Direct initialization of a string:

```c
#include<stdio.h>
#include<conio.h>
void main()
{
char  s[100]="Naresh\tIT\nAmeerpet\0Hyd";
clrscr();
printf("%s\n",s);
puts(s);
printf(s);
getch();
}
```

```
Naresh  IT
Ameerpet
Naresh  IT
Ameerpet
Naresh  IT
Ameerpet
```
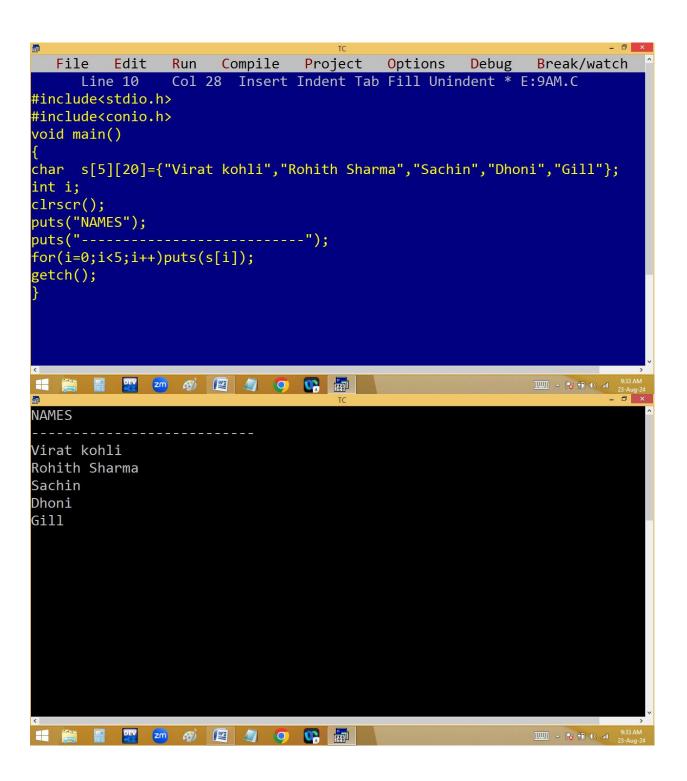
File   Edit   Run   Compile   Project   Options   Debug   Break/watch
      Line 5   Col 9   Insert Indent Tab Fill Unindent * E:9AM.C

```c
#include<stdio.h>
#include<conio.h>
void main()
{
char  s[]="Naresh\tIT\nAmeerpet\0Hyd";
clrscr();
printf("%s\n",s);
puts(s);
printf(s);
getch();
}
```

```
Naresh  IT
Ameerpet
Naresh  IT
Ameerpet
Naresh  IT
Ameerpet_
```

File   Edit   Run   Compile   Project   Options   Debug   Break/watch

Error: Size of structure or array not known in function main

```
#include<stdio.h>
#include<conio.h>
void main()
{
char  s[];
s="Naresh\tIT\nAmeerpet\0Hyd";
clrscr();
printf("%s\n",s);
puts(s);
printf(s);
getch();
}
```

