

[Tutorials ▼](#)[Exercises ▼](#)[Certificates ▼](#)[Services ▼](#)[Sign Up](#)[Log in](#)[CSS](#)[JAVASCRIPT](#)[SQL](#)[PYTHON](#)[JAVA](#)[PHP](#)[HOW TO](#)[W3.CSS](#)[C](#)[C++](#)[C#](#)[BOOTSTRAP](#)[R](#)

ADVERTISEMENT

# HTML ASCII Reference

[< Previous](#)[Next >](#)

ASCII was the first character set (encoding standard) used between computers on the Internet.

Both ISO-8859-1 (default in HTML 4.01) and UTF-8 (default in HTML5), are built on ASCII.

## The ASCII Character Set

ASCII stands for the "American Standard Code for Information Interchange".

It was designed in the early 60's, as a standard character set for computers and electronic devices.

ASCII is a 7-bit character set containing 128 characters.

It contains the numbers from 0-9, the upper and lower case English letters from A to Z, and some special characters.

The character sets used in modern computers, in HTML, and on the Internet, are all based on ASCII.

[Tutorials ▼](#)[Exercises ▼](#)[Certificates ▼](#)[Services ▼](#)[Sign Up](#)[Log in](#)[CSS](#)[JAVASCRIPT](#)[SQL](#)[PYTHON](#)[JAVA](#)[PHP](#)[HOW TO](#)[W3.CSS](#)[C](#)[C++](#)[C#](#)[BOOTSTRAP](#)[R](#)

## ASCII Printable Characters

ADVERTISEMENT

Char	Number	Description	
	0 - 31	Control characters (see below)	
	32	space	<a href="#">Try it</a>
!	33	exclamation mark	<a href="#">Try it</a>
"	34	quotation mark	<a href="#">Try it</a>
#	35	number sign	<a href="#">Try it</a>
\$	36	dollar sign	<a href="#">Try it</a>
%	37	percent sign	<a href="#">Try it</a>
&	38	ampersand	<a href="#">Try it</a>
'	39	apostrophe	<a href="#">Try it</a>
(	40	left parenthesis	<a href="#">Try it</a>
)	41	right parenthesis	<a href="#">Try it</a>
*	42	asterisk	<a href="#">Try it</a>



Tutorials ▼

Exercises ▼

Certificates ▼

Services ▼



Sign Up

Log in



CSS

JAVASCRIPT

SQL

PYTHON

JAVA

PHP

HOW TO

W3.CSS

C

C++

C#

BOOTSTRAP

R

ADVERTISEMENT	45	hyphen	Try it
.	46	period	Try it
/	47	slash	Try it
0	48	digit 0	Try it
1	49	digit 1	Try it
2	50	digit 2	Try it
3	51	digit 3	Try it
4	52	digit 4	Try it
5	53	digit 5	Try it
6	54	digit 6	Try it
7	55	digit 7	Try it
8	56	digit 8	Try it
9	57	digit 9	Try it
:	58	colon	Try it



Tutorials ▼

Exercises ▼

Certificates ▼

Services ▼



Sign Up

Log in



CSS

JAVASCRIPT

SQL

PYTHON

JAVA

PHP

HOW TO

W3.CSS

C

C++

C#

BOOTSTRAP

R

ADVERTISEMENT	61	equals-to	Try it
>	62	greater-than	Try it
?	63	question mark	Try it
@	64	at sign	Try it
A	65	uppercase A	Try it
B	66	uppercase B	Try it
C	67	uppercase C	Try it
D	68	uppercase D	Try it
E	69	uppercase E	Try it
F	70	uppercase F	Try it
G	71	uppercase G	Try it
H	72	uppercase H	Try it
I	73	uppercase I	Try it
J	74	uppercase J	Try it

[Tutorials ▼](#)[Exercises ▼](#)[Certificates ▼](#)[Services ▼](#)[Sign Up](#)[Log in](#)[CSS](#)[JAVASCRIPT](#)[SQL](#)[PYTHON](#)[JAVA](#)[PHP](#)[HOW TO](#)[W3.CSS](#)[C](#)[C++](#)[C#](#)[BOOTSTRAP](#)[R](#)

