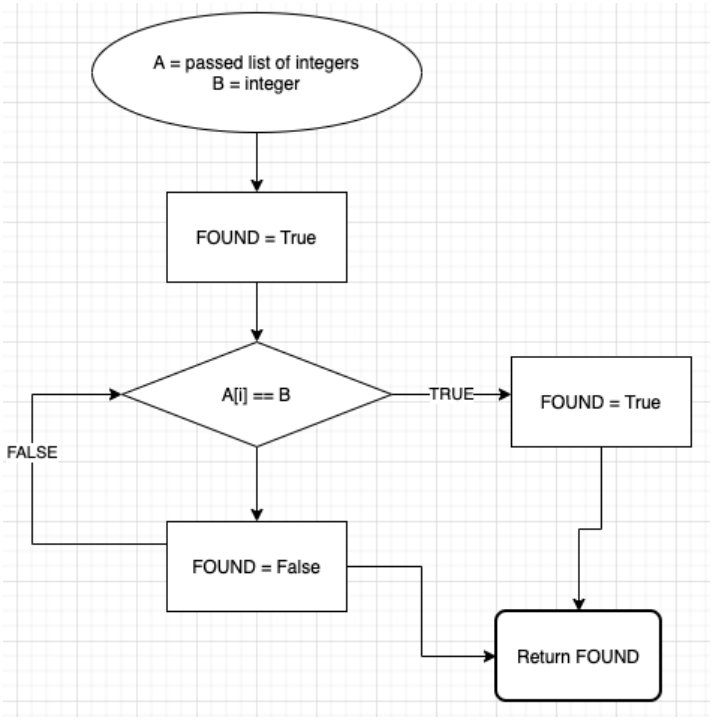
Linear Search pseudocode

```
A = passed list of integers
FOUND = True

Loop N from 0 to len(A)-1:
        if A[i] == B:
                FOUND = True
        else:
                FOUND = False
        end if
End loop

Return found
```

Flowchart for Linear Search:



Trace Table for Linear Search:

```
a = [0,1,2,3,4,5,6,7,8,9]
b = 4
```

I	I < len(A)	A[i]	A[i] == B or FOUND
0	0 < 9, True	0	FALSE
1	1 < 9, True	1	FALSE
2	2 < 9, True	2	FALSE
3	3 < 9, True	3	FALSE
4	4 < 9, True	4	TRUE
5	5 < 9, True	5	FALSE
6	6 < 9, True	6	FALSE
7	7 < 9, True	7	FALSE
8	8 < 9, True	8	FALSE
9	9<9, True	9	FALSE

Merge Strings pseudocode

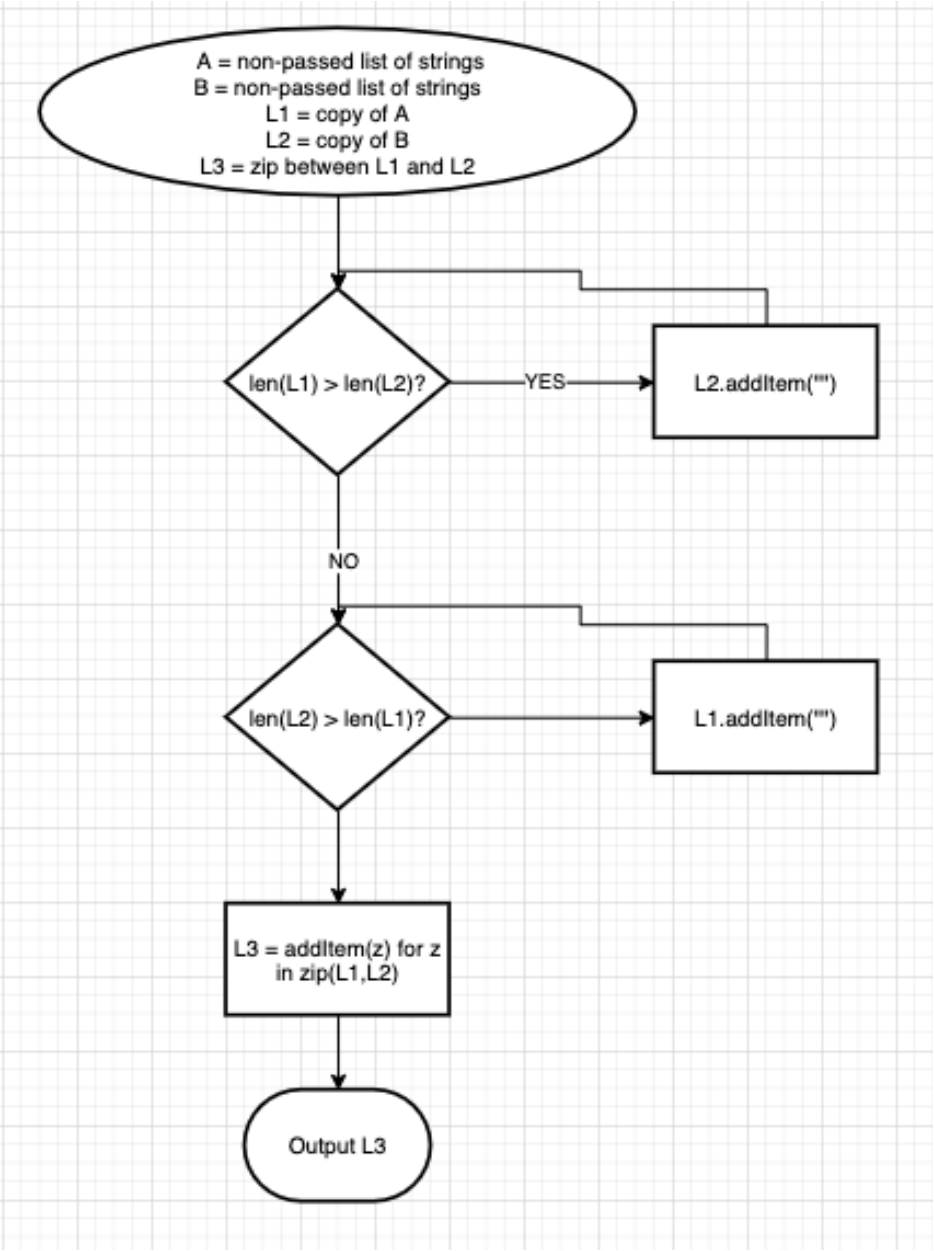
A = non-passed list of strings
B = non-passed list of strings
L1 = A.copy()
L2 = B.copy()

If len(L1) > len(L2):
    L2.addItem(“”), until len(L1) = len(L2)
End if

If len(L2) > len(L1):
    L1.addItem(“”), until len(L1) = len(L2)
End if

L3 = L3.addItem(Z) for Z in zip(L1, L2)
Return L3

Flowchart for merge Strings



Trace Table for Merge Strings

```
a = ["one", "two", "three", "four"]
b = ["one", "two", "three","four", “five"]
```

len(L1)	len(L2)	L1[i]	L2[i]	len(L2) > len(L1), True, new len(L1)
0	0	“one”	“one”	0 —> “one”
1	1	“two”	“two”	1 —> “two”
2	2	“three”	“three”	2 —> “three”
3	3	“four"	“four"	3 —> “four”
	4		“five”	4 —> “”