



Chapter 8

Homework

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Bubble sort



<https://www.youtube.com/watch?v=lyZQPjUT5B4>



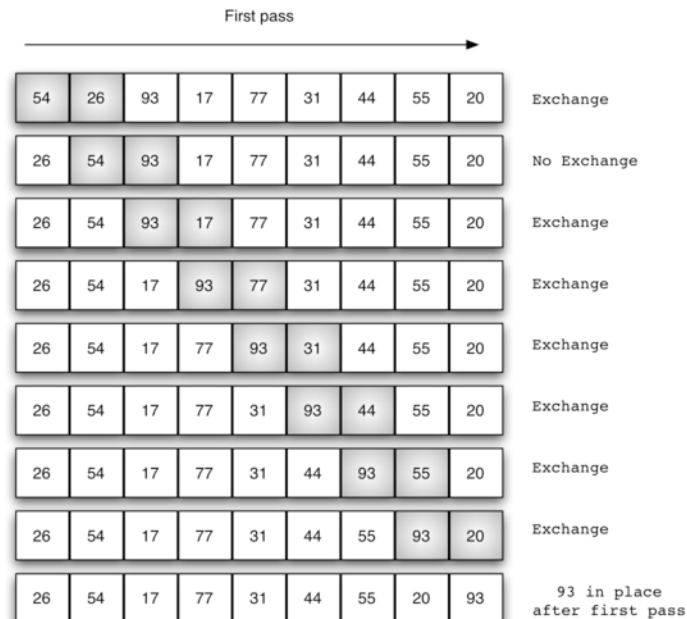
Problem 1

- ▶ Write a program that takes 10 strings(maximum length: 20), and prints the strings in alphabetic order.
- ▶ Use bubblesort algorithm to write your own function. (increasing order)
- ▶ Use “strcpy” and “strcmp” functions in “string” library.

```
Enter a string: Westborough
Enter a string: Wellesley
Enter a string: Natick
Enter a string: Waltham
Enter a string: Framingham
Enter a string: Marlborough
Enter a string: Boston
Enter a string: Ashland
Enter a string: Hopkington
Enter a string: Shrewsbury
```

The strings in sorted order are:

```
Ashland
Boston
Framingham
Hopkington
Marlborough
Natick
Shrewsbury
Waltham
Wellesley
Westborough
```



Problem 2

- ▶ Write a program that takes 3 lines of English strings to a two-dimension array, and count off each alphabets from input.
- ▶ Uppercase and lowercase letters should be counted as a same character.
- ▶ Store the totals for each letters in an array, and prints the values.

```
Enter three lines of text:  
This program inputs three lines of text  
and determines the number of occurrences  
of each character in the three lines.
```

```
The total occurrences of each character:
```

```
a: 5  
b: 1  
c: 6  
d: 2  
e: 17  
f: 3  
g: 1  
h: 7  
i: 6  
j: 0
```

```
k: 0  
l: 2  
m: 3  
n: 8  
o: 5  
p: 2  
q: 0  
r: 10  
s: 6  
t: 10  
u: 3  
v: 0  
w: 0  
x: 1  
y: 0  
z: 0
```



Problem 3

- ▶ Write a program that reads three lines of text and prints out the number of one-letter words, two-letter words, three-letter words, and so on to 10 ten-letter words.
- ▶ Use “strtok” and “strlen” functions in “string” library.

```
Enter three lines of text:  
This program determines the length of each word  
in the input text. The input text here has words  
of several different lengths.
```

```
3 words of length 2  
4 words of length 3  
6 words of length 4  
3 words of length 5  
1 word of length 6  
3 words of length 7  
1 word of length 9  
1 word of length 10
```



Homework 07

▶ 제출 파일: “본인의학번_HW07.zip”

ex) 본인의 학번이 2028123456일 경우 -> 2028123456_HW07.zip

- 아래 내용을 하나로 압축한 zip file.

- 1.c, ..., 3.c

- 각각의 문제에 대한 답안 소스파일.

- 1.png, ... , 3.png

- 각각의 문제에 대한 소스파일을 실행한 실행결과 캡처 이미지.

- (jpg 나 png 형식)

▶ BlackBoard(kulms.korea.ac.kr) → Assignments

▶ Due Date : 2018/05/08 23:59

▶ 형식에 맞지 않는 제출물은, 미제출로 처리됩니다.