Python for physicists - exercise 8

Submission instructions - please read carefully:
• To be submitted by *** in the moodle (Lemida) system.
• *** files with py suffixes must be submitted - named exactly as detailed below for each exercise. That is to say that:
• Do not submit complete projects, libraries, zip files, etc., and do not submit all exercises in one file, but in separate files with the names listed below.
• Make sure that the files run and do what is needed (on a recent version of Python, 3.5 or higher).
• Use only the commands we learned in the practice.

Exercise 1. Submit it as file name: ex08_01.py

In this exercise, use the *pandas* library.
Go to the website:
https://catalog.data.gov/dataset/
and download the *csv* file of *Electric Vehicle Population Data* in the state of Washington.
a.) Write a function named *cars_per_seller* that loads the downloaded file and prints a table to the screen showing the number of registered vehicles from each car manufacturer (*Make* column). For example, according to the file, *AUDI* sold *2332* cars and *BMW* sold *4680*, so the table should include the rows
AU DI 2332
BMW 4680
b.) Write a function named *best_seller* that loads the downloaded file and prints to the screen the name of the car manufacturer (i.e., *Make* column) with the most registered vehicles.

Exercise 2. Submit it as file name: ex08_02.py

In this exercise, use the *pandas* library.
At the beginning of the file, load the same file from the previous **Exercise 1** again.
a.) Write a code that prints for the possible driving distance of electric cars (***Electric Range*** column) the minimum value, the maximum value, the average value, and the median value. Write below this code in a comment the results you obtained.
b.) Write a code snippet that prints the same values requested in part **a**, only for cars with an ***Electric Range*** value greater than 0. Write below this code in a comment the results you obtained.
c.) Write a code that prints a table of the various manufacturers' names, and next to them the average Electric Range of their cars. For example, the table should include, among other things, the rows

<div align="center">

AU DI 62.876930
AZUREDYNAMICS 56.000000

</div>

d.) Write a code that prints the maximum value in the table from part **c**, and the manufacturer for which this maximum value is obtained. Write below this code in a comment the results you obtained.

Exercise 3. (Optional Exercise - Not for Submission - But Recommended!). Submission File Name: Do Not Submit!

Write a function that performs the task from **Exercise 1**, part a above, without using any *Python* libraries other than *pandas/numpy* directly but through open command, read it line by line, and split each line into components for vehicles.