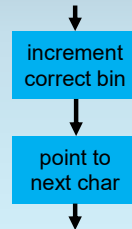## We Are Done with That Character

We are done counting that character.

The loop is inside the first task shown here (the one labeled "increment correct bin").

So now we need to **point to the next character**…

increment correct bin

point to next char

Go to the End of the Loop

COUNTLOOP
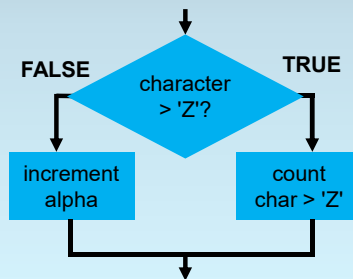LDR R2,R1,#0
BRz DONE
ADD R2,R2,R3
BRp AT_LEAST_A
NON_ALPHA
LDR R6,R0,#0
ADD R6,R6,#1
STR R6,R0,#0
BRnzp GET_NEXT

We are done counting this character.

Branch (always) to the end of our loop (make up a name for it!).

We Need to Check for a Capital Letter

Next, we compare with capital **Z**.

FALSE   character > 'Z'?   TRUE

increment alpha

count char > 'Z'

Subtract Z to Make the Next Comparison

x00	x40	x41	x5A	x5B	x60	x61	x7A	x7B	x7F
NUL … @		A … Z		[… `		a … z		{ … DEL	

This time, we want to subtract **'Z'**.

But we already subtracted **'@'**, so now we add **'@' - 'Z'** (let's keep this value in **R4**).

We discard the result (store the result in **R6**).