**Assignment 2**

This assignment will be graded by 100 point scale and could compose 10% of your total grade. You must send the Python code and the report to [na.melkonyan@gmail.com](mailto:na.melkonyan@gmail.com).

Deadline: 29 March 2019, 11:59 pm (GMT+4)

* **Programming**:
  + Don't use native Python functionality in case the task states to *implement***.**
  + In this assignment all tasks refer to Linear Regression topic.
* **Extra Tasks:** Extra tasks are optional. For each extra task you can get max 5 points.
* **Data:** Please, use HW\_gender data from Assignment 1.
* **Report Topic:** Use the weight to predict the height of a person. You can try different variants: per gender or for overall data. Please, argue why did you prefer one variant over another in the report.
* **Report**: It is intended to the reader who is not familiar neither with the task nor with the problem. Reports should contain expressive language, details, plots and arguments. Every your conclusion or proposition should be backed up with an experiment.
* **Extra Points:** Extra points will be granted for extra creativity, e.g. Sturges' formula has been used to find the number of bins in the histogram.

Take attention on the following criteria:

* Feedback for Assignment 1
* Interpretations
* Variety of plots
* Detailed explanation of plot
* Interpretation of key elements in Linear Regression
* Per gender model vs overall
* Interaction term
* Prediction power of the model
* Creativity