CH10

1.

```
Enter the row and column dimensions of the array
3 4
Enter 3 rows of 4 doubles each
1.0 2.0 3.0 4.0
5.0 6.0 7.0 8.0
9.0 8.0 1.0 2.0
Echoing the 2 dim. array, matix1
1 2 3 4
5 6 7 8
9 8 1 2
Enter the row and column dimensions of the array
3 4
Enter 3 rows of 4 doubles each
1.0 1.0 1.0 1.0
-1.0 -1.0 -1.0 -1.0
2.0 2.0 2.0 2.0
Echoing the 2 dim. array, matix2
1 1 1 1
-1 -1 -1 -1
2 2 2 2
Assigning matrix 2 to matrix 3
Displaying the 2 dim arry, matrix3 resulting from assignment
Rows 3 Cols 4
1 1 1 1
-1 -1 -1 -1
2 2 2 2
Displaying the 2 dim arry, sum of matrix 1 and 2
Rows 3 Cols 4
2 3 4 5
4 5 6 7
11 10 3 4
```

Hint:

✓ **Default constructor for which you choose a default maximum rows and maximum columns**

✓ **Parameterized constructor, which sets maximum rows and maximum columns**

✓ **A void member function that allows setting a particular row-column entry**

✓ **A double member function that allows retrieving a particular row-column entry**

✓ **Remark: Suggest accessor and mutator member functions for these accesses.**

✓ **Overload + as friend to add to matrices of the same size**

✓ **Overload =**

✓ **Copy constructor**

✓ **Destructor**

✓ **Use const for members that do not change**

Notes: The function call operator is overloaded to serve as index. That way, matrix(i, j) returns the (i, j) element, while matrix(i) returns the ith row.

3.

```
Enter a string less than 80 characters long.
An apple a day keeps the doctor away.
Your string reversed is :.yawa rotcod eht speek yad a elppa nA
And your number of words is : 8
```

CodeMate hint: Use strlen to calculate the address of the last character in the string.

Loop until head $\geq$ tail. Use cin.getline to input a C-String.

4.

CodeMate hint : Recall that cin >> variable leaves a newline in the buffer. This can be a problem if you are mixing cin >> variable and getline.   Use cin.ignore to discard the newline.

```
Enter person name.
Mile
Enter number of channels.
5
Enter name of channel 1
a1
Enter name of channel 2
a2
Enter name of channel 3
a3
Enter name of channel 4
a4
Enter name of channel 5
a5

Person 1's data:
Name :Mile
Number of channels:5
        Channel 1:a1
        Channel 2:a2
        Channel 3:a3
        Channel 4:a4
        Channel 5:a5

Person 2's data after assignment from student 1:
Name :Mile
Number of channels:5
        Channel 1:a1
        Channel 2:a2
        Channel 3:a3
        Channel 4:a4
        Channel 5:a5

Person 1's data after reset:
Name :Mile
Number of channels:0

Person 2's data, should still have original classes:
Name :Mile
Number of channels:5
        Channel 1:a1
        Channel 2:a2
        Channel 3:a3
        Channel 4:a4
        Channel 5:a5
```

8.

```
Enter  default TV display type :
VA
Enter default TV Dimension :
24.8
Enter the number of connectivity modes
2
Enter default TV connectivity support types :
HDMI
DP
Default TV mode :
Display type : VA
Dimension(inches): 24.8
connectivity support types:
HDMI
DP
Enter TV numbers :3

Enter index of TVs required of custimization(input -1 to end)
0
Enter TV#0 display type :
IPS
Enter TV#0 Dimension :
27.0
Enter the number of connectivity modes
1
Enter TV#0 connectivity support types :
HDMI

Enter index of TVs required of custimization(input -1 to end)
-1

TV#0
Display type : IPS
Dimension(inches): 27
connectivity support types:
HDMI
TV#1
Display type : VA
Dimension(inches): 24.8
connectivity support types:
HDMI
DP
TV#2
Display type : VA
Dimension(inches): 24.8
connectivity support types:
HDMI
DP
```

CH11

1.
```
A::f() called
A::g() called
```

此題需要各自寫成 **f.h, f.cpp, g.h, g.cpp**，不可直接印出結果。

3.

```
Testing constructor RainbowColor(char)
1 R
2 O
3 Y
4 G
5 B
6 I
7 P

Testing RainbowColor(int) constructor
1 R
2 O
3 Y
4 G
5 B
6 I
7 P

Testing the getRainbowColorByName and outputRainbowColor
R
1 R
Testing the getRainbowColorByName and outputRainbowColor
G
4 G
Testing the getRainbowColorByName and outputRainbowColor
B
5 B
Testing the getRainbowColorByName and outputRainbowColor
A
A is not a RainbowColor. Exiting

end of loops

Testing nextRainbowColor member
Y
current RainbowColor 3 Y
next RainbowColor 4 G
B
current RainbowColor 5 B
next RainbowColor 6 I
A
A is not a RainbowColor. Exiting
```

CH12

2. 請同學若自己產生測資，請格式與助教附的測資格式相同！

```
Enter a file name :data
Average of 10 numbers is 6.05
Enter a file name :dataa
Can't open file dataa
```

3.

```
Enter a file name :data2
Median number : 6 , value : 6
Quartile : 2 6 10
```
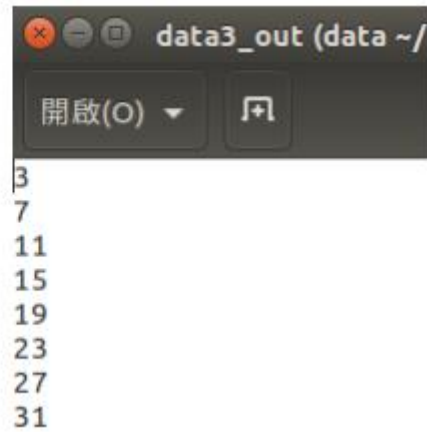
5.

```
Enter a file name :data3
Bulid data3_out
```

data3

data3 (data ~/文件/data/0

開啟(O) ▼

3 7 11 15 19 23 27 31 38 40

data3_out

data3_out (data ~/

開啟(O) ▼

3
7
11
15
19
23
27
31

→