File   Edit   Run   Compile   Project   Options   Debug   Break/watch

Error: Lvalue required in function main

```
#include<stdio.h>
#include<conio.h>
void main()
{
char  s[100];
s="Naresh\tIT\nAmeerpet\0Hyd";
clrscr();
printf("%s\n",s);
puts(s);
printf(s);
getch();
}
```
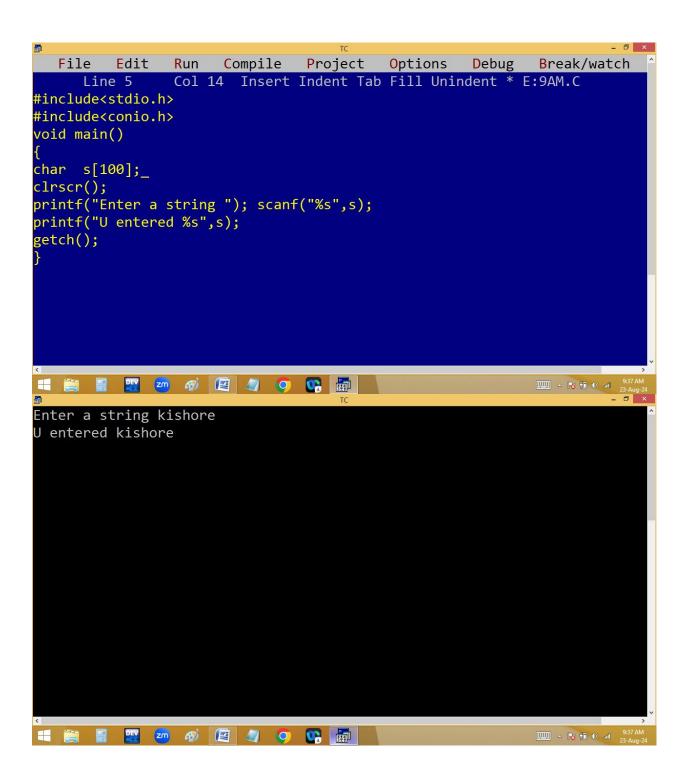
```
File    Edit    Run    Compile    Project    Options    Debug    Break/watch
        Line 11    Col 10   Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
char  s1[2]="K",s2[]="K", s3[2]={'K'},s4[]={'K','\0'}, s5[]={'K'};
clrscr();
puts(s1);
puts(s2);
puts(s3);
puts(s4);
puts(s5);_
getch();
}
```

```
K
K
K
K
Kc∞ ↔☺☺
```
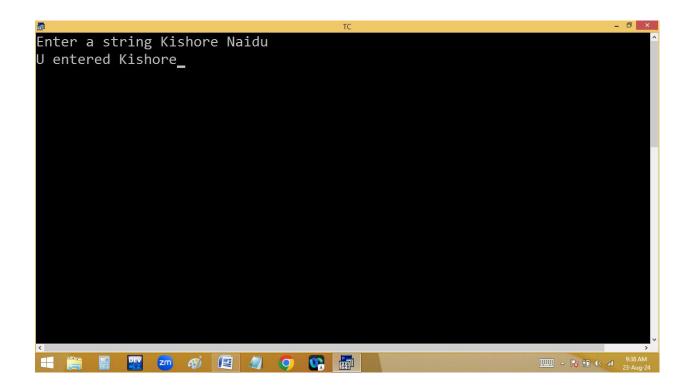
Storing of multiple strings:
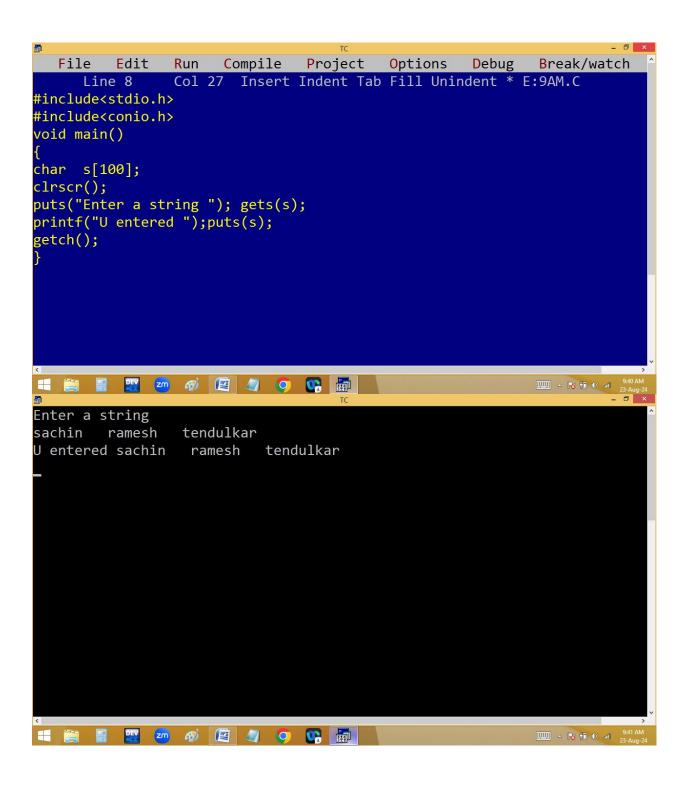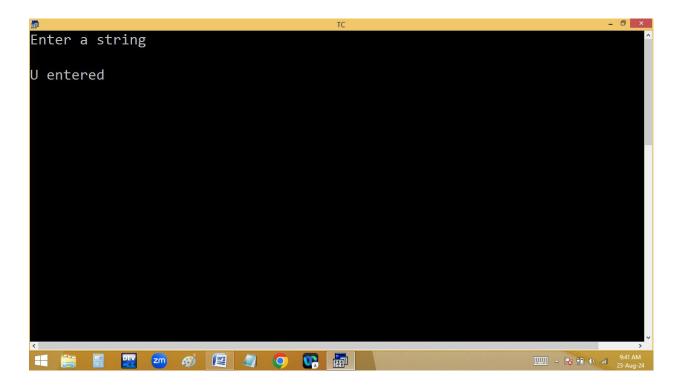
```c
#include<stdio.h>
#include<conio.h>
void main()
{
char  s[5][20]={"Virat kohli","Rohith Sharma","Sachin","Dhoni","Gill"};
int i;
clrscr();
puts("NAMES");
puts("-------------------------");
for(i=0;i<5;i++)puts(s[i]);
getch();
}
```

