Data Science Africa 2019 Accra
Python Programming Competency Task

You have been provided with a text file CountryData.csv containing data on countries in Africa. This data includes:
- Country name
- Population
- Literacy rate (in %)
- Number of mobile subscriptions
- Number of internet users
- Amount of electricity production (in billions of kWh)
- Amount of electricity consumption (in billions of kWh)

Write a Python program (as a script either in a single .py file, or in a Jupyter notebook) that reads CountryData.csv file, processes it, and produces a new file called output.txt. The output.txt file will contain answers to the following questions, one per line. Do not include any other information on each line other than the answer to the corresponding question. If a question has multiple answers (e.g. possibly question 5), put all answers to the question on the same line, separated by commas.

1. What is the total population of Africa?
2. What is the most populous African country?
3. What is the "average" literacy rate, weighted by population, in Africa? This is computed by weighting each country's literacy rate by the country's population, and dividing by the total population of Africa.
4. What country in Africa has the highest number of mobile subscriptions *per capita*? (*per capita* means divided by the population)
5. Which countries in Africa produce more electricity than they consume (i.e., which countries are electricity exporters)?
6. Considering the entire continent of Africa as a whole, what is the difference between the electricity produced *per capita* and the electricity consumed *per capita*?

Submit your solution via the submission link, on or before 20th September 2019.