**Group homework: Group of max 3 students Deadline: 22/12/2021**

**Question 1:** Practice the following Tutorial and exercises: (**Note: these questions can be asked in quizzes and exams**)

* [**https://cloudxlab.com/blog/numpy-pandas-introduction/**](https://cloudxlab.com/blog/numpy-pandas-introduction/)
* [**https://towardsdatascience.com/the-data-science-trilogy-numpy-pandas-and-matplotlib-basics-42192b89e26**](https://towardsdatascience.com/the-data-science-trilogy-numpy-pandas-and-matplotlib-basics-42192b89e26)
* [**https://www.hackerearth.com/practice/machine-learning/data-manipulation-visualisation-r-python/tutorial-data-manipulation-numpy-pandas-python/tutorial/**](https://www.hackerearth.com/practice/machine-learning/data-manipulation-visualisation-r-python/tutorial-data-manipulation-numpy-pandas-python/tutorial/)

<https://www.machinelearningplus.com/python/101-numpy-exercises-python/>

Numpy Exercises: Submit solutions of any 30 exercises.

<https://www.machinelearningplus.com/python/101-pandas-exercises-python/>

Pandas Exercises: Submit solutions of any 30 exercises.

**Question 2:**

Try these tutorials, and submit your code and report (explanation of the tutorial steps,

containing snapshots of your plots etc,).

The links of these two tutorials are as follows:

* <https://www.analyticsvidhya.com/blog/2016/01/complete-tutorial-learn-data-science-python-scratch-2/>
* <https://www.analyticsvidhya.com/blog/2014/09/data-munging-python-using-pandas-baby-steps-python/>
* <https://www.hackerearth.com/practice/machine-learning/data-manipulation-visualisation-r-python/tutorial-data-manipulation-numpy-pandas-python/tutorial/>

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**Other helpful material:**

<https://www.youtube.com/watch?v=rvY0MskPps0>

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