
期末模擬考 (Exercise)

- ▶ 不計分(期末考題庫)
- ▶ 13:00~15:00: 做完的同學，可舉手模擬驗收繳交
- ▶ 15:00~16:00: 問題討論 (for 模擬考 only)

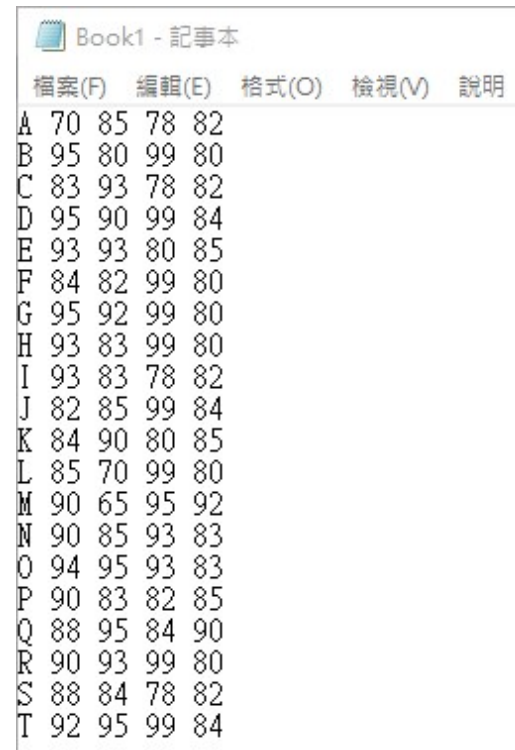


Exercise 1

► Please read Book1.txt

- (1) Fetch everyone's grade and calculate his/her total score and average.
- (2) Calculate class average and its mean-square deviation (i.e., standard deviation)
- (3) Get class rank and sort by student ranking.
- (4) Print on grade.txt

PS: Need to create a Book1.txt. =====>



	檔案(F)	編輯(E)	格式(O)	檢視(V)	說明
A	70	85	78	82	
B	95	80	99	80	
C	83	93	78	82	
D	95	90	99	84	
E	93	93	80	85	
F	84	82	99	80	
G	95	92	99	80	
H	93	83	99	80	
I	93	83	78	82	
J	82	85	99	84	
K	84	90	80	85	
L	85	70	99	80	
M	90	65	95	92	
N	90	85	93	83	
O	94	95	93	83	
P	90	83	82	85	
Q	88	95	84	90	
R	90	93	99	80	
S	88	84	78	82	
T	92	95	99	84	

Result:

Microsoft Visual Studio 偵錯主控台

名次	姓名	分數1	分數2	分數3	分數4	總分	平均
1	T	92	95	99	84	370	92.50
2	D	95	90	99	84	368	92.00
3	G	95	92	99	80	366	91.50
4	O	94	95	93	83	365	91.25
5	R	90	93	99	80	362	90.50
6	Q	88	95	84	90	357	89.25
7	H	93	83	99	80	355	88.75
8	B	95	80	99	80	354	88.50
9	E	93	93	80	85	351	87.75
10	N	90	85	93	83	351	87.75
11	J	82	85	99	84	350	87.50
12	F	84	82	99	80	345	86.25
13	M	90	65	95	92	342	85.50
14	P	90	83	82	85	340	85.00
15	K	84	90	80	85	339	84.75
16	I	93	83	78	82	336	84.00
17	C	83	93	78	82	336	84.00
18	L	85	70	99	80	334	83.50
19	S	88	84	78	82	332	83.00
20	A	70	85	78	82	315	78.75
平均		88.70	86.05	90.50	83.15		
均方差		5.94	7.88	9.06	3.18		

grade - 記事本

檔案(F)	編輯(E)	格式(O)	檢視(V)	說明		
名次	姓名	分數1	分數2	分數3	分數4	總分 平均
1	T	92	95	99	84	370 92.50
2	D	95	90	99	84	368 92.00
3	G	95	92	99	80	366 91.50
4	O	94	95	93	83	365 91.25
5	R	90	93	99	80	362 90.50
6	Q	88	95	84	90	357 89.25
7	H	93	83	99	80	355 88.75
8	B	95	80	99	80	354 88.50
9	E	93	93	80	85	351 87.75
10	N	90	85	93	83	351 87.75
11	J	82	85	99	84	350 87.50
12	F	84	82	99	80	345 86.25
13	M	90	65	95	92	342 85.50
14	P	90	83	82	85	340 85.00
15	K	84	90	80	85	339 84.75
16	I	93	83	78	82	336 84.00
17	C	83	93	78	82	336 84.00
18	L	85	70	99	80	334 83.50
19	S	88	84	78	82	332 83.00
20	A	70	85	78	82	315 78.75
平均		88.70	86.05	90.50	83.15	
均方差		5.94	7.88	9.06	3.18	

