**Statistics and Exploratory Data Analysis**

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**Laboratory: Two samples tests**

In each exercise use a **significance level of 0.05.**

**Exercise 1:**

1. Download and install a library *datasets.* Create a variable *DAX* from a dataset *EuStockMarkets* for a DAX index (first column) and observations with row numbers from 201 to 240. Create a variable *Period* with a value “First” for the first 20 observations and with a value “Second” for the next 20 observations.
2. Decide which test from two-samples tests is the most appropriate for checking whether prices from the first period are equal to prices in the second period.
3. Is there enough evidence to support a claim that prices in both periods are not significantly different?
4. Would we change our assessment if we would use other two-sample tests?

**Exercise 2:**

1. Download and install a library *datasets.* Create s variable *Index* with values *SMI* for first 20 observations and *CAC* for next 20 observations. Create a variable *Price* with prices of SMI and CAC indices (2 & 3 column) from a dataset *EuStockMarkets* (add prices for the first 20 observations for each index).
2. Decide which test from two-samples tests is the most appropriate for checking whether prices of the first index are equal to the prices of the second index in the analysed period.
3. Is there enough evidence to support a claim that prices for both indices are not significantly different?
4. Would we change our assessment if we would use other two-sample tests?