HOMEWORK 06

GET STRONGER.

GOAL 01 (30PT)

- Write a program that uses a for statement to print a table of ASCII values for the characters in the ASCII character set from the range which user input.
- The program should print the decimal value, octal value, hexadecimal value and character value for each character.
- The maximum range is from 0 to 126 in the decimal number.
- Hint : try to use showbase.

EXAMPLE 01

```
Please input the range
33 59
Decimal   Octal    Hexadecimal     Character
     33       041            0x21           !
     34       042            0x22           "
     35       043            0x23           #
     36       044            0x24           $
     37       045            0x25           %
     38       046            0x26           &
     39       047            0x27           '
     40       050            0x28           (
     41       051            0x29           )
     42       052            0x2a           *
     43       053            0x2b           +
     44       054            0x2c           ,
     45       055            0x2d           -
     46       056            0x2e           .
     47       057            0x2f           /
     48       060            0x30           0
     49       061            0x31           1
     50       062            0x32           2
     51       063            0x33           3
     52       064            0x34           4
     53       065            0x35           5
     54       066            0x36           6
     55       067            0x37           7
     56       070            0x38           8
     57       071            0x39           9
     58       072            0x3a           :
     59       073            0x3b           ;
```

GOAL 02 (30PT)

- 1. Write a program that uses class templates.
- 2. It has the functions of sorting, inverting, searching and summing array elements
- 3. Then generate three template classes whose type arguments are int type , double type, and float type.

- P.S. You must use class templates.

EXAMPLE 02

```
请输入元素個數:
5
请输入int型數組元素
10 9 8 7 6
Array構造函數:
10 9 8 7 6
int 型數組:
排序:
10 9 8 7 6
倒置:
6 7 8 9 10
请输入要查找的元素: 20
未找到該元素
求和:
數組和為：40
```

```
请输入元素個數:
5
请输入int型數組元素
10 9 8 7 6
Array構造函數:
10 9 8 7 6
int 型數組:
排序:
10 9 8 7 6
倒置:
6 7 8 9 10
请输入要查找的元素: 8
是第3个元素
求和:
數組和為：40
```

```
请输入元素個數:
2 2 2
请输入int型數組元素
10 8
请输入double型數組元素
1.55 3.78
请输入float型數組元素
4.5 6.8
```

GOAL 03 (40PT)

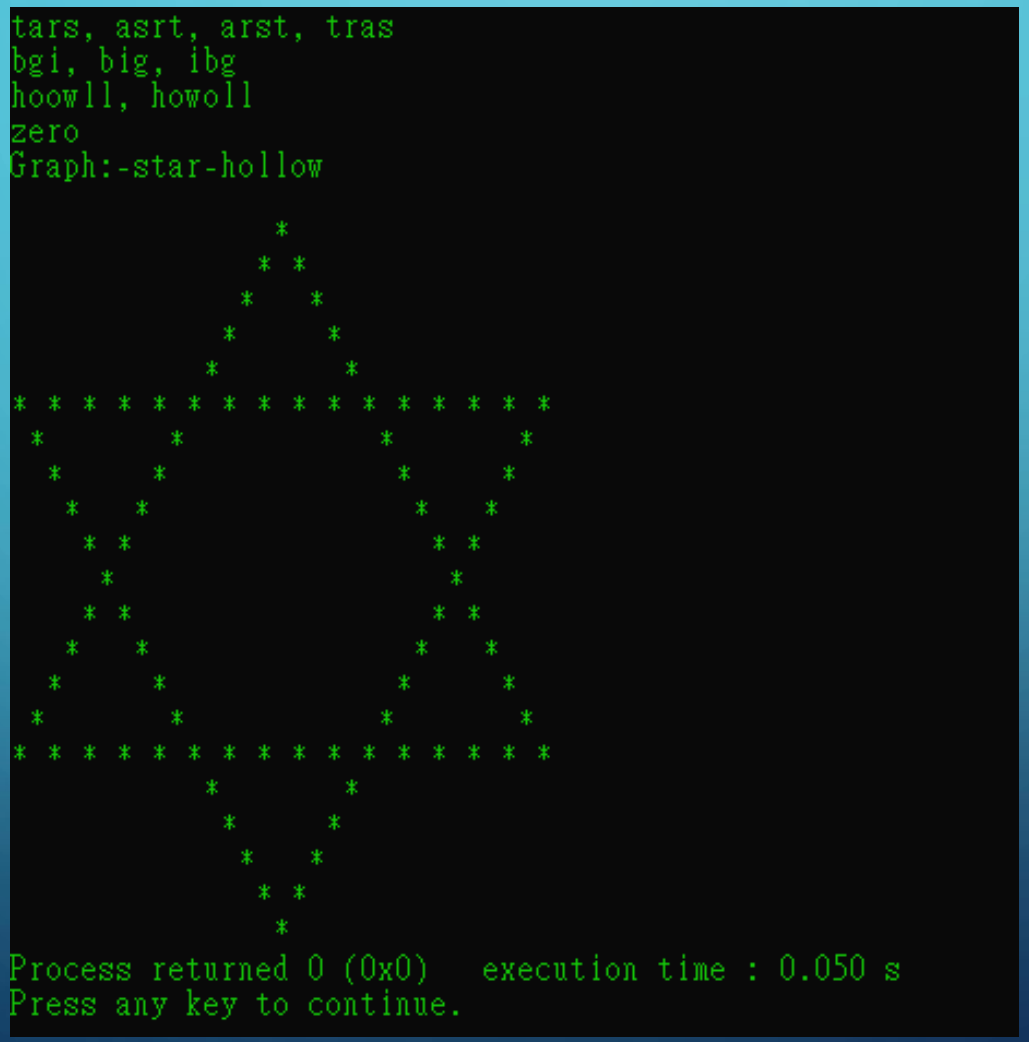
- Given a string array, combine letter dyslexia together.
- letter dyslexia words refer to strings with the same letters but different arrangements.
- There may be stars, triangles, and diamonds inside.
- And it will be further divided into solid or hollow.
- You have to find out, and then use * to draw the figure according to the vocabulary and the solid or hollow.

EXAMPLE 03 (01)

```
Input:
eat, tea, diamond, ate, monddia, solid
Output:
ate,eat,tea
diamond,monddia
solid
Graph:-diamond-solid

 *
***
 *
```

EXAMPLE 03 (02)



SUBMIT YOUR HOMEWORK

- Please make sure again that your code is ready to be compiled.
  - If it can't be compiled, it will not be corrected this time (0 points)
  - TA will try to inform you and ask you to make up for it.
  - After uploading, you still need to complete the DEMO within the specified time.
- Please use s1234567.GOAL1 、 s1234567. GOAL2 、 and s1234567. GOAL3 as your file names
  - Replace s1234567 by your own student ID.
  - Pack all the file into a folder named "s1234567_hw6".
  - Zip it and Upload to Portal.
  - Attach a s1234567_hw6.txt if u want to add some additional information to TA.

Warning : 10 points will be deducted if one of them is violated.

FIGHTING~~~