9:33 AM
23-Aug-24

```
NAMES
---------------------------
Virat kohli
Rohith Sharma
Sachin
Dhoni
Gill
```

9:33 AM
23-Aug-24

```c
#include<stdio.h>
#include<conio.h>
void main()
{
char   s[5][20]={"Virat kohli","Rohith Sharma","Sachin","Dhoni","Dravid"};
int i;
clrscr();
puts("NAMES");
puts("---------------------------");
for(i=0;i<5;i++)printf("%c",s[i][i]);
getch();
}
```

```
NAMES
---------------------------
Vocni
```

Reading and printing a string at runtime:

```c
#include<stdio.h>
#include<conio.h>
void main()
{
char  s[100];_
clrscr();
printf("Enter a string "); scanf("%s",s);
printf("U entered %s",s);
getch();
}
```

```
Enter a string kishore
U entered kishore
```

```
Enter a string Kishore Naidu
U entered Kishore
```

```
#include<stdio.h>
#include<conio.h>
void main()
{
char  s[100];
clrscr();
puts("Enter a string "); gets(s);
printf("U entered ");puts(s);
getch();
}
```

Enter a string
sachin   ramesh   tendulkar
U entered sachin   ramesh   tendulkar

```
Enter a string

U entered
```

Magic / Scan set characters:

```c
#include<stdio.h>
#include<conio.h>
void main()
{
char  s[100];
clrscr();
printf("Enter a string "); scanf("%[^\n]",s);
printf("U entered %s",s);
getch();
}
```

TC

```
Enter a string virat   kohli
U entered virat   kohli_
```
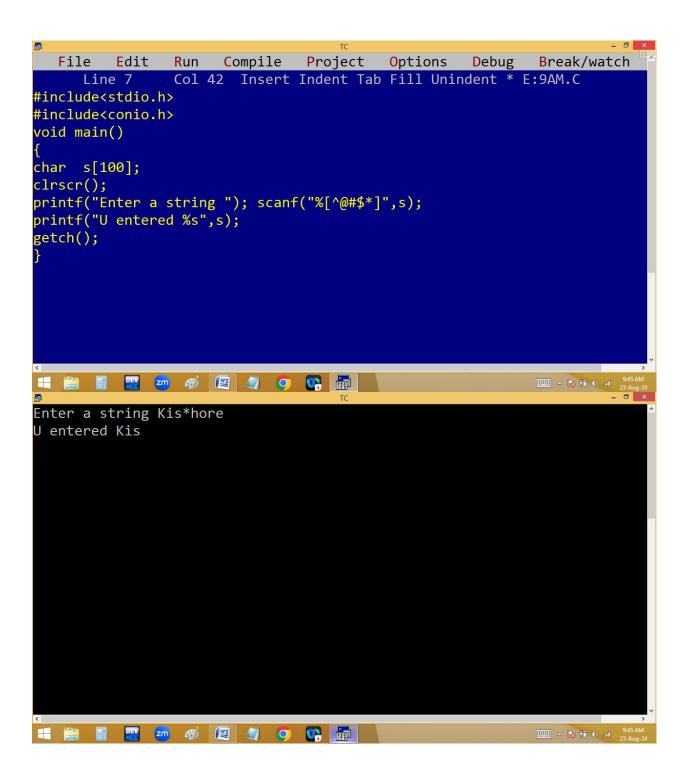
File   Edit   Run   Compile   Project   Options   Debug   Break/watch

```c
#include<stdio.h>
#include<conio.h>
void main()
{
char  s[100];
clrscr();
printf("Enter a string "); scanf("%[^@#$*]",s);
printf("U entered %s",s);
getch();
}
```

```
Enter a string Kis*hore
U entered Kis
```

```
TC

Enter a string Roh#ith
U entered Roh_
```

```
TC

Enter a string naresh@IT
U entered naresh
```

```c
#include<stdio.h>
#include<conio.h>
void main()
{
char  s[100];
clrscr();
printf("Enter a string "); scanf("%[^0-9]",s);
printf("U entered %s",s);
getch();
}
```

```
Enter a string hyd500016
U entered hyd
```

```c
#include<stdio.h>
#include<conio.h>
void main()
{
char  s[100];
clrscr();
printf("Enter a string "); scanf("%[^a-z 0-9]",s);
printf("U entered %s",s);
getch();
}
```

