P19

8.

Programming Languages Homework 4

功課習題:[第四章投影片]

1. P04

2. P05 **9.** P21

3. P06 **10.** P25

4. P07 **11.** P26

5. P08 **12.** P28

6. P13 **13.** P30

7. P14 **14.** P37

課本習題:

15. 6.11

6.11 (Bubble Sort) The bubble sort presented in Fig. 6.15 is inefficient for large arrays. Make the following simple modifications to improve its performance.

- a) After the first pass, the largest number is guaranteed to be in the highest-numbered element of the array; after the second pass, the two highest numbers are "in place," and so on. Instead of making nine comparisons on every pass, modify the bubble sort to make eight comparisons on the second pass, seven on the third pass and so on.
- b) The data in the array may already be in the proper or near-proper order, so why make nine passes if fewer will suffice? Modify the sort to check at the end of each pass whether any swaps have been made. If none has been made, then the data must already be in the proper order, so the program should terminate. If swaps have been made, then at lease one more pass is needed.

繳交期限:11/25 (四) 晚上 11:59 前

繳交格式:103360001 李奇樺.zip

繳交內容:讀書會(包含:組員、討論時間、地點)、心得報告(包含:上傳到 GitHub

的截圖)和 Lab 所檢查之程式檔案

上傳位置:Homework\Upload

帳號、密碼: CC

如無法上傳可 Mail 繳交的作業檔案(zip)至

徐聖為 qw80416@gmail.com

高語謙 xab96040311101@gmail.com

陳彥霖 david87124@gmail.com

張浩維 howard3317@gmail.com