Exercise 2

- Design a program to make a calendar table , and print on Test.txt

Use the format:

```
void calendar(FILE* readPtr, int Day, int FirstDate)
{
    for (size_t count = 0; count <= FirstDate - 1; count++)
    {
        ...
    }
    for (size_t count = 1; count <= Day; count++)
    {
        ...
    }
}
```

Result:

Microsoft Visual Studio 偵錯主控台

請輸入天數:30

請輸入該月第一天的星期:5

C:\Users\user\source\repos\week15\Debug\week15.exe (處理序 12560) 已結束，代碼為 0。
若要在偵錯停止時自動關閉主控台，請啟用 [工具] -> [選項] -> [偵錯] -> [在偵錯停止時自動
按任意鍵關閉此視窗] . . .

Test.txt - 記事本

檔案(F) 編輯(E) 格式(O) 檢視(V) 說明

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

第 1 列 · 第 1 行

100%

Windows (CRLF)

UTF-8

Exercise 3

- ▶ Use the following framework, Design a function to exchange two “student” data.

Use the format:

```
struct student
{
    long id;
    char Name[10];
    int subject1;
    int subject2;
    int subject3;
};

void swap(struct student *s1, struct student *s2);
void printscore(struct student *sn);

int main()
{
    struct student st1 = { 104310030,"學生1",60,70,80 };
    struct student st2 = { 104310047,"學生2",90,80,70 };
    ...
    return 0;
}
```

Result:

C:\Users\user\source\repos\week15\Debug\week15.exe

```
交換前
104310030 學生1
科目1成績:60
科目2成績:70
科目3成績:80
104310047 學生2
科目1成績:90
科目2成績:80
科目3成績:70
交換後
104310047 學生2
科目1成績:90
科目2成績:80
科目3成績:70
104310030 學生1
科目1成績:60
科目2成績:70
科目3成績:80
請按任意鍵繼續 . . .
```

Exercise 4

- ▶ Please calculate how many letters, spaces and newlines in the result of Exercise 1 (Book1.txt).
- ▶ Please save those 3 answers as a txt file (Result.txt).

Use the format:

```
struct Data {  
    int Character = 0;  
    int Newline = 0;  
    int Space = 0;  
}Data;  
  
void textFile(FILE* readPtr);
```

Result:



Exercise 5

- ▶ Odd parity-check: If the count of bits with value “1” is even, the parity bit value is set to 1
→ i.e., the added tail bit makes the total count of 1’s to “odd” .
- ▶ Please enter a number from 0~127 and show the result down below.
(**struct Check** must be used)

Use the format:

```
struct Check {
    int odd;
    struct Check *next;
};
typedef struct Check *check;

int DisplayBits(check *sPtr, unsigned int value);
int isEmpty(check sPtr);
void insert(check *sPtr, int Value);
void printList(check currentPtr, int Value);
```

Result:

```
Plz enter a number (0~127) : 64
0 --> 1 --> 0 --> 0 --> 0 --> 0 --> 0 --> 0 --> NULL
0 --> 1 --> 0 --> 0 --> 0 --> 0 --> 0 --> 0 --> 0 --> NULL

C:\Users\Username\Desktop\2\Debug\2.exe (處理序 17788) 已結束，代碼為 0。
若要在偵錯停止時自動關閉主控台，請啟用 [工具] -> [選項] -> [偵錯] -> [在偵錯停止時自動關閉主控台]。
按任意鍵關閉此視窗 . . .

Plz enter a number (0~127) : 65
0 --> 1 --> 0 --> 0 --> 0 --> 0 --> 0 --> 1 --> NULL
0 --> 1 --> 0 --> 0 --> 0 --> 0 --> 0 --> 1 --> 1 --> NULL

C:\Users\Username\Desktop\2\Debug\2.exe (處理序 15432) 已結束，代碼為 0。
若要在偵錯停止時自動關閉主控台，請啟用 [工具] -> [選項] -> [偵錯] -> [在偵錯停止時自動關閉主控台]。
按任意鍵關閉此視窗 . . .
```





test1.txt



test2.txt



test3.txt



test4.txt



test5.txt

