Coding Exercise 2

1. Write a code to write a dictionary into a .txt file. For example, if the dictionary is

   {"Name":["abc","def","ghi"],"Mark 1":[7,8,9],"Mark 2":[6,3,8]},

   the code should print the following in the text file:

   Name=[abc,def,ghi]
   Mark 1=[7,8,9]
   Mark 2=[6,3,8]

   (*Hint:* The command *df.columns* gives the name of the columns in the dataframe *df.*)

2. Write a code to sort the data in a dataframe based on a given column, without using any in-built command. In the above example, if you sort the dictionary based on "Mark 2", then your dataframe becomes

   {"Name":["def","abc","ghi"],"Mark 1":[8,7,9],"Mark 2":[3,6,8]}.

3. For a given string, write a code to print the number of lower case alphabets ("a-z"), upper case alphabets ("A-Z"), numbers ("0-9"), and other characters (space bar, symbols, etc.).

4. Write a code to print the number of characters in each word of a given string.

5. Write a code to find if two strings are permutations of each other. For example, "silent" and "listen" are permutations; "you are" and "are you" are permutations; but "loot" and "lot" are not permutations.

6. Write a code to print the longest common substring in two given strings. For example, if the strings are "conic section" and "carbonic acid", your code should print **"onic "** with a space at the end.