

Part 3, Coding 程式題

1.

```
C:\Users\User\Desktop\hw5_code_problem01.cpp.exe
Enter a number between 1-20 and it will continue convert to Roman numeral.(input 0 to close the converter)
You enter: 1
1 equal I

You enter: 2
2 equal II

You enter: 3
3 equal III

You enter: 20
20 equal XX

You enter: 15
15 equal XV

You enter: 11
11 equal XI

You enter: 13
13 equal XIII

You enter: 0
You enter 0, so the converter close.Bye bye.

Process returned 0 (0x0)   execution time : 11.103 s
Press any key to continue.
```

2.

```
C:\Users\User\Desktop\hw5_code_problem02.cpp.exe
Enter the monkey data!
How many pounds of food the monkey #1 eats each day during a week?
Day#1 11
Day#2 13
Day#3 15
Day#4 17.445
Day#5 18
Day#6 19.632
Day#7 3.1415
How many pounds of food the monkey #2 eats each day during a week?
Day#1 2.732
Day#2 1.414
Day#3 3
Day#4 79
Day#5 49
Day#6 50
Day#7 100
How many pounds of food the monkey #3 eats each day during a week?
Day#1 61
Day#2 93
Day#3 700
Day#4 4
Day#5 5
Day#6 6
Day#7 3
Average amount of food eaten per day by the whole family of monkeys is 179.195 pounds

The least amount of food eaten during the week is monkey#2 ate 1.414 pounds in day#2
The greatest amount of food eaten during the week is monkey#3 ate 700 pounds in day#3

Process returned 0 (0x0)   execution time : 31.795 s
Press any key to continue.
```

3.

```
C:\Users\User\Desktop\hw5_code_problem03.cpp.exe
Enter 5 numbers between 0-9 to join the lottery
Enter number#1: 3
Enter number#2: 1
Enter number#3: 4
Enter number#4: 1
Enter number#5: 5
The winning digits are 5 8 1 5 1
The player's digits are 3 1 4 1 5
0 number matched!
Do you want to play again?(Y or N)Y
Enter 5 numbers between 0-9 to join the lottery
Enter number#1: 1
Enter number#2: 2
Enter number#3: 3
Enter number#4: 4
Enter number#5: 5
The winning digits are 4 2 2 5 2
The player's digits are 1 2 3 4 5
1 number matched!
Do you want to play again?(Y or N)n
Lottery close,bye.

Process returned 0 (0x0)   execution time : 20.454 s
Press any key to continue.
```

4.

輸入數據未滿 30 個時:

```
C:\Users\User\Desktop\hw5_code_problem04.cpp.exe
Enter the city name.Taipei
Enter the starting time by YYYYMM.(e.g.201901,199810,etc.)201905
Enter a consecutive data for the monthly rain fall.(the max consecutive range is 30)
Enter -1 to end the series and will show you the report!
The month#1: 100
The month#2: 121.2
The month#3: 145
The month#4: 90
The month#5: 80
The month#6: 70
The month#7: 36
The month#8: 77
The month#9: 88
The month#10: 45
The month#11: 212
The month#12: 44
The month#13: 20
The month#14: 34
The month#15: 1.414
The month#16: 3.1415
The month#17: 2.732
The month#18: 777
The month#19: 66
The month#20: 20
The month#21: 20
The month#22: 20
The month#23: 20
The month#24: 20
The month#25: 30
The month#26: 20
The month#27: 20
The month#28: -1
The series end!Show you the rain report below!

May 2019-July 2021 Rain Report for Taipei country.
Total rainfall in this period: 2182.49 inches.
Average monthly rainfall: 80.83 inches.
The least rain fell in July, 2020 with 1.41 inches.
The most rain fell in October, 2020 with 777.00 inches.
```

輸入數據 30 個時:

```
C:\Users\User\Desktop\hw5_code_problem04.cpp.exe
Enter the city name.China
Enter the starting time by YYYYMM.(e.g.201901,199810,etc.)201905
Enter a consecutive data for the monthly rain fall.(the max consecutive range is 30)
Enter -1 to end the series and will show you the report!
The month#1: 10
The month#2: 10
The month#3: 10
The month#4: 10
The month#5: 10
The month#6: 10
The month#7: 10
The month#8: 10
The month#9: 10
The month#10: 10
The month#11: 10
The month#12: 10
The month#13: 10
The month#14: 10
The month#15: 10
The month#16: 1
The month#17: 19
The month#18: 10
The month#19: 1
The month#20: 10
The month#21: 10
The month#22: 10
The month#23: 10
The month#24: 10
The month#25: 10
The month#26: 10
The month#27: 10
The month#28: 0.1
The month#29: 19.9
The month#30: 10

May 2019-October 2021 Rain Report for China country.
Total rainfall in this period: 291.00 inches.
Average monthly rainfall: 9.70 inches.
The least rain fell in August, 2021 with 0.10 inches.
The most rain fell in September, 2021 with 19.90 inches.

Process returned 0 (0x0)   execution time : 49.343 s
Press any key to continue.
```

