## Task 4

Description – Using PSP2, write a program to calculate relative size ranges for very small, small, medium, large, and very large ranges using standard deviation of an assumed log-normal distribution of sizes.

Design:

* Use LinkedList from Task 1 and enhance with util method of returning a list with natural logarithm values – e.g. if Xi is list element at index i, Yi should be ln(Xi).
* Use two util functions to calculate average of logarithmic values and variance and one main function to retrieve all relative sizes
* Store intermediate values such as sum of multiplications of two lists or sum of squared values in local variables

Design Review:

Most of the needed calculations are provided as util functions from List class, the two main variables are calculated in a separate functions and the end result in a third one accepting them as arguments.

Planned:

List can be used for storage and some util functions. Having in mind rounding problems and data from previous task, Using procedure 4C from PROBE as we have some historical data, but it is not correlating.

* Psize = (actual total added and modified size to date/plan total added and modified size to date) = (47 + 8 / 40 + 10) = 1.1
* Ptime coding – 1 hours
* Ptime testing – 2 hours
* Ptime total – 3 hours

Actual:

* Asize – 55 LOC
* Atime coding – 1 hours
* Atime testing – 2 hours
* Atime total – 3 hours

Defects found: 1

What – Wrong argument for variance function

When – Test phase

Fix – Just used the correct list, took less than 0.1 hours

Tests:

Relative size ranges

✓ Should pass for Class LOC

✓ Should pass for Pages per chapter