ADVERTISEMENT	77	uppercase M	<a href="#">Try it</a>
N	78	uppercase N	<a href="#">Try it</a>
O	79	uppercase O	<a href="#">Try it</a>
P	80	uppercase P	<a href="#">Try it</a>
Q	81	uppercase Q	<a href="#">Try it</a>
R	82	uppercase R	<a href="#">Try it</a>
S	83	uppercase S	<a href="#">Try it</a>
T	84	uppercase T	<a href="#">Try it</a>
U	85	uppercase U	<a href="#">Try it</a>
V	86	uppercase V	<a href="#">Try it</a>
W	87	uppercase W	<a href="#">Try it</a>
X	88	uppercase X	<a href="#">Try it</a>
Y	89	uppercase Y	<a href="#">Try it</a>
Z	90	uppercase Z	<a href="#">Try it</a>



Tutorials ▼

Exercises ▼

Certificates ▼

Services ▼



Sign Up

Log in



CSS

JAVASCRIPT

SQL

PYTHON

JAVA

PHP

HOW TO

W3.CSS

C

C++

C#

BOOTSTRAP

R

ADVERTISEMENT	93	right square bracket	Try it
^	94	caret	Try it
_	95	underscore	Try it
`	96	grave accent	Try it
a	97	lowercase a	Try it
b	98	lowercase b	Try it
c	99	lowercase c	Try it
d	100	lowercase d	Try it
e	101	lowercase e	Try it
f	102	lowercase f	Try it
g	103	lowercase g	Try it
h	104	lowercase h	Try it
i	105	lowercase i	Try it
j	106	lowercase j	Try it



Tutorials ▼

Exercises ▼

Certificates ▼

Services ▼



Sign Up

Log in



CSS

JAVASCRIPT

SQL

PYTHON

JAVA

PHP

HOW TO

W3.CSS

C

C++

C#

BOOTSTRAP

R

ADVERTISMENT	109	lowercase m	Try it
n	110	lowercase n	Try it
o	111	lowercase o	Try it
p	112	lowercase p	Try it
q	113	lowercase q	Try it
r	114	lowercase r	Try it
s	115	lowercase s	Try it
t	116	lowercase t	Try it
u	117	lowercase u	Try it
v	118	lowercase v	Try it
w	119	lowercase w	Try it
x	120	lowercase x	Try it
y	121	lowercase y	Try it
z	122	lowercase z	Try it

[Tutorials ▼](#)[Exercises ▼](#)[Certificates ▼](#)[Services ▼](#)[Sign Up](#)[Log in](#)[CSS](#)[JAVASCRIPT](#)[SQL](#)[PYTHON](#)[JAVA](#)[PHP](#)[HOW TO](#)[W3.CSS](#)[C](#)[C++](#)[C#](#)[BOOTSTRAP](#)[R](#)

ADVERTISEMENT

125

right curly brace

[Try it](#)

~

126

tilde

[Try it](#)

ADVERTISEMENT

## ASCII Device Control Characters

The ASCII control characters (range 00-31, plus 127) were designed to control hardware devices.

Control characters (except horizontal tab, line feed, and carriage return) have nothing to do inside an HTML document.





Tutorials ▼

Exercises ▼

Certificates ▼

Services ▼



Sign Up

Log in



CSS

JAVASCRIPT

SQL

PYTHON

JAVA

PHP

HOW TO

W3.CSS

C

C++

C#

BOOTSTRAP

R

ADVERTISEMENT SOH	01	start of header
STX	02	start of text
ETX	03	end of text
EOT	04	end of transmission
ENQ	05	enquiry
ACK	06	acknowledge
BEL	07	bell (ring)
BS	08	backspace
HT	09	horizontal tab
LF	10	line feed
VT	11	vertical tab
FF	12	form feed
CR	13	carriage return
SO	14	shift out
SI	15	shift in
DLE	16	data link escape



Tutorials ▼

Exercises ▼

Certificates ▼

Services ▼



Sign Up

Log in



CSS

JAVASCRIPT

SQL

PYTHON

JAVA

PHP

HOW TO

W3.CSS

C

C++

C#

BOOTSTRAP

R

DC3	19	device control 3
ADVERTISEMENT		
DC4	20	device control 4
NAK	21	negative acknowledge
SYN	22	synchronize
ETB	23	end transmission block
CAN	24	cancel
EM	25	end of medium
SUB	26	substitute
ESC	27	escape
FS	28	file separator
GS	29	group separator
RS	30	record separator
US	31	unit separator
DEL	127	delete (rubout)

