

```

1 #include <string.h>
2 #include <stdio.h>
3 #include <stdlib.h>
4
5 void inspect(char s[]) {
6     int index = 0;
7     while(s[index] != 0) {
8         printf("%c (%hhx) ", s[index], s[index]);
9         index += 1;
10    }
11    printf("\n");
12 }

```

```

13
14 char lower(char c) {
15     if(c >= 65 && c <= 90) {
16         return c + 32;
17     }
18     return c;
19 }

```

if(c >= 'A' && c <= 'Z')

take a string and change upper to lower for each char

```

20
21 void lowercase(char s[]) {
22     int index = 0;

```

```

23
24     while(s[index] != '\0') {
25         s[index] = lower(s[index]);
26         index += 1;
27     }
28 }

```

```

29 }
30
31 int main() {
32     char abc[] = "ABC";
33     lowercase(abc);
34     inspect(abc);

```

→ expect a(97) b(98) c(99)

```

35
36     char mixed[] = "Hello Aaron!";
37     lowercase(mixed);
38     inspect(mixed);

```

→ expect h(104) e(101) ...

```

39
40
41
42
43
44
45 }

```

index < strlen(s)

for(int index=0; s[index] != 0; index++) {

c | 0b00100000

bitwise or | perform the operation
bitwise and & on each bit of the
inputs

*0110
1 1010

1110*

*0110
& 1010

0010*

Binary	Dec	Char	Binary	Dec	Char
01000000	64	@	01100000	96	'
01000001	65	A	01100001	97	a
01000010	66	B	01100010	98	b
01000011	67	C	01100011	99	c
01000100	68	D	01100100	100	d
01000101	69	E	01100101	101	e
01000110	70	F	01100110	102	f
01000111	71	G	01100111	103	g
01001000	72	H	01101000	104	h
01001001	73	I	01101001	105	i
01001010	74	J	01101010	106	j
01001011	75	K	01101011	107	k
01001100	76	L	01101100	108	l
01001101	77	M	01101101	109	m
01001110	78	N	01101110	110	n
01001111	79	O	01101111	111	o
01010000	80	P	01110000	112	p
01010001	81	Q	01110001	113	q
01010010	82	R	01110010	114	r
01010011	83	S	01110011	115	s
01010100	84	T	01110100	116	t
01010101	85	U	01110101	117	u
01010110	86	V	01110110	118	v
01010111	87	W	01110111	119	w
01011000	88	X	01111000	120	x
01011001	89	Y	01111001	121	y
01011010	90	Z	01111010	122	z
01011011	91	[01111011	123	{
01011100	92	\	01111100	124	
01011101	93]	01111101	125	}
01011110	94	^	01111110	126	~
01011111	95	_	01111111	127	DEL

how to
convert
upper to
lower?