Week-2 ::: Day-1 + Day-2

Topic: Nested loop + Bubble sort

Tutorial link:

Nested Loop - https://beginnersbook.com/2014/01/c-for-loop/

Pattern:

https://www.youtube.com/watch?v=irzvR4VEt4M

https://www.youtube.com/watch?v=nouUL1X_3GI

https://www.youtube.com/watch?v=uGySRUscoRo

https://www.youtube.com/watch?v=CRZSPHCQduo

https://www.youtube.com/watch?v=f39LL1_4_Y8

https://www.youtube.com/watch?v=_YeOERaD81M

Bubble Sort:

https://youtu.be/ZUI0VQ9JvDw

https://anindyaspaul.com/blog/2013/08/17/bubble-sort/

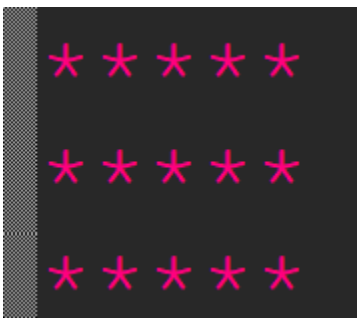
MINIMUM=9 -- MEDIUM=11 -- MAXIMUM=13

Tasks:

1.Input N and M. Print N lines where every line contains M stars.

Example: If N=3 and M=5 then,

The corresponding output is,



2. Input a value N and print N lines in following way.

Example: If N=4 then,

The corresponding output is,

3. Input a value N and print N lines in following way.

Example: If N=4 then,

The corresponding output is,

4. Input a value N and print N lines in following way.

Example: If N=4 then,

The corresponding output is,

5.Input a value N and print N lines in following way.

Example: If N=4 then,

The corresponding output is,

6. Input a value N and print N lines in following way.

Example: If N=4 then,

The corresponding output is,

7. Input a value N and print N+(N-1) lines in following way.

Example: If N=4 then,

The corresponding output is,

8. Given an array, Find all possible pairs.

9. Given two number X and N. Find the digit sum of all numbers between X to N where X<=N.

10. Given an array and value X. Find if it possible two make summation of two elements of that array equal to X. If possible print those two element otherwise print -1.

11. Given an array. Sort this array in descending order using bubble sort.

12. Given an array of integers. Find the number of swaps to make the array sorted if we use bubble sort algorithm.

13. Given an array of distinct integers, sort the array and find all pairs where a<b.

Explanation For Problem_8:

You are given an input N as array size then You are given N element of the array. You have to find all possible pairs formed by the values of the array.

Test Case For Problem 8:

Input_1:

3

1 2 3

Output_1:

1 1, 1 2, 1 3, 2 1, 2 2, 2 3, 3 1, 3 2, 3 3,

Input_2:

2

4 5

Output_2:

4 4, 4 5, 5 4, 5 5,

Input_3:

4

5 3 4 2

Output_3:

5 5, 5 3, 5 4, 5 2, 3 5, 3 3, 3 4, 3 2, 4 5, 4 3, 4 4, 4 2, 2 5, 2 3, 2 4, 2 2,

Explanation For Problem_9:

If X = 10 and N = 12 then,

Digit summation of 10 is 1.

Digit summation of 11 is 2.

Digit summation of 12 is 3.

Total digit summation of 10 to 12 is 6.

Test Case For Problem 9:

Input_1:

10 12

Output_1:

6

Input_2:

11 20

Output_2:

56

Input_3:

17 238

Output_3:

2133

Explanation For Problem_10:

lets given an array 3 4 5 6 and a value 9. we you have to check all pairs of that array and have to check if the sum of the pair match the value 9, here answer is (3,6) and (4,5). If the sum of any pair do not match the value then just print "-1" without quote.

Test Case For Problem 10:

Input_1:

5 9

1 2 3 4 5

Output_1:

4 5,

Input_2:

5 7

1 2 3 4 5

Output_2:

2 5, 3 4,

Input_3:

5 10

1 2 3 4 5

Output_3:

-1

Input_4:

7 19

3 6 8 9 2 11 3

Output_4:

8 11,

Explanation For Problem_11:

Your are given an array, Sort the array as the greater value comes first by using bubble sort algorithm.

Test Case For Problem 11:

Input_1:

5

1 2 3 4 5

Output_1:

5 4 3 2 1

Input_2:

5

1 2 5 4 5

Output_2:

5 5 4 2 1

Explanation For Problem_12:

Lets take an array 1 3 2. Here if we swap 3 with 2 the array will be sorted and the number of swap is 1.

Test Case For Problem 12:

Input_1:

5

3 4 2 1 5

Output_1:

5

Input_2:

4

1 2 2 1

Output_2:

2

Input_3:

9

3 534 6 4 2 45 8 8 1

Output_3:

15

Explanation For Problem_13:

After sorting the array in ascending order from all possible pair you just have to print the pairs where the first value is less than the last value. If the array is 4 2 3 then the pair will be 2 3, 2 4, 3 4,

Test Case For Problem 13:

Input_1:

3

1 2 3

Output_1:

1 2, 1 3, 2 3,

Input_2:

4

3 5 4 5

Output_2:

3 4, 3 5, 4 5

Input_3:

6

9 3 4 3 6 9

Output_3:

3 3, 3 4, 3 6, 3 9, 3 9, 3 4, 3 6, 3 9, 3 9, 4 6, 4 9, 4 9, 6 9, 6 9, 9 9,