[Tutorials](#) ▼[Exercises](#) ▼[Certificates](#) ▼[Services](#) ▼[Sign Up](#)[Log in](#)[CSS](#)[JAVASCRIPT](#)[SQL](#)[PYTHON](#)[JAVA](#)[PHP](#)[HOW TO](#)[W3.CSS](#)[C](#)[C++](#)[C#](#)[BOOTSTRAP](#)[R](#)

ADVERTISEMENT

**W3schools Pathfinder****Track your progress - it's free!**[Sign Up](#)[Log in](#)


ADVERTISEMENT

Lifelong Access to  
**All Current  
& Future  
Courses**

Our certifications are  
recognised worldwide.

Original price: \$1,465  
**Discount price: \$695**

[Get the deal](#)



COLOR PICKER

[Tutorials](#) ▼[Exercises](#) ▼[Certificates](#) ▼[Services](#) ▼[Sign Up](#)[Log in](#)[CSS](#)[JAVASCRIPT](#)[SQL](#)[PYTHON](#)[JAVA](#)[PHP](#)[HOW TO](#)[W3.CSS](#)[C](#)[C++](#)[C#](#)[BOOTSTRAP](#)[R](#)

ADVERTISEMENT



ADVERTISEMENT

ADVERTISEMENT

[SPACES](#)[UPGRADE](#)[AD-FREE](#)[NEWSLETTER](#)[GET CERTIFIED](#)[CONTACT US](#)

## Top Tutorials

[HTML Tutorial](#)  
[CSS Tutorial](#)  
[JavaScript Tutorial](#)  
[How To Tutorial](#)  
[SQL Tutorial](#)  
[Python Tutorial](#)  
[W3.CSS Tutorial](#)  
[Bootstrap Tutorial](#)

## Top References

[HTML Reference](#)  
[CSS Reference](#)  
[JavaScript Reference](#)  
[SQL Reference](#)  
[Python Reference](#)  
[W3.CSS Reference](#)  
[Bootstrap Reference](#)  
[PHP Reference](#)

[Tutorials](#) ▼[Exercises](#) ▼[Certificates](#) ▼[Services](#) ▼[Sign Up](#)[Log in](#)[CSS](#)[JAVASCRIPT](#)[SQL](#)[PYTHON](#)[JAVA](#)[PHP](#)[HOW TO](#)[W3.CSS](#)[C](#)[C++](#)[C#](#)[BOOTSTRAP](#)[R](#)

## ADVERTISEMENT

[HTML Examples](#)[CSS Examples](#)[JavaScript Examples](#)[How To Examples](#)[SQL Examples](#)[Python Examples](#)[W3.CSS Examples](#)[Bootstrap Examples](#)[PHP Examples](#)[Java Examples](#)[XML Examples](#)[jQuery Examples](#)[HTML Certificate](#)[CSS Certificate](#)[JavaScript Certificate](#)[Front End Certificate](#)[SQL Certificate](#)[Python Certificate](#)[PHP Certificate](#)[jQuery Certificate](#)[Java Certificate](#)[C++ Certificate](#)[C# Certificate](#)[XML Certificate](#)[FORUM](#) [ABOUT](#) [CLASSROOM](#)

W3Schools is optimized for learning and training. Examples might be simplified to improve reading and learning. Tutorials, references, and examples are constantly reviewed to avoid errors, but we cannot warrant full correctness of all content. While using W3Schools, you agree to have read and accepted our [terms of use](#), [cookie and privacy policy](#).

[Tutorials ▼](#)[Exercises ▼](#)[Certificates ▼](#)[Services ▼](#)[Sign Up](#)[Log in](#)[CSS](#)[JAVASCRIPT](#)[SQL](#)[PYTHON](#)[JAVA](#)[PHP](#)[HOW TO](#)[W3.CSS](#)[C](#)[C++](#)[C#](#)[BOOTSTRAP](#)[R](#)

ADVERTISEMENT