Python Lab 2

1. Given two numbers N and M, a 2D array of size $N * M$ and a number X. Determine whether X **exists** in the 2D array A or **not**

   Input: output: number is found

   2 2

   1 2

   3 4

   3

2. Given a string S. Print the **smallest** string that can be obtained by doing the following operations on the original string **only**:

   - **Split** the string into two **non empty** consecutive strings (for example if you split the String into X and Y so S=X+Y.
   - **Sort** every one of separated string.
   - **Re-concatenate** the two strings into one string.

   Note: If you couldn't split the string print the **original** string.

   Input: acmicpc output: acccimp

3. Given a number N and an array A of N digits **(not separated by space)**. Print the **summation** of these digits.

   Input: output: 12

   5

   13305

4. Omani and Mubarak were bored during their trip to Alexandria. So they decided to play a game. The game is that Mubarak gives Omani N numbers and Omani has to sort the array as follows sort range [1,1+m] then [2,m+2] then [3,m+3] , ... [n-m,n]. Then Mubarak will ask smar to find number in postion K. Smar can't find the number. Can you find this number and help smar?

   Input: contains a single integer N ($1 \le M <= K <= N$), n the size of the array ,m size of range , k the postion of number that nada needs.

   The next line will contain N integer.

   Input: output: 3

   6 3 4

   1 2 4 7 6 3

5. Write a function that takes a string as input and returns a dictionary containing the frequency of each word in the string.