5.

```
C:\Users\User\Desktop\hw5_code_problem05.cpp.exe
1) Cola          $1   Number in Machine: 20
2) Root Beer    $1   Number in Machine: 20
3) Lemon-Lime   $1   Number in Machine: 20
4) Grape Soda   $1   Number in Machine: 20
5) Water        $1   Number in Machine: 20

Select a drink(1-5) or enter 6 to quit: 1
Enter the amount of money you want to put in to the machine: 1.45
Do you want to continue?(Y or N)Y
Return the change: 0.45
Here is your beverage.
Do you want to make another purchase? Please enter Y or N: Y

1) Cola          $1.00 Number in Machine: 19
2) Root Beer    $1.00 Number in Machine: 20
3) Lemon-Lime   $1.00 Number in Machine: 20
4) Grape Soda   $1.00 Number in Machine: 20
5) Water        $1.00 Number in Machine: 20

Select a drink(1-5) or enter 6 to quit: 3
Enter the amount of money you want to put in to the machine: 3.15
Do you want to continue?(Y or N)N
Return all your money: 3.15
Do you want to make another purchase? Please enter Y or N: Y

1) Cola          $1.00 Number in Machine: 19
2) Root Beer    $1.00 Number in Machine: 20
3) Lemon-Lime   $1.00 Number in Machine: 20
4) Grape Soda   $1.00 Number in Machine: 20
5) Water        $1.00 Number in Machine: 20

Select a drink(1-5) or enter 6 to quit: 4
Enter the amount of money you want to put in to the machine: 3.77
Do you want to continue?(Y or N)Y
Return the change: 2.77
Here is your beverage.
Do you want to make another purchase? Please enter Y or N: N

Today is over, below is the machine currently condition.
Drink          Number Left
Cola           $      19
Root Beer      $      20
Lemon-Lime     $      20
Grape Soda     $      19
Water          $      20
Today total money collected: 2.00

Process returned 0 (0x0)   execution time : 30.862 s
Press any key to continue.
```

6.

```
C:\Users\User\Desktop\hw5_code_problem06.cpp.exe
Warehouse Menu
-----
1. apple
2. banana
3. orange
4. pencil
5. watch
6. tie
7. knife
8. paper
9. eraser
10. Quit
Your choice is: 1
Want do you want to do to the apple
1. ADD
2. REMOVE
Your select is: 1
How many items do you want to add? 150

Warehouse Menu
-----
1. apple
2. banana
3. orange
4. pencil
5. watch
6. tie
7. knife
8. paper
9. eraser
10. Quit
Your choice is: 2
Want do you want to do to the banana
1. ADD
2. REMOVE
Your select is: 2
How many items do you want to remove? -10
The quantity should not less than 1 or more items than the bin currently holds,please try again.
How many items do you want to remove? 100

Warehouse Menu
-----
1. apple
2. banana
3. orange
4. pencil
5. watch
6. tie
7. knife
8. paper
9. eraser
10. Quit
Your choice is: 10
There are now 250 apple
There are now 0 banana
There are now 100 orange
There are now 100 pencil
There are now 100 watch
There are now 100 tie
There are now 100 knife
There are now 100 paper
There are now 100 eraser
```

7.

非平局:

```
C:\Users\User\Desktop\hw5_code_problem07.cpp.exe
|*|*|*|
|*|*|*|
|*|*|*|

Choose a position to put your O or X.(input the row and column number.)

For player1:
Choose the row.(Enter 1-3)1
Choose the column.(Enter 1-3)3

|*|*|X|
|*|*|*|
|*|*|*|

For player2:
Choose the row.(Enter 1-3)1
Choose the column.(Enter 1-3)1

|O|*|X|
|*|*|*|
|*|*|*|

For player1:
Choose the row.(Enter 1-3)2
Choose the column.(Enter 1-3)3

|O|*|X|
|*|*|X|
|*|*|*|

For player2:
Choose the row.(Enter 1-3)2
Choose the column.(Enter 1-3)2

|O|*|X|
|*|O|X|
|*|*|*|

For player1:
Choose the row.(Enter 1-3)3
Choose the column.(Enter 1-3)3

|O|*|X|
|*|O|X|
|*|*|X|

Player1 wins!.

Process returned 0 (0x0)   execution time : 44.869 s
Press any key to continue.
```

平局:

```
C:\Users\User\Desktop\hw5_code_problem07.cpp.exe
*|*|*|
*|*|*|
*|*|*|

Choose a position to put your O or X.(input the row and column number.)

For player1:
Choose the row.(Enter 1-3)1
Choose the column.(Enter 1-3)1

X|*|*|
*|*|*|
*|*|*|

For player2:
Choose the row.(Enter 1-3)1
Choose the column.(Enter 1-3)1
You can't put here, it has been used.
Choose the row.(Enter 1-3)1
Choose the column.(Enter 1-3)2

X|O|*|
*|*|*|
*|*|*|

For player1:
Choose the row.(Enter 1-3)2
Choose the column.(Enter 1-3)1

X|O|*|
X|*|*|
*|*|*|

For player2:
Choose the row.(Enter 1-3)2
Choose the column.(Enter 1-3)2

X|O|*|
X|O|*|
*|*|*|

For player1:
Choose the row.(Enter 1-3)3
Choose the column.(Enter 1-3)2

X|O|*|
X|O|*|
*|X|*|
```

```
C:\Users\User\Desktop\hw5_code_problem07.cpp.exe
For player1:
Choose the row.(Enter 1-3)3
Choose the column.(Enter 1-3)2

|X|O|*|
|X|O|*|
|*|X|*|

For player2:
Choose the row.(Enter 1-3)3
Choose the column.(Enter 1-3)1

|X|O|*|
|X|O|*|
|O|X|*|

For player1:
Choose the row.(Enter 1-3)1
Choose the column.(Enter 1-3)3

|X|O|X|
|X|O|*|
|O|X|*|

For player2:
Choose the row.(Enter 1-3)2
Choose the column.(Enter 1-3)3

|X|O|X|
|X|O|O|
|O|X|*|

For player1:
Choose the row.(Enter 1-3)3
Choose the column.(Enter 1-3)3

|X|O|X|
|X|O|O|
|O|X|X|

End in a tie!

Process returned 0 (0x0)   execution time : 26.826 s
Press any key to continue.
```