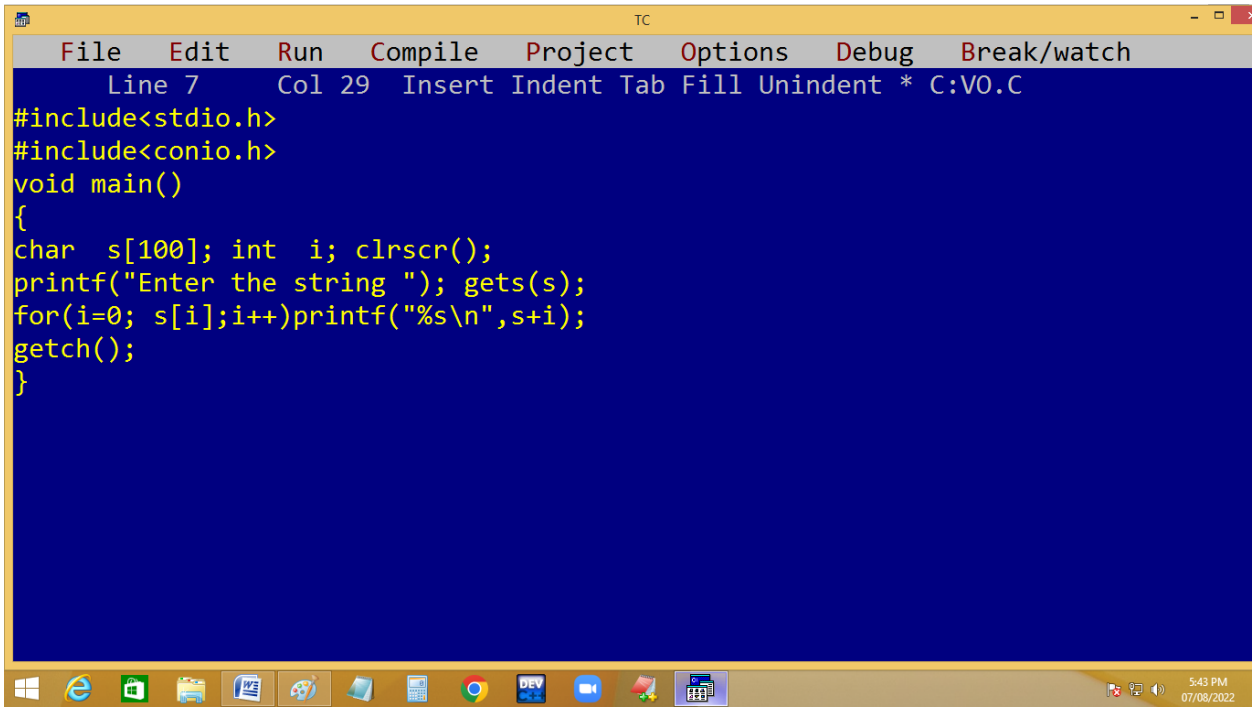

TC
Enter the string Bharathi
Bharathi
harathi
arathi
rathi
athi
thi
hi
i

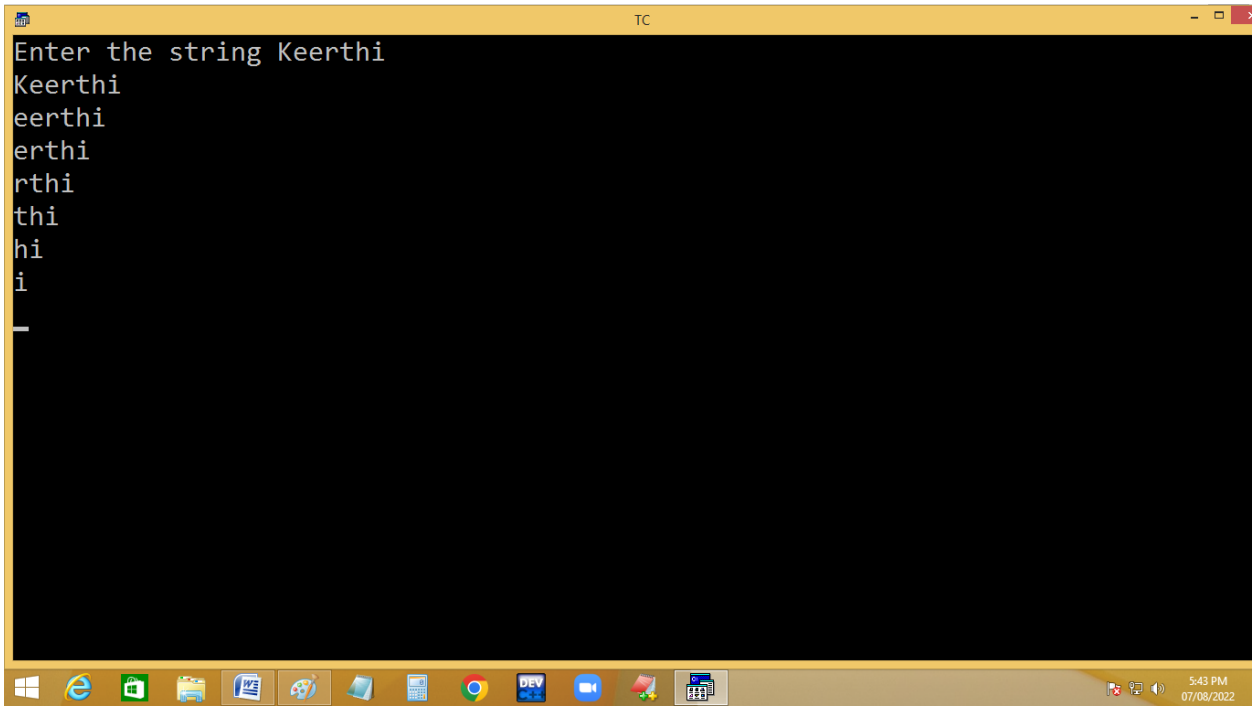


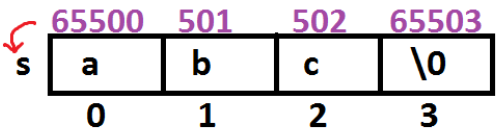



```
for(i=0; s[i]!='\0';i++)puts( s + i);
```

65500+0*1=65500 to \0 ==> abc
65500+1*1=65501 to \0 ==> bc
65500+2*1=65502 to \0 ==> c


TC
File Edit Run Compile Project Options Debug Break/watch
Line 7 Col 29 Insert Indent Tab Fill Unindent * C:VO.C
#include<stdio.h>
#include<conio.h>
void main()
{
char s[100]; int i; clrscr();
printf("Enter the string "); gets(s);
for(i=0; s[i];i++)printf("%s\n",s+i);
getch();
}


TC
Enter the string Keerthi
Keerthi
eerthi
erthi
rthi
thi
hi
i




```
for(i=0; s[i]!='\0';i++)puts( s + i);
```

65500+0*1=65500 to \0 ==> abc
65500+1*1=65501 to \0 ==> bc
65500+2*1=65502 to \0 ==> c

Home work:

I miss you jaanu ➔ 4

I am proud to be Indian ➔ 6