

ASCII vs Unicode

Dec	Chr	Dec	Chr	Dec	Chr	Dec	Chr	Dec	Chr
0	NUL	26	SUB	52	4	78	N	104	h
1	SOH	27	ESC	53	5	79	O	105	i
2	STX	28	FS	54	6	80	P	106	j
3	ETX	29	GS	55	7	81	Q	107	k
4	EOT	30	RS	56	8	82	R	108	l
5	ENQ	31	US	57	9	83	S	109	m
6	ACK	32		58	:	84	T	110	n
7	BEL	33	!	59	;	85	U	111	o
8	BS	34	"	60	<	86	V	112	p
9	HT	35	#	61	=	87	W	113	q
10	LF	36	\$	62	>	88	X	114	r
11	VT	37	%	63	?	89	Y	115	s
12	FF	38	&	64	@	90	Z	116	t
13	CR	39	'	65	A	91	[	117	u
14	SO	40	(	66	B	92	\	118	v
15	SI	41	)	67	C	93	]	119	w
16	DLE	42	*	68	D	94	^	120	x
17	DC1	43	+	69	E	95	_	121	y
18	DC2	44	,	70	F	96	`	122	z
19	DC3	45	-	71	G	97	a	123	{
20	DC4	46	.	72	H	98	b	124	|
21	NAK	47	/	73	I	99	c	125	}
22	SYN	48	0	74	J	100	d	126	~
23	ETB	49	1	75	K	101	e	127	DEL
24	CAN	50	2	76	L	102	f		
25	EM	51	3	77	M	103	g		

- Computers understand binary language.
- The data we provide to computer will be stored in binary form only.
- Ex: if we have number 10 then it is stored in the form binary I.e 1010

10 1010 both are numeric

How our computer system understand s alphabets letters, English alphabets?

As computers can understand only numeric how do we make them understand letters and alphabets?

- The solution is for English characters and other characters. We define some codes.
- Let us say 65-A
- If giving number and saying that it is a number
- If given number and saying a character then it is a code
- For English letter and other characters there are some codes. And those codes are called as ASCII codes.
- ASCII- American standard code for information interchange so, for every letter there is a code available.
- When we say a character A so, the number 65 will not appear on the screen it will appear as A only.

A->65
Z->90
a->97
Z->122

ASCII code are available for English uppercase alphabets lower case alphabets and digits as well as the special case characters and also the control characters that are available on the keyboard

ASCII code range from 0-127=128

Total 128 codes are there $128 = 2^7$ (2 to the power of 7)

Within 7 bits ASCII code can be represented.

When we convert into binary form. The binary digits will be 7 not more than 7

If we take 65

1000001

1 byte= 8 bits

Enough to store ASCII Code

s="A"

ord(s)

65

ASCII code is a universal code which every machine follows in the universe.