TC

```
Enter a string bahu bali - 2
U entered
```

```
Enter a string James
U entered J
```

```
Enter a string DIL WALE
U entered DIL
```

File   Edit   Run   Compile   Project   Options   Debug   Break/watch

Line 7   Col 41   Insert Indent Tab Fill Unindent * E:9AM.C

```c
#include<stdio.h>
#include<conio.h>
void main()
{
char  s[100];
clrscr();
printf("Enter a string "); scanf("%[a-z 0-9]",s);
printf("U entered %s",s);
getch();
}
```

```
TC                                                                    _ □ ×
Enter a string HYD@1
U entered
```

```
TC                                                                    _ □ ×
Enter a string hyd-16
U entered hyd_
```
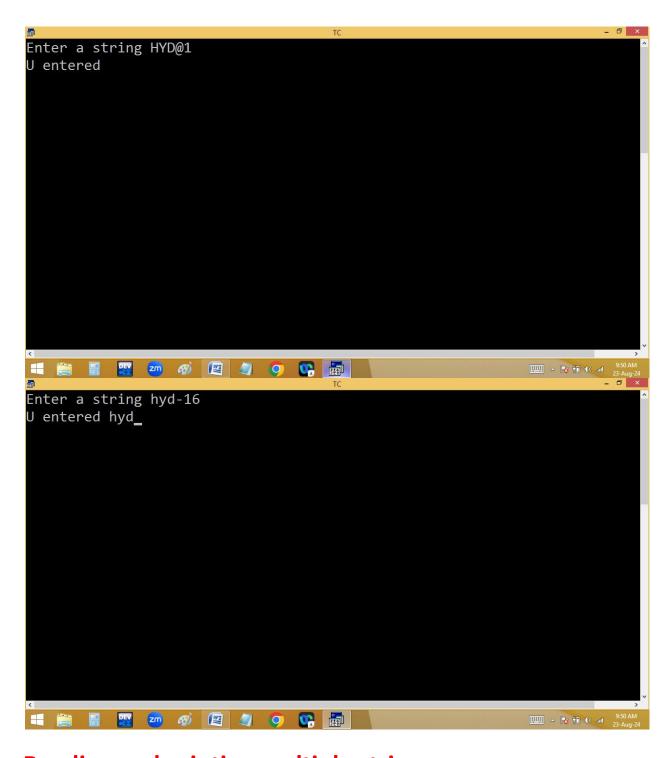
Reading and printing multiple strings:

```c
#include<stdio.h>
#include<conio.h>
void main()
{
char  s[10][100]; int i,n;
clrscr();
puts("Enter no of strings 1-10 "); scanf("%d",&n);
printf("Enter %d strings\n",n); flushall();
for(i=0;i<n;i++)gets(s[i]);
puts("Strings");
puts("--------------------------------");
for(i=0;i<n;i++)puts(s[i]);
getch();
}
```

