

Character set

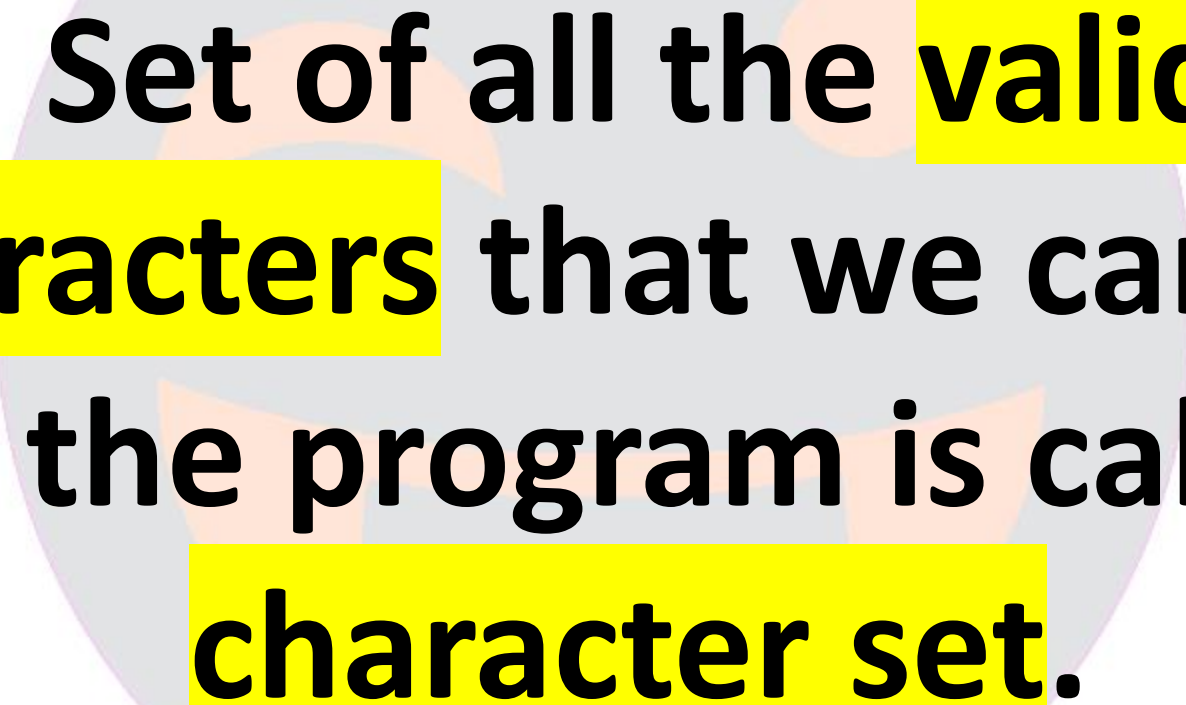
CHAPTER 17



SURESH TECHS

C PROGRAMMING COURSE

A B C D E F G H I J
K L M N O P Q R
S T U V W X Y Z



**Set of all the valid
characters that we can use
in the program is called
character set.**

Character set - charset



- 1. Letters**
- 2. Digits**
- 3. Special characters**
- 4. White spaces**

```
#include <stdio.h>
int main() {

    int number1, number2, sum;

    printf("Enter two numbers: ");
    scanf("%d %d", &number1, &number2);

    sum = number1 + number2;

    printf("%d + %d = %d", number1, number2, sum);
    return 0;
}
```

Letters

Type of Character	Description	Characters
Lowercase Alphabets	a to z	a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z
Uppercase Alphabets	A to Z	A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z

Digits

- 0,1,2,3,4,5,6,7,8,9



Special characters

~	Tilde
!	Exclamation mark
#	Number sign
\$	Dollar sign
%	Percent sign
^	Caret
&	Ampersand
*	Asterisk
(Left parenthesis
)	Right parenthesis
_	Underscore
+	Plus sign
	Vertical bar
\	Backslash

`	Apostrophe
-	Minus sign
=	Equal to sign
{	Left brace
}	Right brace
[Left bracket
]	Right bracket
:	Colon
"	Quotation mark
;	Semicolon
<	Opening angle bracket
>	Closing angle bracket
?	Question mark
,	Comma
.	Period
/	Slash

White spaces

- Blank space
- Horizontal tab(\t)
- Newline(line feed)
- Carriage return
- Form feed

Line feed(\n): To Take control at starting of next line.

Carriage return(\r): To take control at starting of same line.

Form feed(\f): To take control at starting of next page.

Why is form feed not working?

- This is an issue with the display driver for the output of the program. The console does not recognize the '\f' code.
- So it just displays the corresponding characters instead.
- The '\f' maps to a character with a value 12

All characters in a character set

Type of Character	Description	Characters
Lowercase Alphabets	a to z	a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z
Uppercase Alphabets	A to Z	A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z
Digits	0 to 9	0, 1, 2, 3, 4, 5, 6, 7, 8, 9
Special Characters		` ~ @ ! \$ # ^ * % & () [] { } < > + = _ - / \ ; : ' " , . ?
White Spaces		Blank space, Horizontal tab, Carriage return, Newline, Form feed

We can't use any other character

```
#include <stdio.h>
int main() {

    int number1, number2, sum;

    printf("Enter two numbers: ");
    scanf("%d %d", &number1, &number2);

    sum = number1 + number2;

    printf("%d + %d = %d", number1, number2, sum);
    return 0;
}
```



**Sometimes we may not find
certain characters**

Trigraph sequences