AGH UST ESA LAB 2	Confidence Interval, Hypothesis testing and censored and uncensored data

1. The One Variable Analysis procedure is one of the primary procedures for analyzing a single column of numeric data. It calculates summary statistics and confidence intervals, performs hypothesis tests, and creates a variety of graphical displays. The purpose of this exercise is to perform hypothesis testing and analyze the results. Also how the confidence intervals in the measurement of uncertainty is useful for the analysis of data. Visit link for details.

2. The Distribution Fitting (Uncensored Data) procedure fits any of 46 probability distributions to a column of numeric data. The data are assumed to be uncensored, i.e., the data represent random samples from the selected distribution. If requested, many distributions may be fit and ordered by the stat software for their ability to match the data. Goodness-of-fit tests are performed to determine which distributions adequately model the observed values. Visit the link and we can discuss during the lab which distributions to include in report.

3. The *Distribution Fitting (Arbitrarily Censored Data)* procedure analyzes data in which one or more observations are not known exactly. In particular, observations may be:

    - **Left-censored**: known only to be less than a stated value.
    - **Right-censored**: known only to be greater than a stated value.
    - **Interval censored:** known only to fall within a stated interval.

    The procedure calculates summary statistics, fits distributions, creates graphs, and calculates a non-parametric estimate of the survival function. The link mentions the details which could be helpful in preparation of the lab report.