TC

```
Enter no of strings 1-10
4
Enter 4 strings
jhanvi
kiara
rashmika
samantha
Strings
--------------------------------
jhanvi
kiara
rashmika
samantha
```
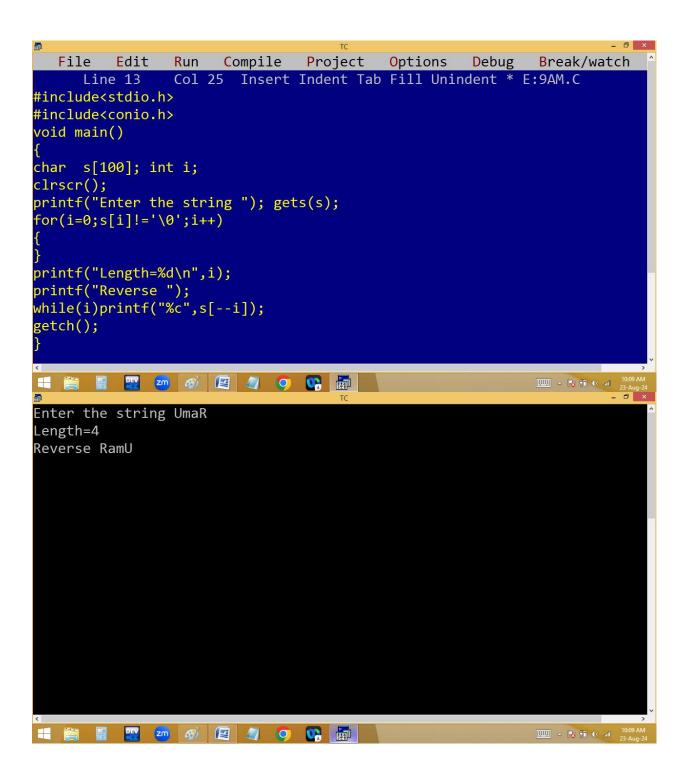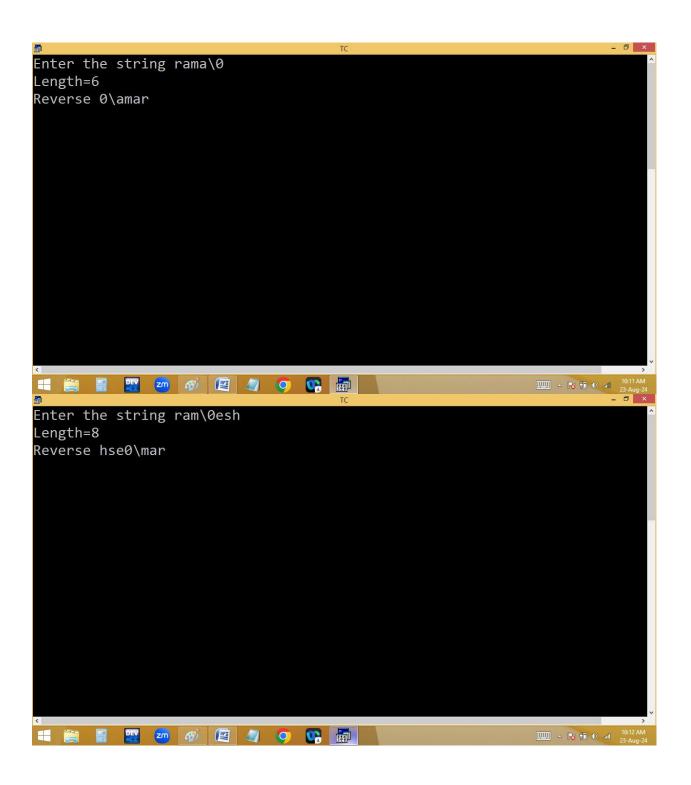
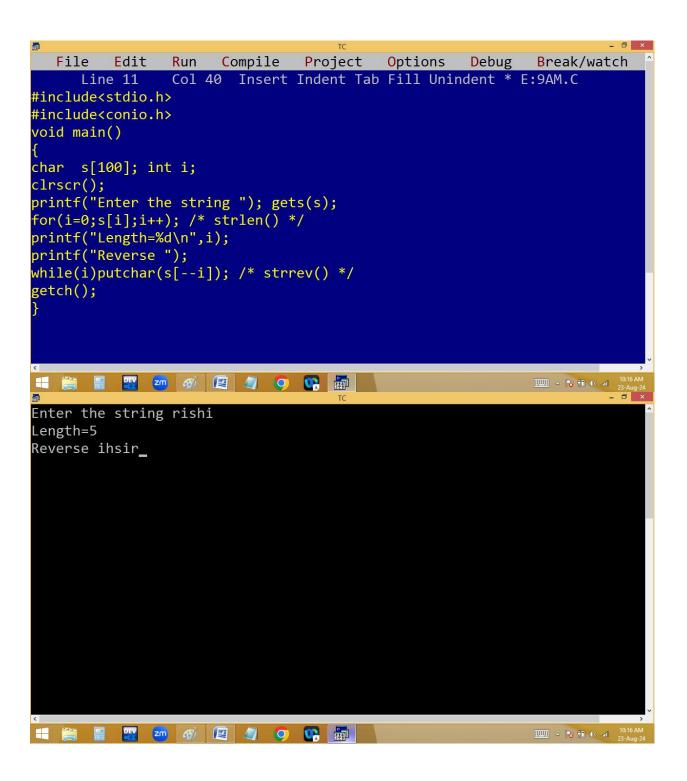# Finding string length and reverse string using user defined program:

```
                              TC                                    _ □ ×
   File    Edit    Run    Compile    Project    Options    Debug    Break/watch
       Line 13      Col 36    Insert Indent Tab Fill Unindent * E:9AM.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++)
{
}
printf("Length=%d\n",i);
printf("Reverse ");
for(i--;i>=0;i--)printf("%c",s[i]);_
getch();
}
```

```
                              TC                                    _ □ ×
Enter the string AbcD
Length=4
Reverse DcbA
```

File   Edit   Run   Compile   Project   Options   Debug   Break/watch

Line 13   Col 25   Insert Indent Tab Fill Unindent * E:9AM.C

```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++)
{
}
printf("Length=%d\n",i);
printf("Reverse ");
while(i)printf("%c",s[--i]);
getch();
}
```

```
Enter the string UmaR
Length=4
Reverse RamU
```

```
Enter the string rama\0
Length=6
Reverse 0\amar
```

```
Enter the string ram\0esh
Length=8
Reverse hse0\mar
```

```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 ");
while(i)putchar(s[--i]); /* strrev() */
getch();
}
```

```
Enter the string rishi
Length=5
Reverse ihsir_
```

```
for( i=0; s[i]!='\0';i++)
{
}                    strlen()

p("Len=%d",i);

p("Rev is ");

while(i)  printf("%c", s[--i]);  strrev();
        or
for(i--; i>=0; i-- ) p(s[i]);
```

i : 0 1 2 3 4
i : 4
3 2 1 0
D c b A

	65500	501	502	503	504	
s	A	b	c	D	\0	
	0	1	2	3	4	5

Lower to upper / upper to lower:

```
                                    TC                                    –  ⊡  ×
   File    Edit    Run    Compile    Project    Options    Debug    Break/watch  ^
      Line 10    Col 57   Insert Indent Tab Fill Unindent * E:9AM.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++)
if(s[i]>='a' && s[i]<='z') s[i]-=32; /* strupr() */
else if(s[i]>='A' && s[i]<='Z') s[i]+=32; /* strlwr() */_
printf("Converted string %s",s);
getch();
}
```
10:22 AM
23-Aug-24

```
TC                                                    _ □ ×
Enter the string James Bond - 007
Converted string jAMES bOND - 007 _
```

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

	65+32	98-32	99-32	68+32		
s	A	b	c	D	\0	
	0	1	2	3	4	5

Read a string and replace lower / upper / digit / space/ special char with @/#/$/*/^

```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++)
{
if(s[i]>='a' && s[i]<='z') s[i]='@';
else if(s[i]>='A' && s[i]<='Z') s[i]='#';
else if(s[i]>='0' && s[i]<='9') s[i]='$'; /* strlwr() */
else if(s[i]==' ') s[i]='*';
else s[i]='^';
}
printf("Converted string %s",s);
getch();
}
```

```
Enter the string Bahu Bali - 2
Converted string #@@@*#@@@*^*$_
```

```
File    Edit    Run    Compile    Project    Options    Debug    Break/watch
     Line 7        Col 1      Insert Indent Tab Fill Unindent * E:9AM.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++)puts(s+i);
getch();
}
```

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

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

65500	501	502	503	504	
A	b	c	D	\0	
0	1	2	3	4	5

s

65500+0*1=65500 to \0 ==> AbcD

65500+1*1=65501 to \0 ==> bcD

65500+2*1=65502 to \0 ==> cD

65500+3*1=65503 to \0 ==> D

65500+4*1=65504 = '\0' != '\0' ==> False

```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 */
for( ; i>0 ; i--, s[i]='\0')puts(s);
getch();
}
```

```
Enter the string Aish
Aish
Ais
Ai
A
```

for(i=0; s[i]; i++) ;   len=4

for (; i>0 ; i-- , s[i]='\0')puts(s);

i
4
3
2
1

	65500	501	502	503	504	
s	A	\b	\c	\D	\0	
	0	1	2	3	4	5

65500 to \0   abcd
65500 to \0   abc
65500 to \0   ab
65500 to \0   a